

Effects of Think-Pair-Share and Problem-Solving Teaching Methods on Academic Achievement in Financial Accounting Among Business Education Students in Public Universities, Southwest, Nigeria

**Elizabeth Remilekun ORE
LCU/PG/002968**

**Being a PhD Thesis Submitted to the Department of Arts & Social Science Education,
Faculty of Education, Lead City University, Ibadan, Oyo State, Nigeria**

**In Partial Fulfilment of the Requirements for the Award of Doctor of Philosophy
Degree (PhD) in Business Education**

2025

Certification

This is to certify that Elizabeth Remilekun ORE with Matriculation Number LCU/PG/002968 carried out this research work titled “Think-Pair-Share, Problem-Solving Teaching Method and Business Education Students Academic Achievement in Financial Accounting in Public Universities, Southwest, Nigeria” in the Department of Arts and Social Sciences Education, Faculty of Education, Lead City University, Ibadan, Oyo for the award of Doctor of Philosophy Degree (PhD) in Business Education and that this has not been previously submitted.

Prof. Senimetu Ileuma
(Supervisor)

Date

Dr. Seyi David
(Co-Supervisor)

Date

Dr. Susan Pitan
(Head of the Department)

Date

Dedication

This research work is dedicated to the Almighty God, who made this work a success and helped me throughout my Doctoral Degree programme.

Lead City University Ibadan DO NOT COPY

Acknowledgement

The researcher whole-heartedly record her unreserved gratitude to Lead City University, Ibadan for the opportunity given to her to register as a Doctoral student for her PhD programme in Business Education and for providing a conducive and friendly atmosphere for learning and research. The researcher also extends an unreserved appreciation to Lagos State University, Faculty of Education staff and students for their support and cooperation during the conduct of this study. Apart from this, the researcher also wants to appreciate the Department of Educational Management and Business Studies, Olabisi Onabanjo University, Ago-Iwoye and the Department of Technology and Vocational Education, University of Lagos, Akoka for the enabling environment, huge contributions and supports during the data collection phase for this research work.

The researcher also appreciates her supervisor, Prof. S. Ileuma for her motherly and mentorship role in ensuring that this research work is duly carried out and completed to time. Her frequent push and delight in students' growth and progress is topnotch and the researcher's co-supervisor, Dr. S. David for his constant push, encouragement and support. The researcher's appreciation goes to the following lecturers for their intellectual contributions towards the success of this study: Prof. A. O. Oredein (Provost, Postgraduate College), Prof. D. A. Odeleye (Dean, Faculty of Education), Prof. E. A. Erwat and Prof. P. O. Yara. The Head of Department Dr. S. O. Pitan for the support and encouragement towards the successful completion of this study. Also, to all lecturers in the Faculty of Education and Department of Arts and Social Science Education: Dr. M. M. Ayantunji, Dr. O. T. P. Killian, Dr. S. Obi, Dr. O. O. Gambo, Dr. D. O. Ayeni, Dr. Y. A. Ibikunle, Dr. H. Abdulsemihi, Dr. A. A. Olaniyi, Dr. J. Kolashi and Miss D. Awoniyi.

The researcher's hearty thanks goes to her parents Mr. and Mrs. Orefuwa whose support cannot be quantified and to her brothers and sisters; Dr. D. O. Orefuwa, Dr. S. A. Orefuwa, Miss E.T. Orefuwa, Dr. M. Orefuwa, Mrs M. Adeyemi, Miss T. Orefuwa, Mrs F. Isaac and her Husband Mr. E. Ore for their tremendous supports both financially and morally which made it possible for realisation of this dream. The researcher special appreciation goes to her beautiful kids A. Ore, R. Ore and O. Ore for their constant understanding, prayers and love during this journey. A hearty appreciation goes to Prof. M. O. B. Mohammed, Prof. T. Owolabi, Prof. O. G. Akindoju, Prof. J. P. Gbenu and Dr. G. A. Ibikunle from the Faculty of Education, Lagos State University for their words of encouragement, moral and financial supports and for their mentorship roles before and during this programme. The researcher also acknowledges the contributions and supports of senior colleagues, colleagues and friends in persons of Dr. S. M. O. Ayo-Sobowale, Dr. A. A Adeleke, Dr. E. S. Gbesoevi, Dr. Orunbon, Dr. Akinyemi, Dr. A. S. Ifenaike, Dr. B. O. Makinde, Dr. I. Onasanya, Mrs. A. Mohammed, Mrs. M. Abudu, Mr. M. O. Ogungbo, Mr. I. Ojo, Mr. B. S. Olayinka, Pastor W. C. Udosen, Assistant Pastor D. O. Ariyibi, Dr. V. Sofolahan, Mr. Julius, her colleagues at workplace, her course mates and friends whose names are too many to mention for their contributions to the success of her academic pursuit. God Almighty will continue to bless you all in Jesus name.

Finally, Even though the above-mentioned institutions and persons have assisted in the process of this research work, the researcher alone stands responsible for the errors, if any, found in the work.

Abstract

The teaching of Financial Accounting in universities is of great interest as the general low academic achievement of Business Education students in this course in public universities in Nigeria is becoming alarming. It is based on this that study investigated the effects of Think-Pair-Share and Problem-Solving Teaching Methods on Academic Achievement in Financial Accounting among Business Education Students in Public Universities, Southwest, Nigeria. The study anchored on three theories namely: Walberg Theory of Educational Productivity, Social Interdependence Theory and Gestalt Theory. One research question was raised while five hypotheses were formulated and tested at 0.05 level of significance. Quasi-experimental research design was adopted. The population of the study was 1,270 200 level Business Education students from all public universities in Southwest, Nigeria offering Business Education as a course of study. Sample size was 423 intact class participants drawn using simple random and purposive sampling techniques; however, only 384 participated. Two research instruments; Financial Accounting Achievement Test and Instructional Guide were used for the study with a reliability coefficient of 0.75 for the Financial Accounting Achievement Test" (FAAT) instrument. One-way Analysis of Variance (ANOVA) was used to test Hypothesis One; a Two-way Analysis of Variance (ANOVA) was used to test Hypothesis Two while dependent sample test (paired sample t) was used to test Hypotheses Three, Four and Five with the aid of Statistical Product and Service Solution version 27.0. Findings of the research question showed that 185 students representing 48.2% fell in the low achievement group, 154 students representing 40.10% fell into the moderate achievement group while 45 students, corresponding to 11.72% performed excellently. Findings of hypotheses showed that: the mean score (59.75 ± 12.46) of students who were taught using problem-solving teaching method, indicates superior performance compared to those taught with the think-pair-share method (51.59 ± 14.16) and the lecture method (41.94 ± 11.86) with a F-statistic of 73.470 with p-value of 0.000, ($F(1, 378) = 367, p = 545$) also indicated that gender by itself does not significantly affect students' academic achievements. Also, the mean score (51.59 ± 14.16) of students who were taught using Think-Pair-Share teaching method was significantly different ($t = 5.520, df = 78, p < 0.01$) from the mean score of students taught using conventional lecture method (40.75 ± 11.61), the mean score (59.70 ± 12.52) of students who were taught using problem-solving teaching method was significantly different ($t = 11.405, df = 109, p < 0.01$) from the mean score of students taught using conventional lecture method (40.85 ± 10.88). The pre-test mean score (43.75 ± 13.66) is significantly different ($t = -7.659, df = 383, p < 0.01$) from the post-test mean score of students taught using think-pair-share, problem solving and conventional lecture methods (49.08 ± 14.68). It was concluded that the use of learner-centred methods such as think-pair-share and problem-solving teaching methods are more effective in improving Business Education students' academic achievement in Financial Accounting. The researcher recommended among others that lecturers should implement a mixed strategy that incorporates TPS and problem-solving teaching methods in order to improve overall student engagement and achievement in Financial Accounting.

Keyword: Corporative Learning, Financial Accounting, Problem-Solving, Think-Pair-Share
Word Count: 500

Table of Contents

| Content | Page |
|--------------------------------------|-------------|
| Title Page | i |
| Certification | ii |
| Dedication | iii |
| Acknowledgement | iv |
| Abstract | vi |
| Table of Contents | vii |
| List of Tables | xii |
| List of Figures | xiv |
| List of Acronyms | xv |
| Chapter One: Introduction | |
| 1.1 Background to the Study | 1 |
| 1.2 Statement of the Problem | 11 |
| 1.3 Aims and Objectives of the Study | 12 |
| 1.4 Research Question | 13 |
| 1.5 Hypotheses | 13 |
| 1.6 Significance of the Study | 14 |
| 1.7 Scope of the Study | 15 |
| 1.8 Limitation of the Study | 16 |
| 1.9 Operational Definition of Terms | 16 |
| Endnotes | 18 |

Chapter Two: Literature Review

| | | |
|-----------|--|----|
| 2.1.1 | Conceptual Review | 22 |
| 2.1.2 | Business Education | 23 |
| 2.1.3 | Financial Accounting | 26 |
| 2.1.4 | Learning | 28 |
| 2.1.5 | Teaching and Teaching Strategy | 29 |
| 2.1.5.1 | Principles of Teaching | 30 |
| 2.1.6 | Teaching Methods | 33 |
| 2.1.6.1 | Types of Teaching Methods | 34 |
| 2.1.6.1.1 | Teacher-Centred | 34 |
| 2.1.6.1.2 | Learner-Centred Method | 35 |
| 2.1.6.2 | Differences between Teaching Strategy and Teaching Methods | 36 |
| 2.1.7 | Cooperative Learning | 36 |
| 2.1.7.1 | Objectives of Cooperative Learning | 40 |
| 2.1.7.2 | Elements of Cooperative Learning | 41 |
| 2.1.7.3 | Factors Contributing to Successful Cooperative Learning | 43 |
| 2.1.7.4 | Types of Cooperative Learning | 44 |
| 2.1.8 | Think-Pair-Share | 44 |

| | | |
|--------|--|----|
| 2.1.9 | Problem-Solving Teaching Method | 47 |
| 2.1.10 | Student's Academic Achievement | 50 |
| 2.1.11 | Teaching Methods and Financial Accounting | 53 |
| 2.1.12 | Cooperative Learning and Students' Academic Achievement in Financial Accounting | 53 |
| 2.1.13 | Think-Pair-Share and Students' Academic Achievement in Financial Accounting | 54 |
| 2.1.14 | Problem-Solving Method and Business Education Students' Academic Achievement in Financial Accounting | 55 |
| 2.1.15 | Gender and Students' Academic Achievements in Financial Accounting | 56 |
| 2.2 | Theoretical Framework | 57 |
| 2.2.1 | Walberg Theory of Educational Productivity | 57 |
| 2.2.2 | Social Interdependence Theory | 59 |
| 2.2.3 | Gestalt Theory of Problem-Solving | 60 |
| 2.3 | Review of Empirical Studies | 63 |
| 2.3.1 | Studies on Cooperative Learning Strategy and Students' Academic Achievement | 63 |
| 2.3.2 | Think-Pair-Share and Student Achievement | 70 |
| 2.3.3 | Problem-Solving and Student Achievement in Financial Accounting | 76 |
| 2.3.4 | Cooperative Learning, Problem-Solving and Student Achievement | |

| | | |
|---|---|-----|
| | in Financial Accounting | 82 |
| 2.4 | Conceptual Framework | 84 |
| 2.5 | Summary of Gaps in Literature Reviewed | 85 |
| | Endnotes | 88 |
| Chapter Three: Methodology | | |
| 3.1 | Research Design | 96 |
| 3.2 | Population of the Study | 97 |
| 3.3 | Sample and Sampling Techniques | 98 |
| 3.4 | Description of the Research Instruments | 99 |
| 3.5 | Validity of the Research Instruments | 99 |
| 3.6 | Reliability of the Research Instrument | 100 |
| 3.7 | Methods of Data Collection | 100 |
| 3.8 | Methods of Data Analysis | 104 |
| 3.9 | Ethical Approval | 104 |
| | Endnotes | 105 |
| Chapter Four: Results and Discussion of Findings | | |
| 4.1 | Instrument Return Rate | 107 |
| 4.2 | Presentation of Data | 108 |
| 4.2.1 | Demographic Data Analysis | 108 |
| 4.2.2 | Research Questions | 112 |
| 4.2.3 | Test of Hypotheses | 114 |
| 4.3 | Discussion of Findings | 130 |

| | |
|---|-----|
| Endnotes | 149 |
| Chapter Five: Conclusion | |
| 5.1 Summary of Findings | 152 |
| 5.2 Conclusion | 154 |
| 5.3 Recommendations | 155 |
| 5.4 Contribution to Knowledge | 156 |
| 5.6 Suggestions for Further Studies | 157 |
| Bibliography | 158 |
| Appendix I | 169 |
| Appendix II | 170 |
| Appendix III | 171 |
| Appendix IV | 172 |
| Appendix V | 180 |
| Appendix VI | 188 |
| Appendix VII | 247 |
| Bio-data | 257 |
| The University Compliance Certification | 263 |

List of Tables

| Table | Title | Page |
|--------------|---|-------------|
| 2.1 | Differences between Teaching Strategy and Teaching Methods | 36 |
| 3.1.1 | The Design Matrix of the Study | 97 |
| 3.2.1 | Population of the Study | 98 |
| 3.7.1 | Summary of Field Work Activities | 103 |
| 4.1.1 | Return of Instrument and Response Rates | 107 |
| 4.2.1 | Distribution of Participants Subject, Gender and Groups | 108 |
| 4.2.2 | Distribution of Students' Pre-test Scores by Groups | 109 |
| 4.2.3 | Distribution of Students' Post-test Scores by Groups | 110 |
| 4.2.4 | Gain Scores for the Students in the Groups | 111 |
| 4.2.2.1 | Level of students' Academic Achievement in Financial Accounting | 112 |
| 4.2.3.1a | Descriptive Statistics for Students Achievement in Financial Accounting using Problem solving, Think-pair-share and Lecture Methods | 114 |
| 4.2.3.1b | ANOVA Result Comparing Students' Achievement in Financial Accounting using Problem solving, Think-pair-share and Conventional Lecture Methods | 115 |
| 4.2.3.1c | Teaching Strategies Effect Sizes ^a | 116 |
| 4.2.3.1d | Multiple Comparisons | 116 |

| | | |
|----------|--|-----|
| 4.2.3.2a | Descriptive Statistics | 118 |
| 4.2.3.2b | ANOVA Result Showing Gender Interaction Effects of Think-Pair-Share, Problem-Solving and Lecture Methods on Academic Achievement | 120 |
| 4.2.3.2c | Multiple Comparisons | 121 |
| 4.2.3.3a | Descriptive Statistics for Students' Achievement in Think-Pair-Share and Lecture Methods | 122 |
| 4.2.3.3b | Paired Samples t-test Result Showing Difference Between Think-Pair-Share and Lecture teaching methods | 123 |
| 4.2.3.3c | Think-Pair-Share and Lecture Methods Effect Sizes | 123 |
| 4.2.3.4a | Descriptive Statistics for students Achievement in Problem-solving, and Lecture methods | 124 |
| 4.2.3.4b | Paired Samples t test Result Showing Difference Between Problem-solving and Conventional Lecture Method | 125 |
| 4.2.3.4c | Problem solving and Lecture Methods Effect Sizes | 126 |
| 4.2.3.5a | Descriptive Statistics for Students Pre-Test and Post-Test Scores | 127 |
| 4.2.3.5b | Paired Samples t test Result Showing Difference Between Pre-Test and Post-Test Scores | 127 |
| 4.2.3.5c | Pre-test and Post-Test Effect Sizes | 128 |
| 4.2.4 | Summary of Results | 129 |

List of Figures

| Figure | Title | Page |
|---------------|---------------------|-------------|
| 2.1 | Conceptual Model | 84 |
| 4.1 | Plot of the Results | 119 |

Lead City University Ibadan DO NOT COPY

List of Acronyms

Abbreviation

Meaning

ANOVA

Analysis of Variance

M. V.

Moderating Variable

NUC

National Universities Commission

TPS

Think-Pair-Share

Lead City University Ibadan DO NOT COPY

Chapter One

Introduction

1.1 Background to the Study

Sustainable changes are very important as this twenty-first century is tagged a century that revolves around continuous rapid changes. Therefore, education is an important vehicle that can bring about this sustainable change and development to any nation that desires growth. Effective educational system is measured based on the quality of its outputs and quality educational output is assessed based on the level of students' academic achievement in individual subjects and their aggregate academic performance. Thus, academic achievement refers to those outcomes that indicate the extent of an individual accomplishment of specific or targeted goals which are the main focus of activities in any educational institution¹. It is the outcome of any administered test to students who partake in an instructional process². It is one of the most complex psychological and educational concepts and this is because it involves so many different factors and processes which include: scholastic, personal, social and economic factors³. It provides the opportunity to reveal the abilities of learners and develop their talents and ambitions³.

As Nigeria is aiming towards becoming a self-reliant and independent nation both technologically and economically, there is need to produce more research based findings in the area of teaching and learning of Financial Accounting in universities in order to produce graduates that are financially knowledgeable⁴. The in-depth knowledge of Financial Accounting is a *sine qua non* in every human endeavour as this deal with the recording of all incomes and expenditures which are very important in any organisation that desires to be a going-concern entity⁵. Everyone needs the right knowledge of Financial Accounting irrespective of their social class in order to meet every day-to-day activities⁵. Therefore, the need for improvement in

academic achievement of Business Education students especially in the teaching and learning of Financial Accounting cannot be over emphasised.

Financial Accounting is an important aspect of Business Education curriculum at the post-secondary level of education. It is a key subject taught in all Universities in Nigeria offering Business Education as an academic programme as stated in the national minimum standard by the National Universities Commission (NUC). The introduction of Financial Accounting into the curriculum of Business Education students in University is to equip students with analytical, vocational and critical skills that will make them marketable, gainful employed and advancement in their chosen accounting career and profession⁶.

Financial Accounting can thus be define as the process of collecting, recording, preparing and reporting financial information about an organisation to users of financial information for the purpose of making informed and reformed decisions. It is a subject that is systematic and procedural; therefore, it cannot be mastered by merely memorising the basic rules governing it. Financial Accounting requires intensive practice in its application and sound theoretical knowledge. However, the use of traditional method of teaching has dominated the teaching of Financial Accounting in Nigerian classroom⁵.

Financial Accounting as a course in Business Education is taught at tertiary levels in private and public tertiary institutions in Nigeria for the purpose of acquiring job skills, employment opportunities and to be self-sufficient and self-reliance. Introduction to Financial Accounting which are the elementary aspects are taught at lower level while at higher levels Advance Financial Accounting, Management Accounting and other advance Accounting courses are offered by Business Education students in accounting option. It is noteworthy that Business Education graduates contribute to the economic growth of the nation thus, they play a very

important role in the economy; hence the need for proper training cannot be overemphasised in order for them to face emerging challenges in the profession with confidence and discharge their duties effectively⁷.

The aim of Business Education in Nigerian Universities as spelt out by NUC is to produce certified and well skilled graduates of Business Education who shall impart vocational aspects of Business Education into the larger part of the nation and also to turn out business educators that shall be engaged in much needed change of vocational development right from primary to post-primary levels, as well as to equip graduates with much needed employable skills that will make the secure better job opportunities⁸. However, when graduates are not adequately trained for their choice profession, they will become redundant and add to the number of unemployment rate in the country.

Teaching is one of the most important functions of a teacher and it involves the process of disseminating information, transmitting knowledge, skills, aptitude, interests, and facts, and passing of instructions. Therefore, universities must be committed to practical training rather than theoretical training and thus training processes should be set up where professional practice is re-examined, where skills and knowledge are integrated into the field of Business Education with right ethical attitudes⁹. It is of utmost important that teachers should always try to encourage students to develop analytical and critical thinking skills and various heterogeneous competencies such as teamwork, effective communication and leadership and also understand the knowledge of the subject being taught⁹. These competences are being developed and promoted through the effective and appropriate usage of active, methodologies¹⁰.

Effective teaching and learning processes are important condition for students to efficiently quickly master and learn new concepts and thus developing high-level technical and critical

thinking skills in order to meet learning needs and thereby providing relevant outcomes to meet the demands of the continuous changing society¹¹. Thus, exposure to modern instructional methods and strategies with appropriate instructional media or materials will enhance the effective transmission and retention of new concepts which will develop in students, high-level technical and critical thinking skills¹². Teaching is an activity that comprises a set of planned programmes and actions that are directed towards instilling learning through the deliberate and conscious efforts of an educator. A teacher is someone who deliberately and consciously uses his or her knowledge, competencies, skills, exposures, interest, experience, knowledge of subject matter and attitudes and to ease students learning. Effective learning activities are the product of teaching, resulting in knowledge acquisition, and ultimately yielding positive learning outcomes⁷. Majorly, the passive form of teaching has been fondly adopted by teachers for instance, the teacher-centred method that are majorly based on the ability of students to remember facts while on the contrary, engaging students actively in the process of teaching is the core process and goal in the teaching and learning process¹³. Teachers are expected to have a high level of understanding of the subject matter, competency as well as numerous teaching or instructional tactics when teaching Financial Accounting as this will improve effective teaching, resulting in improved student knowledge of the subject in secondary schools¹⁴. A teacher may have vast years' of experience, but lacks pedagogical knowledge thereby repeating the same thing without been creative and innovative while teaching. Thus, teachers need to constantly strive to improve themselves in order to impart intellectually and innovative challenging education. A child that is not properly and adequately educated, will have an adverse effect on the nation's growth and development and goal attainment set for the natives. For adequate goal attainment, Business Education curriculum should be planned

properly and implemented for desired goals accomplishment. For a curriculum to be properly planned, designed and implemented, appropriate instructional strategies, methods, approaches, tools, learners' attitude and interest towards the teaching and learning of such subjects must be effectively and adequately considered¹⁵. Hence, greater importance on the techniques, methods and strategies of teaching that can motivate the learner and bring desired learning outcomes should be considered and adopted.

Academic achievement of Business Education students in Accounting as a course in Nigeria and specifically in public universities in South West is affected by so many factors. One of these factors is the teaching methods used by lecturers in teaching Financial Accounting. These factors include but are not limited to: age, cultural background, family background, school environment, learner's ability, teacher's experience, quality of education, teacher knowledge of subject matter, and instructional methods. The teaching method adopted to impart effective and qualitative education to the learner serve as a tool for effective change in learner behaviour. A method is a particular way of doing something, while a methodology is a set of methods and principles used to carry out a particular activity. Teaching involves imparting knowledge to a learner about how to do something in school or any recognised programme¹⁵.

Teaching method means the method of imparting facts, information, skills and knowledge by a teacher or instructor to a learner so that students engage in meaningful actions to acquire knowledge for the purpose of achieving objectives of the instructional process⁷. An instructional method is a professional technique that teachers regularly adopt during instructional exercises in order to impart relevant skills and knowledge to students⁷. It includes the techniques, methods and principles adopted by teacher in teaching the learners for desired learning outcomes in students¹⁵. There is therefore need for teachers to be well exposed on the effective instructional methods that are more student-centred than teacher-centred in order to address the problem of frequent adoption of traditional teaching style that mostly result into a negative attitudes and poor achievement of students in Financial Accounting. For students to effectively master the learning material, student-centred teaching and learning methods should be adopted, as this method

will lead to student active participation in the teaching and learning process thereby promoting an attitude that is positive towards the course¹⁶. Teachers should therefore adopt a teaching strategy that will make learning more of student-centred to encourage students develop creative, critical and imaginative skills, which will lead to better accomplishment of educational goals to improve results of academic activities¹⁶. Therefore, the use of different teaching strategies in the classroom cannot be overemphasized. Since learners learn differently as there are diverse learning styles, instructors are expected to make use of different teaching techniques that will stimulate learners' interest and motivation¹⁷.

Generally, there are several types of teaching methods that could be adopted in the classroom and these are broadly grouped into two that is the teacher-centred method and the student-centred method. Teacher-centred methods are lecture method and demonstration method, while learner-centred methods include: dramatization, play-through, role-playing, gamification, discussion, collaborative, cooperative, interactive, problem-solving, Socratic simulation, problem-based, directed-learning methods discovery and case studies⁷. Using different strategies in the classroom promotes effective communication between students, which can make the classroom more meaningful and fun¹⁸. However, most teachers adopt the conventional method of teaching which is a verbal presentation of principles, facts, ideas and knowledge to students. Lecture method, often known as the traditional method or the conventional method, is the oldest and probably the most widespread teaching approach. For years, educators used the lecture technique to teach Financial Accounting, but with little or no activities that made it difficult for students to understand the topic⁷.

Conventional method is a teaching style that allows teachers to present a multiple and different instructional contents to students in a large class with little or no interaction between the teacher and the students⁷. The traditional method of teaching may not be the best teaching method to improve student performance psychomotor-related subjects because this method reduces learners' active participation in the pedagogical process. Most teachers usually feel that all that is necessary for teaching is knowledge of the subject matter. But teaching is more than just knowledge of the subject matter. It is more than mere

standing in front of a class to discuss ideas, recite notes, perform experiments, demonstrate principles or transmit information to students which is mostly common in a conventional way of teaching¹⁹. Lecture teaching approach does not lead to the highest performances in specific types of learning such as motor skills, cooperative group thinking and speaking skills¹⁴.

The hallmark for full student participation in the instructional process is the adoption of student-centred methods, which may play a significant role in raising Business Education students' achievement in accounting. The degree of students' understanding in the course and the efficiency of financial accounting instructors in imparting accounting knowledge ought to be directly correlated. Business educators should always employ a suitable teaching strategy that will support students' knowledge and skill development in order to effectively teach Financial Accounting²⁰.

A student centred method is the cooperative teaching strategy which is a technique for teaching that groups students into smaller group to work together to minimise one-on-one teaching time and maximise others' learning and improve rapid understanding of the material²⁰. More specifically, this teaching strategy organises learners into smaller groups for the purpose of assisting each other learn the assigned material. Cooperative learning is structured to increase student participation, facilitate student leadership and group decision-making experiences, and provide opportunities for students to interact and learn together with students from diverse backgrounds²⁰. The implementation of an interactive teaching strategy such as cooperative teaching technique is designed specifically to focus on students' specific abilities and skills which help to improve students, academic achievement¹⁷. One of the benefits of collaborating and sharing knowledge with peer is having a second opinion or view about a particular problem, thus developing in students the ability to appreciate the view and perspectives of others about issues²¹.

This teaching method gives room to students of different abilities to work collectively in pairs or small groups in order to accomplish desired collective goal. It uses various learning activities to improve

students' understanding of a topic and ensures that each student contributes and learns, builds interpersonal skills and promotes positive interdependence ²⁰. It is very important to establish a collaborative learning environment that gives room to participants to fully engage in shared learning. This learning environment helps to create a better understanding of the knowledge and the transmission of such knowledge to other people²¹. In a cooperative learning environment, students are encouraged to eschew any form of personal fear or embarrassment and this makes them learn better through the support of their peers by sharing efforts, goals and tasks. In order to accomplish the desired result, the involvement of all members of the group is very important as learning becomes quicker and existing if teaching and learning are delivered in a way that students understand²⁰.

Learning can only be effective under cooperative learning method when students participate actively through sharing of ideas and collaborating while completing academic tasks. In this type of method, each group member is responsible for their learning and also for assisting other group members learn, thereby creating an avenue for collective goal accomplishment. Students are expected to work together until all group members have successfully completed the task⁸. However, one of the cooperative learning models that this study considers is the Think-Pair-Share (TPS) cooperative learning model. Cooperative learning strategy has several models in which Think-Pair-Share is one of the models. And as such, teachers have at their disposal numerous teaching strategies that they can use for an effective teaching and learning process, thereby promoting lifelong learning. Since full involvement of students in the teaching and learning process is required in to the acquisition of Financial Accounting skills the adoption of traditional teaching methods is considered insufficient. Therefore, students need several learning experiences, such as the Think-Pair Share educational strategy²².

Think-Pair-Share teaching technique is a strategy that ensures that students are fully engaged in class instruction. It gives every student an avenue to share ideas and provide answers to questions asked by the teacher. TPS is a cooperative learning technique that is divided into four parts: questioning time by the teacher, time to think by the students, time for pair sharing, and time for pair sharing with of answers with

the larger class²⁰. Think-pair-share (TPS) promotes collaborative learning and active involvement of students in the learning process and also develops problem-solving and critical thinking skills ²³. While problem-solving teaching method is a teaching technique that enhances the ability of learners to know what to do when faced with a difficult situation. Problem –solving method is an investigation process where the solution is not obvious to the investigator at the initial stage²⁴. The relevant concepts is that the students' cognitive structure must be adequate before the students will be able to effectively solve the given task or problem²⁴. Problem-solving as a teaching method means teaching students how to solve problems in a logical step from the problem state to its solution⁴. Problem-solving skill helps to better understand scientific and mathematical concept in which Financial Accounting is one of these categories. It is an excellent tool for encouraging the learning process and also plays an important role in the development of regulatory and transformational skills²⁵. These skills are: observing problems, asking questions, hypothesising, playing and investigating, analysing and interpreting data, communicating results²⁵.

The conventional method of teaching is majorly a lecture way of teaching as the centre of teaching with an emphasis on program and concept delivery²⁵. In the lecture-based teaching method, the student listens and takes notes, passively receiving and receiving undifferentiated and identical knowledge from the teacher²⁶. However, in the problem-solving teaching method, the content of the course and its implementation are considered the most important, and students acquire knowledge through exercises and practice²⁵. During this process, student learns new concepts and skills. The teacher's role is very important at the start of every activity, as the activities are created based on situations at hand and according to the programme and the subject. However, teacher does not have main role but to guide students in difficulties and give them the opportunity to manage most of the time by themselves²⁷. Thus, the problem-solving method promotes group discussion and teamwork²⁸. Moreover, the teacher plays the role of a facilitator in this teaching and learning approach rather than a teacher²⁵.

There are several factors that influence students' academic achievement. These factors include age, social economic status of the students' parents or guardians, gender, teaching faculty, students' school environment, the residential area of the students, the trend of tuition, the medium of instruction in schools, students study habit, and whether they are housed in hostels or as day scholars²⁹. However, this study focused majorly on one of these factors that is, instructional methods. In teaching Financial Accounting, several teaching methods were used, including: lecture, demonstration, discussion, dramatization, survey, field experiment, problem solving methods. Despite all the methods mentioned above, it is a constant struggle to find better teaching methods in which learning can have a better effect on students, and therefore there is a need to incorporate modern teaching strategies such as the cooperative method and the problem-solving method into the teaching of Financial Accounting. Based on these facts, the present research was conducted to determine the effects of think-pair-share and problem-solving teaching methods on academic achievement in Financial Accounting among of Business Education students in public universities in Southwest, Nigeria.

1.2 Statement of the Problem

The major problem in this study is the worrisome academic achievement of Business Education students in Financial Accounting in Nigerian Universities and specifically, in public universities in Southwest, Nigeria. The teaching and study of Financial Accounting as a course in universities is of great interest as the general low academic achievement of Business Education students in this course in public universities in Nigeria and specifically in the Southwest is becoming alarming. This is because most Business Education students do not find this course very interesting due to its calculative nature and hence it affects their performance in the course. The researcher interrogated some lecturers and students directly involved in this study and the outcome shows that the reasons for low achievement in Financial Accounting

include: the nature of the course and its components of calculation, the methods adopted by the lecturer in teaching the subject and students' lack of seriousness and interest in the subject. A student's academic achievement in Financial Accounting is greatly linked to the teaching methodology adopted by Business Education lecturers, although some other factors such as students' interest and ability has also proven to affect student achievement in Financial Accounting however, the teaching methodology is a major factor.

So many studies have been carried out on teaching methods and students' academic achievement; however, there is a dearth of literature on the effects of think-pair-share on problem-solving teaching methods on Business Education students' academic achievement in Financial Accounting in public universities in Southwest, Nigeria. This study was conducted to fill this gap and also identified relevant methods of teaching Financial Accounting at university level.

1.3 Aim and Objectives of the Study

This study investigated the effects of think-pair-share and problem-solving teaching methods on academic achievement in Financial Accounting among of Business Education students in public universities in Southwest, Nigeria. The specific objectives therefore are to:

- i. determine the level of Business Education students academic achievement in Financial Accounting in Public Universities, Southwest, Nigeria;
- ii. examine the combined effect of Think-Pair-Share teaching method, Problem-Solving and lecture teaching methods on Business Education students academic achievement in Financial Accounting in Public Universities, Southwest, Nigeria;

- iii. examine the interaction effect of Think-Pair-Share, Problem-Solving teaching method, Lecture method and gender on Business Education students' academic achievement in Financial Accounting in Public Universities, Southwest, Nigeria;
- iv. examine the difference between the academic achievement of Business Education students in Financial Accounting taught using Think-Pair-Share and Lecture teaching methods in Public Universities, Southwest, Nigeria;
- v. examine the difference between the academic achievement of Business Education students in Financial Accounting taught using Problem-Solving and Lecture teaching methods in Financial Accounting in Public Universities, Southwest, Nigeria; and
- vi. determine the difference between the pre-test and post-test achievement mean scores of students in Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture methods in Public Universities in Southwest, Nigeria.

1.4 Research Question

The following research question was answered in the study:

- i. What is the level of Business Education students' academic achievement in Financial Accounting in Public Universities, Southwest, Nigeria?

1.5 Hypotheses

The following hypotheses were formulated for the study and tested at 0.05 level of significance:

- H₀₁:** There will be no significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching method on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria;
- H₀₂:** There is will be no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria;
- H₀₃:** There will be no significant difference between the academic achievement of Business Education students in Financial Accounting taught using the Think Pair-Share method and those taught using the Lecture method in Public Universities in Southwest Nigeria;
- H₀₄:** There will be no significant difference between the academic achievement of Business Education students in Financial Accounting taught using Problem-Solving method and those taught using Lecture methods in Public Universities in Southwest, Nigeria; and
- H₀₅:** There will be no significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture method in public Universities in Southwest, Nigeria.

1.6 Significance of the Study

The result of this research work when published should be of great benefit to Business Educators, students, parents, school administrators, curriculum planners and other researchers.

Business Educators would be provided with useful information on the importance of using an effective methodology to ensure students achieve well in Financial Accounting at universities. Business Education lecturers will be educated on the importance of adopting think-pair-share teaching methods and problem solving in the teaching and learning process, especially in Financial Accounting.

The findings of this study would help Business Education students with information processing, develop communication skills, improve their thinking, increase the sense of participation in the learning process and involve the participation of the largest number of students in the class. Business Education students would also realize the benefits of teamwork through collective thinking and collaboration, which would help them, become creative, critical thinkers and problem solvers, thereby reducing the high rate of low academic achievement in Financial Accounting in tertiary institutions in Nigeria and specifically in public universities in Southwest.

Parents would also benefit from the results of this study as the academic performance of their children or wards is a high priority for them. Based on this fact, they would become aware of the various methods that a lecturer can and should use in teaching Financial Accounting that would help their children or wards to improve their academic results and thus better educational outcomes.

This study would also be of great benefit to university administrators and management as they would be well aware of the effectiveness of using think-pair-share and problem-solving instructional methods in teaching Financial Accounting topics and would therefore enlighten them on the importance of regular in-service training and workshops for lecturers to improve their teaching methods, thereby leading to effective learning outcomes and quality educational outcomes.

This study will also be of great benefits to curriculum planners as the findings of this study can be used in Business Education curriculum planning, designing and implementation stages and also serve as a design guidelines for teachers to implement think-pair-share cooperative learning and problem-solving teaching methods to improve the general learning outcomes of their students. It will help them understand the principles, practices and processes involved in adopting any of these teaching methods for better and quality learning outcomes. The researcher hoped that active learning would receive more attention and be more popular among students. In general, this study will be considered as a reference source for future researchers in related fields.

1.7 Scope of the Study

This study explored the effects of think-pair-share and problem-solving teaching methods on academic achievement in Financial Accounting among Business Education students in public universities, Southwest, Nigeria. The scope of the study is delimited geographically and conceptually. Geographically, the study covered all the 12 public universities in Southwest Nigeria offering Business Education as a degree programme; however, four newly upgraded universities from College of Education were excluded from the study this is because as at the time of carrying out this study, there were no 200 level Business Education students. The researcher's interest was on 200 level Business Education students. This is because the students had offered the first-year Accounting Fundamentals courses in the first and second semesters of 100 Level under the Benchmark Minimum Academic Standards (BMAS) and are aware of the basics of Financial Accounting. This study was carried out before the implementation of the Core Curriculum Minimum Academic Standards (CCMAS). The study covered the second semester content of Financial Accounting II and the topic that was explored was Partnership Accounts as it is one of the topics in the content of Financial Accounting II as listed in the National Universities Commission (NUC) minimum standard. This study was conceptually delimited to the Think-Pair-Share-model of cooperative learning teaching method, the problem-solving teaching method for the experimental groups, and the lecture method as the control group.

1.8 Limitation of the Study

The major constraint encountered by the researcher was on the achievement test as most of the students were reluctant in participating in the test and this was as a result of students' phobia for examination. However, the researcher was able to convince the participants that the test was strictly for research purpose and a large number of them participate effectively.

1.9 Operational Definitions of Terms

The following terms are operationally defined as used in the study:

Academic Achievement: It is the result of what students have learned after completing the Financial Accounting study materials and measured by the total number of marks in the test prepared for this purpose. It is a test score of Business Education students in Financial Accounting.

Financial Accounting: this is a course taken by Business Education students in university that is concerned with the process of collecting, recording, organising and presenting financial information and make it available to users in order to make informed decision.

Teaching Methods: these are manners and ways in which facts, skills, knowledge and information are been disseminated to students by teachers in achieving educational objectives most especially in Financial Accounting.

Conventional Method: This is a general method of teaching Financial Accounting to Business Education students where the lecturer provides direct instruction to the students through lectures and presentations. The responsibility for learning and the learning flow of information and knowledge is directed by the Business Education lecturer.

Cooperative Learning: this is a teaching method that allows Business Education students to learn in small groups through collective interaction for the purpose of achieving effective learning outcomes in Financial Accounting.

Think-Pair-Share: This is a cooperative learning strategy model, which is a process where Business Education students first think of a solution to a Financial Accounting problem individual, then he/she pair-shares that solution with a partner before sharing with a larger group or the whole class.

Problem Solving Teaching Method: This method of teaching allows Business Education students to engage freely in the learning environment and this enables them to understand Financial Accounting by solving each problem or topics by themselves.

Endnotes

1. J. O. Enwere & C. L. Ikeanyionwu, *Relative effectiveness of just-in-time teaching and peer instructional strategies on students' achievement in financial accounting in colleges of education*, **Nnadiesube Journal of Education in Africa (NJEA)**, 7 (1), 2022, 9-17 <https://acjol.org/index.php/njea/article/download/2905/2880>
2. J. P. Leonardi, Using reciprocal teaching method to improve female students' reading comprehension achievement at SMA Negeri Tujuh Prabumulih, **Holistics Journal**, 13(1), 2021, 57-97.
3. A. H. Al-Bayati & A. J. Mizban, *The effectiveness of brainstorming in the achievement of fourth-grade students in science*, **Journal of Positive School Psychology**, 6 (5), 2022, 1506 – 1520. <http://journalppw.com>
4. O. O. Boris, *Effects of problem-solving teaching strategy on secondary school students' academic performance in chemistry in Ondo State, Nigeria*, **International Journal of Research and Analytical Reviews**, 7 (2) 2020,74-80 <http://ijrar.com/>
5. J. O. Enwere; C. L. Ikeanyiownu & P. C. Goddy-Mkpa, *Effect of flipped classroom teaching on the achievement of male and female financial accounting students in secondary schools*, **Unizik Journal Nnadiesube Journal of Education in Africa (NJEA)**, 7 (1), 2022 , 210-221 <https://unijerps.org/>
6. Federal Republic of Nigeria, *National policy on education*, NERDC, 6th edition. 2013
7. S. David, *Effects of guided-discovery and problem-solving teaching methods on students' academic performance in financial fccounting in colleges of education, North Central, Nigeria*, A PhD Thesis Submitted to Department of Business and Entrepreneurship Education, College of Education, Kwara State Univeresity, Maletе, December, 2019, Available online <https://www.researchgate.net/publication/364024967>
8. N. A. Ishola, S. A. Gatta & B. M. A. Mohammed-Oladunni, *Effects of cooperative and problem-solving methods on students' academic performance in financial accounting in selected secondary schools in Lagos State*, **Nigerian Online Journal of Educational**

9. E. Cano-García & Ó. Rojas-Cazaluade, *Increase in academic performance due to the application of cooperative learning strategies: A case in construction engineering*, **Journal of Technology and Science Education** 12(3), 2022, 578-595
10. K. A. Leiva-Reyes, A. E. Gutiérrez-Jiménez, C. P. Vásquez-Rojas, S. E. Chávez-Lezama & E. Reynosa-Navarro, *Aprendizaje colaborativo en línea y aprendizaje autónomo en la educación a distance*, **Revista Científica, Cultura, Comunicación y Desarrollo**, 5(3), 2020, 95-100.
11. H. A. Ajimotokan, R. M. Ambali, A. B. Rabi, T. S. Ogedengbe, H. K. Ibrahim & M. O. Yusuf, *Development and evaluation of an interactive instructional package for teaching engineering graphics skills*, **FUOYE Journal of Engineering and Technology**, 7(2), 2022, 40-43
12. J. M. Costa, G. L. Miranda & M. Melo, *Four-component instructional design (4C/ID) model: a meta-analysis on use and effect*, **Learning Environ Res** 25, 2022, 445-463. <https://doi.org/10.1007/s10984-021-09373-y>
13. W. A. Amaewhule & T. I. Yellowe, *Instructional innovations adopted by accounting teachers for improved learning among secondary school students in Rivers State*, **International Journal of Innovative Education Research**, 9(4), 2021, 12-20. www.seahipaj.org
14. H. O. Obasi, *Effect of cooperative learning strategy on students' academic achievement in economics in public secondary schools in Imo State*, **South Eastern Journal of Research and Sustainable Development**, 7 (2), 2021, 11-24
15. A. T. Ogunleye, O. Onifade, A. J. Obadipe & M. Hamidu, *Effect of think pair share and group investigation cooperative learning strategies on students' performance in biology in Ekiti State Nigeria*, **AJSTME**, 7 (1), 2021, 60-66, <https://www.ajstme.com.ng>
16. T. F. Silalahi & A. F. Hutauruk, *The application of cooperative learning model during online learning in the pandemic period*, **Budapest International Research and Critics Institute-Journal (BIRCI-Journal)**, 3 (3), 2020, 1683-1691
17. F. Gulna, *"Fostering Saudi EFL learners' communicative, collaborative and critical thinking skills through the technique of in-class debate."* **International Journal of English Linguistics** 10 (5), 2020, 265-283
18. R. C. Samosa, *Cooperative learning approach as innovation to improve students' academic achievement and attitude in teaching biology* **Journal of World Englishes and Educational Practices (JWEEP)** 3 (1), 2021, 1-10
19. J. J. Cooper & K. Ozansoy, *The impacts of strategies in teaching on students' performance in school*, **Near East University Journal of Education Faculty (NEUJE)**, 5 (2), 2022, 12-18
20. L. F. Ademiluyi & A. A. Fawale, *Effect of think-pair-share technique on academic performance of office practice students in colleges of education Kwara State*, **Journal of Education in Black Sea Region**, 8 (1), 2022, 7-1 <https://kwasuspace.kwasu.edu.ng/bitstreams/86ba02b5-17f7-4289-9aff-7c5c367459bb/download>

21. L. Lorenzetti, M. Jacobsen, D. Lorenzetti L., L. Nowell, H. Pethrick, T. Clancy, G. Freeman & O. E. Paolucci, *Fostering learning and reciprocity in interdisciplinary research*, **Small Group Research**, 53 (5), 2022, 755-777. <https://doi.org/10.1177/10464964221089836>.
22. A. U. Okeke & H. Alichu, *Effect of cooperative learning strategy on students' academic achievement and interest in financial accounting in Abia State*, **NAU Journal of Technology & Vocational Education**, 7 (1), 2022, 57-65, <http://www.naujtved.com.ng/>
23. S. Ganatra, T. Doblanko, K. Rasmussen, J. Green, M. Kebbe, M. Amin, A. Perez, *Perceived effectiveness and applicability of think-pair-share including storytelling (tps-s) to enhance clinical learning*, **Teach Learn Med.** 33 (2), 2021, 184-195,. doi: 10.1080/10401334.2020.1811094.
24. C. F. Okafor & C. C. Nzomiwu, *Effect of think-pair-share instructional strategy on secondary school students' academic achievement in algebra*, **COOU Journal of Science Education and Allied Discipline**, 3 (1), 2021, 146 – 156; <http://www.josead.com/index.php/JOSEAD/article/view/15/15>
25. A. O. Awodun, *Effects of problem-solving teaching strategy on secondary school students' academic achievement in physics*, **European Modern Studies Journal**, 4 (4), 2020, 55-64
26. G. Ezeddine, N. Souissi, L. Masmoudi, K. Trabelsi, L. Puce, C. C.T. Clark, N. L. Bragazzi & M. Mrayah, *The problem-solving method: efficacy for learning and motivation in the field of physical education*, **Front. Psychol.** 13, 2023, 1-10
27. R. Sari, T. Supatminingsih, M. Hasan, R. Rahmatullah, *The effect of numbered heads together (nht) cooperative learning model and learning interest on student learning outcomes*, **Jurnal Eduscience (JES)**, 10 (1), 2023, 87-103 https://www.researchgate.net/publication/373717168_the_effect_of_numbered_heads_together_nht_cooperative_learning_model_and_learning_interest_on_student_learning_outcomes [accessed may 24 2024].
28. T. Lim, *Problem-based learning: benefits, challenges, and the way forward*, Cambodia K. Heng, K. Sol, S. Kaing, & S. Em (Eds.), *Innovations and challenges in Cambodian education: Youth's*, Cambodian Education Forum Phnom Penh, 2023, 21-36, <https://cefcambodia.com/books/>
29. W. Hong, B. Shan, L. Yuanzhi & Ts. Chunhua, *The academic performance and upward mobility of students in education program*, **Journal of World Englishes and Educational Practices**, 6 (1), 2024, 137-166 Journal Homepage: www.al-kindipublisher.com/index.php/jweep

Chapter Two

Literature Review

This chapter reviews all relevant literature related to this study. Both published and unpublished works were consulted in which the views and opinions of various authors and their experiences were discussed in form of theoretical, conceptual and empirical studies. Lastly, the summary of gaps in literature was discussed. This chapter is discussed under the following headings:

2.1 Conceptual Review

2.1.1 Education

2.1.2 Business Education

2.1.3 Financial Accounting

2.1.4 Learning

2.1.5 Teaching and Instructional Strategy

2.1.6 Teaching Methods

2.1.7 Cooperative Learning

2.1.8 Think-Pair-Share

2.1.9 Problem-Solving Teaching Method

2.1.10 Student's Academic Achievement

2.1.11 Teaching Methods and Financial Accounting

2.1.12 Cooperative Learning and Students' Academic Achievement in Financial Accounting

2.1.13 Think-Pair-Share and Students' Academic Achievement in Financial Accounting

2.1.14 Problem-Solving Method and Students' Academic Achievement in Financial Accounting

2.1.15 Gender and Students' Academic Achievement in Financial Accounting

2.2 Theoretical Framework

2.2.1 Walberg Theory of Educational Productivity

2.2.2 Social Interdependence Theory

2.2.3 Gestalt Theory of Problem-Solving

2.3 Review of Empirical Studies

2.4 Conceptual Model

2.5 Summary of Gaps in Literature Reviewed

2.1 Conceptual Review

2.1.1 Education

Education has been an excellent tool to truly achieve progress and development in a nation as evidenced by the advanced nations of the world. Education is the process of acquiring knowledge through study or imparting knowledge through instruction or other practical procedure. Education is also about helping people learn to do things and encouraging them to think about what they are learning. Through education, knowledge of the society, the country and the world is passed from generation to generation. It is about passing on knowledge from an older generation to a younger generation. Education helps and guides an individual to transform from one class to another. Education is an important key for the development of any society. It is a tool that society can use to solve its problems and ensure sustainable development. Through education, a culture of productivity is fostered by enabling individuals to discover and unlock

their latent creative potentials and apply them to improve the effectiveness of their personal and societal endeavours. Education teaches citizens good values that make them good and useful citizens in society. These values include; honesty, selflessness, dedication, patriotism, national integrity and hard work¹

Education is therefore the process of training and knowledge acquisition in every aspect of human life for the purpose of becoming independent and self-sufficient in order to contribute to the economy development of the society. There are several forms of education which are all interwoven for the purpose of enhancing the development of human capital for national development, and they are formal education, non-formal education and non-formal education².

The quality of human life is improved by quality education, because it is a tool that helps social progress. Education is a mechanism that is used in reducing the existing differences between upper and lower class in society. Education is a social institution through which members of society are made aware of important knowledge such as work skills, values, basic facts and cultural norms. The most crucial benefits of education include the fact that education enhances personal lives and allows society to function properly. It therefore acts as an instrument which equips individuals with information, knowledge, skills and technology by which they come to know about their rights and responsibilities towards family, society, and nation².

2.1.2 Business Education

Business Education is a branch of vocational technical education that starts from junior high school level to tertiary institution level with the aim of exposing students to various Business Education skills in preparation for the work environment or life after school³. The main focus of Business Education is career development that will enable students to acquire the relevant skills that will make them self-sufficient and also enable them to compete successfully in the rapidly growing business world. Business Education refers to the study of courses that are technology-related and the acquisition of functional and practical skills required to function efficiently and effectively as employees or employers of labour⁴.

The most important aspect of career development in business is the acquisition of skills, which is part of the Business Education programme⁵. Business Education is an aspect of the national universities core curriculum that prepares students for an effective career in teaching and in business. It is the education needed for people to manage personal affairs, learn business and to be good citizens of society⁶. Business Education is a broad and comprehensive field of study, the educational program of which is equipped with the ability to provide knowledge, skills, occupations and abilities needed for effective management of personal businesses and at the same time for functioning in the economic system⁷.

The Business Education programme is fundamentally designed to prepare graduates to be self-reliant, competent, skilled, technically proficient and knowledgeable in order to function effectively and efficiently in the workplace. Enterprise learning is about facilitating learning about work-related behaviour to improve individual and company performance⁸. Business Education is a combination of pedagogical and entrepreneurial training⁶.

Business Education curriculum is an educational process about opportunities for student engagement in education in fields related to business and education, such as educational management and administration and Business Education⁸. Business Education is one of the professional education programmes that aim to equip students with the right knowledge and skills that are required to effectively function in their chosen profession in the world of work⁹. Business Education is aimed at equipping students with the knowledge and skills required to become entrepreneurs, to prepare students for specific careers in office professions; expose students to knowledge of business and computing¹⁰. Business Education as an educational programme is embedded with the right content that can help shape students' ability to graduate with exploratory and coping skills¹¹.

The goal of an effective Business Education program is to produce a qualified workforce, the production of business teachers (Business Educators) and the production of entrepreneurs (owners and managers) and the production of entrepreneurs (owners and managers) of their own business. The objectives of Business Education are as follows⁶:

- i. to aid in the development of students' understanding about numerous professions and occupations that are available in the commercial world
- ii. to assist in the development of students' understanding of the true function of our economic system in a practical way
- iii. to provide opportunities for all students to learn and explore about the business world
- iv. to prepare students to enter and pursue entrepreneurship as a career
- v. to assist students in making the right choice among goods and services that businesses offer
- vi. to prepare students to be business teachers
- vii. to build students' entrepreneurial mind-set and engage in same
- viii. to acquire business knowledge and skills that are required self-use
- ix. to get students ready for more effective studies in the field of business

Business Education is an essential part of preparing youth for life and living. Business Education is a course that is offered at the high educational level; it is a programme that consists of two parts¹²

- i. **General Business Education** – it makes available to students competencies and information that are required to manage their personal business and use the services of a business, and
- ii. **Office Education** - This is a professional office career program through initial refresher and upgrade education.

Entrepreneurship education prepares recipients for gainful employment and sustainable livelihoods.

Business Education deals with the study of the subject of related disciplines. It combines two disciplines that deals majorly with the art of typewriting, business mathematics, shorthand writing, accounting, secretarial duties, office practice and commerce¹³. It develops in individuals the right understanding, skills and abilities of the vocational opportunities available¹³.

2.1.3 Financial Accounting

Financial Accounting is a subject offered in colleges and universities with the intention of training students with the basic concepts and principles of practicing accounting so that it fits into the world of works as it is commonly used in almost all aspects of human activities. . Accounting was considered a

systematic process of identifying, classifying, verifying, recording, measuring, summarizing, interpreting and communicating financial information¹⁴. Financial Accounting is a systematic way of collecting, recording, presenting, analysing/interpreting financial data for users of financial reports¹⁵. Accounting is needed to equip students for the world of work or higher education to become accountants or bookkeepers with the required skills and abilities to solve societal problems¹⁴.

Financial Accounting is collection, recording, organising, preparing, analysing and presenting financial information and making it readily available to users of financial information. The study of financial accounting should not only be in form of practical education, but also should be the combination of both theoretical knowledge and sound practical education¹⁶. It is the branch of accounting that is used to communicate economic information to stakeholder of an organization, such as investors, managers, creditors, employees, the government and shareholders¹⁷. Financial Accounting is the process of recording, organising, reporting and analysing economic events relating to business financial activities¹⁸. Given the importance of Financial Accounting skills and knowledge to business affairs and the Nigeria economy, the offering of this subject at the senior secondary school level is highly commendable¹⁶. Financial Accounting is the art of collecting, recording, interpreting and presenting the financial activities of an organisation in line with established accounting guidelines and is a procedural and systematic subject which cannot master by ordinary memorization of basic rules¹⁸.

Teaching and studying Financial Accounting requires intensive practice in its application and thorough theoretical knowledge. However, the traditional method of teaching still remains the most used method of teaching this subject¹⁹. The Financial Accounting curriculum is designed to provide specialized instruction; provide accounting skills for personal use in the future; prepare students for careers in the accounting fields; to enable the high school student to appreciate the basic fundamental rules and principles in accounting; evaluate students' knowledge of accounting rudiments and how they are applied²⁰. Fundamentals of Financial Accounting guide Financial Accounting students in recording, valuing and evaluating Financial Accounting information¹⁸. Currently, however, there are increased

concerns as to how the existing principles of Financial Accounting are unable to adequately prepare students for a sophisticated and complex business environment¹⁴.

Financial Accounting is one of the accounting courses taught in the Business Education program at the university level of education. To meet the objectives of learning Financial Accounting at any level of education, students must understand the course, acquire the skills necessary for effective job performance, and have good academic results¹⁹. The main objective of teaching accounting at the university is to prepare students who will study accounting and be able to fulfil the duties and obligations of accountants in state and private institutions²¹. Accounting courses such as Fundamentals of Accounting, Financial Accounting I and II, Advanced Financial Accounting, Cost Accounting and Managerial Accounting are offered by Business Education students at the University²¹. These accounting courses, among others offered, help students acquire the analytical, evaluative and quantitative skills, human relations and leadership skills necessary for effective leadership in any organization in which business graduates find themselves²¹. These courses lead to the award of a Bachelor of Science (Education) in Business Education upon completion of the program in accordance with the minimum standards of the National Universities Commission (NUC). Business Education students should therefore acquire accounting skills, abilities, capabilities; skills and expertise through deliberate, systematic and on-going training that are needed to effectively perform accounting functions²¹.

One of the main goals of including Financial Accounting in the Business Education curriculum is to increase students' interest in accounting and the world of business, as today's society relies mainly on improving accountability. Teachers are therefore expected to devise ways to build and encourage Business Education students to develop constructive attitudes towards Financial Accounting and business-related fields¹⁵.

2.1.4 Learning

Learning is a multifaceted activity that results in the acquisition of knowledge, skills, values and attitude. These capabilities are developed through environmental stimuli and cognitive processes²². Therefore,

learning involves the pursuit of intelligence and knowledge²³. Essentially, learning entails integrating new information and abilities with existing ones²³.

Throughout this process, educators consider the necessary information and abilities for students, and strategize to maximize the effectiveness of the planned learning activities²². Active learning is an approach that engages students in active learning experiences.

Since students are encouraged to take part in all learning activities, active learning typically creates a more pleasant environment for them, which maximizes learning outcomes²³. To increase the effectiveness of the teaching and learning process, the instructor will employ a model or style in an active learning process. A learning model is a methodical process or strategy that a teacher uses to accomplish learning goals during the teaching and learning process²³. Students' enjoyment of the lesson can grow with the use of the appropriate learning model, which will boost their motivation to finish assignments and facilitate their understanding of the lesson²³.

Characteristics of Learning Effectiveness

If the intended learning objectives are met in line with predefined indicators, then learning is considered effective. Understanding the qualities of effective learning itself is crucial to knowing how to carry out the learning process with effective results. The following traits are present in effective learning²³:

- i. Students need to be actively mentally and physically prepared in order to learn. The development of intellectual abilities, or the capacity for critical and physical thought, is a sign of mental activity. Examples of this include distilling the main ideas of lessons and conducting exercises.
- ii. Since there are many different approaches to learning, it is simple to capture students' interest.
- iii. Classroom learning motivation from teachers. Students will be more motivated to learn actively if the teacher is more motivated.
- iv. To learn, schools must have a democratic environment that fosters tolerance, respect for one another, understanding of students' needs, respect for others' viewpoints, and the ability for students to learn on their own.
- v. Lessons in school must be connected with real life.

vi. Creating a supportive learning interaction by giving students the freedom to problem solve will lead to students' independent and greater sense of responsibility

vii. Diagnosing and treating learning issues, identifying the underlying causes, and offering remedial instruction as a solution

2.1.5 Teaching and Teaching Strategy

The principal role of the teacher is to transmit instructions, knowledge, facts, skills, interests, and abilities. Teaching is a systematic system of various activities²⁴. Teaching is an important aspect in the pedagogical process, good teaching creates a way of learning and leads to the realization of teaching goals, it is sympathetic, it is cooperative and suggestive, it is a stimulation mechanism that is progressive, democratic, diagnostic and therapeutic in nature and also promotes self-learning, thereby liberating pupil and mind²⁴.

The nature of effective teaching is that it is a complex social process, an art as well as a science. Teaching is a professional activity that can be effectively performed by a qualified teacher and which is the result of the teacher's efforts in the classroom. Teaching is an interactive process dominated by communication skills. Teaching takes different forms and styles and is a specialized task compressing different teaching skills²⁵.

2.1.5.1 Principles of Teaching

There are some general principles of teaching that have emerged from general experience, traditions and new research in the field of education and pedagogy. These principles are explained below:

- i. Principles of Planning: Desired learning objectives can be achieved smoothly and efficiently with proper planning^{26, 27}.
- ii. The Principle of Flexibility and Elasticity: In order for the teacher to effectively deal with the tense situation, the principle of flexibility and elasticity must be followed. That is, teachers are not to be rigid in classroom during the instructional process. There should be avenue for them to adapt to various classroom situations as it arises^{26, 27}.

- iii. The Principle of Using Past Experience: What the teacher teaches should be properly connected with already acquired experience and knowledge^{26, 27}.
- iv. The Principle of Child Orientation: Bringing about desired changes in the child's behaviour is the aim of instruction. Therefore, teaching should be child-centred if these desired changes are to be achieved^{26, 27}.
- v. The Principle of Individual Differences: It is impossible to expect instruction that does not take into account each child's unique needs and abilities to accomplish particular objectives and result in positive behavioural changes in all of the students^{26, 27}.
- vi. The Principle of Connection with Real Life: learning must always be tied to real-world situations and should never be restricted to the confines of the classroom or school^{26, 27}.
- vii. Principle of Effective Teaching Materials and Strategies: For the learning process to be successful, effective teaching materials, resources, and strategies are also needed^{26, 27}.
- viii. The Principle of Correlation with Other Subjects or Topics: this principle states that learning a lot about one subject undoubtedly aids in learning a lot about other subjects. A successful lesson is one in which the various sub-units of a topic are correlated with each other. In addition, lessons must correlate with other subjects. This means that there are inter-relationships between and among various subjects and as such, teachers should be able to assist learners in understanding this fact^{26, 27}.
- ix. The Principle of Active Participation and Involvement: Good teaching should always be two-way the task of teaching should be a joint effort between the teacher and the students²⁶.
- x. Principle of Conducive Environment and Proper Control: The role of conducive and effective management or control of the teaching and learning situation can never be divided in any teaching^{26, 27}.
- xi. The Principle of Certainty of Aims or Objectives: Adhering to the definiteness of aim or objectives principle always improves the personality of good teaching^{26, 27}.
- xii. The Principle of Activity: Teaching is ineffective if students do not actively participate in the lesson. Learning becomes active and faster if the student is physically and mentally active during the instructional process^{26, 27}.

- xiii. Principle of Cognition and Input Behaviour: The main purpose of any act of teaching is to ensure there is a desired change in students' behaviour. To achieve this goal, the teacher must have knowledge of the students' input behaviour^{26, 27}.
- xiv. The Principle of Suggestibility: Good teaching is about suggestibility rather than authority. The teacher acts as a friend and guide, suggesting activities, materials and ways of responding^{26, 27}.
- xv. The principle of democracy: Successful teaching is democratic. The teacher should create a democratic environment in the classroom^{26, 27}.
- xvi. Psychological Principles of Teaching: These are principles that make teaching stimulating and effective by taking into account the child's psychology²⁶.
- xvii. Principle of Motivation or Interests: It is said that half the battle is won if the students are really motivated during the lesson. Motivation is the fuel that powers the mental engine. Motivation not only supports but also facilitates learning. Motivation arouses the child's interest and once he is really interested, he becomes attentive and consequently learning becomes effective. The teacher should therefore motivate students by creating interesting learning situations. Teaching should be connected with activities and the meaning of life²⁷.

Teaching with the appropriate teaching strategy will help to increase learning but when an inappropriate teaching strategies is been adopted, students' academic results decline. However, no teaching method is ineffective in itself, but each subject requires the right and appropriate teaching strategy for effective learning outcome. The methods and approaches teachers employ to impart course material to students are referred to as teaching strategies²⁸. Generally, teaching strategies concentrate on accomplishing the aims and objectives of the lesson. Teachers can assist students in their learning process by utilizing appropriate instructional strategies.

A collection of techniques that aid in the acquisition of new information is referred to as learning strategy; active learning strategies and passive learning strategies are the two general categories into which learning strategies can be separated²⁹. A useful technique for presenting new material to a student is an active learning strategy. While passive strategies serve the same functions as active strategies, they are

employed to teach students on their own through reading or listening as opposed to practice²⁹. Furthermore, teachers may employ a variety of teaching strategies depending on the subject, class size, and students' maturity level. Additionally, the strategies employed in lessons may vary from one another²⁸. Instructional strategies are techniques adopted by teachers that assist students to become self-dependent and strategic³⁰. The method a teacher can employ to accomplish learning objectives is determined by instructional strategies. By identifying the aspects of teaching performance that may need improvement, the teacher can choose instructional strategies that will help them strengthen key areas³⁰.

2.1.6 Teaching Methods

The method of teaching is very important in any teaching and learning process because the method of teaching used by the teacher can either hinder or promote learning. It can help to sharpen the mental activities that underlie social power, or it can discourage curiosity and initiative thereby making survival and self-reliance more difficult. Many teachers have widely applied teacher-centred methods³¹.

For the effective teaching of any subject, the teacher must choose the right teaching methods that will meet the needs of the different categories of students, arouse their interest and enable them to achieve academic excellent. Therefore, in any educational setting, it is imperative that teaching strategies that demand greater student participation in the teaching and learning process be utilized, particularly in vocational subjects¹⁶. Selecting methods that encourage students to think critically and explore are helpful in translating learning objectives into ways of behaving more effectively. These techniques engage students and enable them to draw connections between newly learned material and prior knowledge³². Therefore, activities that support effective learning, allow for the use of advanced cognitive skills, and motivate students to collaborate, share, and participate in discussions should be used to guide the learning process in a constructivist classroom, which is defined as an environment that allows students to construct their own learning in the classroom³².

A teaching method is therefore a plan that sets the approach a teacher intends to use to accomplish the desired educational goals. It includes the ways in which teachers have organised and used teaching tools, curriculum techniques, and teaching aids to meet the learning objectives¹⁴. A teaching method is a

specific approach to teaching something, or the techniques or methods that are employed. Depending on their pedagogical beliefs, teachers may employ a variety of instructional strategies²⁹.

For an effective teaching method, the teaching and learning process should consist of an on-going process of effecting desired changes among students³³. Therefore, the teaching strategies used in the classroom should be the most effective for the subject being taught if teachers want to see the desired positive change in their students. Instructional strategies are mostly effective when they meet the needs of students³⁴.

Positive reinforcement, advance planning, prompts and feedback, supportive classroom environment, higher order questioning and cooperative learning are some of the elements that make up effective teaching³⁵. To attain better results, it is crucial that the teacher has access to all of these teaching resources as they advance through the classroom. In order to achieve this, numerous techniques and approaches have been found and put into practice, which have produced improved and promising outcomes³⁵. The subject taught, the number of students in the class, and the students' learning styles are some of the variables that affect teaching methods. A teacher can employ a variety of instructional strategies in a classroom, depending on what the needs of the students are as the objectives of the instructional methods may also differ in individual courses²⁸.

2.1.6.1 Types of Teaching Methods

Teaching methods are management principles and guidelines used in the classroom²⁸. The two basic methods used by most teachers are the teacher-centred method and the student-centred method.

2.1.6.1.1 Teacher-Centred

Conventional teaching is understood as verbal dissemination of information to students without active participation students. A traditional teaching method requires that students should obediently receive and believe this information¹⁶. The conventional approach is a "one-way traffic" style of teaching where students listen to the teacher and copy the notes while the teacher speaks and writes on the board²⁰. In the traditional method, student participation is minimal and students do not have the privilege to provide feedback to the teacher, and of course, this method has been widely reported to have negative impact on

student support, academic performance or low-performing students¹⁶. The conventional way of teaching is based on the teacher's needs, which lead to the satisfaction of the teacher, but the dissatisfaction of students¹⁸.

In the Nigerian educational system, the traditional teaching approach is still the most popular and dominates the teaching processes³⁶. Instead of considering experiential learning, the traditional teaching approach emphasizes learning's intellectual component³⁷. The traditional teaching approach works well for explaining textual content and works best in large classes. Nevertheless, it is a one-way communication style where the teacher controls the classroom and the students are passive. For hands-on courses like Financial Accounting, this might not be suitable³⁶.

2.1.6.1.2 Learner-Centred Method

The teacher merely serves as a facilitator in the student-centred approach, where students take the lead. In contrast, the teacher takes an active role in the teacher-centred approach, while the students learn passively. In addition to these two approaches, other student-centred teaching strategies that are employed in the classroom include gamification, cooperative learning, interactive flipped classrooms, and content-centred methods. The best academic performance of students in the classroom is attained through the use of successful and effective teaching strategies²⁸.

2.1.6.2 Differences between Teaching Strategy and Teaching Method

The primary distinction between teaching methods and teaching strategies is that the former concentrate on the kinds of activities that are employed during the teaching process, whereas the latter concentrate on techniques that support student learning and learning objectives²⁸. The approaches used in the presentation and delivery of instruction are referred to as teaching methods, whereas the strategies employed to accomplish the aims and objectives of the lessons are referred to as teaching strategies²⁸.

This is another significant distinction between the two terms. Below are the differences between teaching strategy and teaching methods:

Table 2.1: Differences between Teaching Strategy and Teaching Method

| Instructional Strategy | Instructional Method |
|---|---|
| 1 A teaching strategy is a method or collection of methods that a teacher uses to instruct students in a subject. | An instructional method is a technique that has been employed by educators for many years under a consistent framework. |
| 2 This can differ from lesson to lesson and are various techniques that are used to teach. | Teaching Method is a selection of methods used by the teacher to teach the subject material and is clear. |
| 3 The phrase "teaching strategies" describes how a teacher varies from other educators. | Teaching Method is a term that demonstrates whether the teacher follows certain rules to teach or not |
| 4 Teaching Strategies are secondary concerns of a teacher | Teaching Method is the major concern of a teacher. |
| 5. Teaching Strategies are an old method of teaching that requires some changes in curriculum as well as the motivation of students and teachers. | Teaching Method is a new method of teaching, which makes the students learn easier and faster but does not require any change in curriculum ²⁹ . |

2.1.7 Cooperative Learning

Cooperative learning is a well-organised strategy in which a group of students pursues academic goals through joint and collective efforts. Cooperative learning refers to a set of teaching and learning strategies used to enhance student collaboration in pairs or groups of up to five to incorporate peer learning into student learning³⁸. It is a teaching strategy that encourages students to learn in groups so they can learn as much as possible while being highly motivated and interested³⁵. Cooperative learning can be grouped into two main types, which are: formal cooperative learning and informal cooperative learning. The formal type refers to techniques used in classrooms, while the informal type is defined as group work among students outside the classroom³⁸.

Because cooperative learning fosters student unity, it suggests other components of a successful classroom (learner-centred). Thematic planning takes into account the interests of the students. Since pair and group activities give teachers great chances to demonstrate tangible strategies, or cognitive learning, cooperative activities naturally encourage students to interact with their surroundings²⁰. It is a teaching strategy where small groups of students with different abilities and capabilities improve their understanding through a variety of learning activities. In the cooperative learning method, each member of the group actively participates in learning and also helps each member of the group to learn which leads to higher academic results³⁹. It is a progressive way of teaching where a group of students with different abilities come together to share knowledge and brainstorm to achieve a common objective³⁹.

Students can support their own and their peers' learning by studying in small, structured groups through cooperative learning³². Students can collaborate in small groups and gain knowledge from one another using this approach. Cooperative learning is a teaching approach where two or more students collaborate to accomplish a shared objective. Across all grades and subject areas, integrated cooperative learning techniques have been shown to maximize academic achievement⁴⁰. Cooperative learning is a teaching method that allows students to play an active role by taking responsibility for their own learning, improving students' thinking and encouraging them to think critically³². This teaching and learning method teaches students to accept and render assistance, give listening ears to the ideas and perspectives of team members and to develop the right skills for democratic consensus-building and conflict management²⁴. Working together in a group setting allows students to improve their social skills through the cooperative learning approach. This includes developing communication, collaborative decision-making, self-reliance, listening to one another and discussion³². Therefore, in order to promote an educational environment that provides students with sufficient opportunities to learn and develop knowledge, skills and experiences for each member of their group, it is essential to carry out teaching and learning activities in smaller groups that are not similar, randomly selected and of different composition²⁴.

An instructional method in which students work in small groups to achieve a common objective, is frequently referred to as cooperative learning; students are split up into small groups in a cooperative learning class, with a leader assigned to each group. To accomplish a specific shared objective, each group engages in organised group activities with its leader⁴¹. In certain situations, group members collaborate without being given designated responsibilities, but in other situations, each group member bears personal responsibility for a portion of the work⁴². In a cooperative learning classroom, the instructor moves between groups as they complete their assignments in order to monitor interactions, hear what is being said, and step in when necessary⁴¹. When compared to the traditional method, the cooperative learning approach frequently affects students' learning outcomes because it boosts their capacity for creativity, problem-solving, and communication while also increasing their level of information retention³². It enables students to demonstrate their grasp of a subject or material by using various learning activities in small groups, each with varying skill levels⁴³.

Thus, it is the responsibility of each team member not only to learn but also to help other team mates learn, creating a positive atmosphere for achieving learning goals. However, the responsibility to help and support the instructional process remains the sole responsibility of the teacher, so cooperative learning is a particularly relevant strategy in this context⁴⁴. Cooperative learning, which is also collaborative learning, uses social interaction to build knowledge. The responsibility for learning also rests with the students, who must conceptualize, organize and apply the ideas acquired in the continuous assessment process⁴³. Therefore, students' capacity to support one another is strengthened when interconnectedness within related groups is increased as needed to achieve learning goals by explaining content to each other during assignments, helping with further analysis, learning constructive suggestions, and providing feedback⁴⁵. Effective interpersonal and group communication skills are critical components of the cooperative learning process⁴⁵. One important element of cooperative learning is that it helps the group collectively achieve their goal. This form of active pedagogy is focused on the concept of cooperation, interdependence, group orientation, teamwork and success³⁵.

The cooperative effort of the group in the cooperative learning method leads to learners striving for collective benefit, while realizing that all group members share a common destiny because their performance is mutually caused by individual team members and that the success of a group member is celebrated together⁴⁶. Cooperative learning also promotes student discussion, student confidence, motivation, active learning and achievement⁴⁷.

When students collaborate with others, they acquire different skills than when they work alone or independently. Learning becomes a faster and more enjoyable experience when instructions are delivered in an understandable manner. The teacher's role is actually more of a cooperative learning one, as the steps in delivering the lectures are increased⁴⁸. Additionally, the effectiveness of student learning through cooperative learning is indirectly impacted by student characteristics⁴⁸. As students are grouped into small teams, the skills necessary to be a "team player" such as collaboration, polite disagreement, verbalizing and justifying ideas, conflict resolution, and consensus building become more valuable and useful for achieving group success⁴⁷. Students who work in cooperative groups to accomplish academic assignments have the chance to improve their interpersonal skills and gain real-world experience that will help them succeed in their future careers because this approach promotes lifelong learning⁴⁷.

2.1.7.1 Objectives of Cooperative Learning

At least four significant educational objectives are met by the cooperative learning model⁴⁹:

- i. **Enhancing Academic Performance:** this seeks to enhance students' performance on critical assignments meant to lead to positive outcome. The cooperative reward structure model's creators have demonstrated that it raises the value of students' academic learning and modifies the success criteria. They have also shown that a group focus on cooperative learning can alter the standards of the student culture or make it more open to excellent learning outcomes.

- ii. **Respecting Diversity and Individual Differences:** This is the acceptance of individuals with different backgrounds, social standings, skill levels, and accomplishments. Through cooperative learning, students from various backgrounds and situations can collaborate on common projects.
- iii. **Development of Social Skills:** Students who participate in cooperative learning will gain a variety of social skills and objectives, including collaboration, comradeship, conversation, dialogue, respect for others, self-confidence and an appreciation of teamwork.
- iv. **Necessity of Life:** Since cooperation is a basic aspect of society, it must be taught in schools, just as it is in daily life. As a result, working collaboratively as a team is a crucial component of contemporary life skills that every student needs to acquire.

Advantages of Cooperative Learning

Cooperative learning techniques have the following advantages^{46, 49}:

In contrast to competitive and individual learning experiences, cooperative learning fosters positive attitudes in students toward academic subjects and the learning process itself. Since school-based learning attempts to prepare students for a profession and assume responsibility for it, learning can be seen as something and a path forward. It increases students' retention and support their learning and academic performance. It makes students to be satisfied with their learning experiences. It assists in developing students' oral communication skills and social skills. It promotes student self-esteem and positive race relations and helps to develop the relationship between the student and his teacher

2.1.7.2 Elements of Cooperative Learning

There are certain conditions under which cooperative efforts can yield positive outcomes than individualistic efforts. These conditions are:

Positive Interdependence: this refers to the idea of sinking or swimming together. This is because the efforts of each group member are necessary and essential to the success of the group and there is uniqueness in each group member's contribution to the collective effort due to their given task responsibilities, resources and roles⁴⁶.

Face-to-Face Interaction: this helps foster mutual success by teaching others how to solve problems through the sharing of one's knowledge⁴⁶.

Individual and Group Responsibility: Maintaining a small group size helps to foster both individual and group responsibility. This is due to the fact that greater individual responsibility is possible in smaller groups. Additionally, the test is individualized, meaning that each person takes it. One group member is asked to present their team's work to the teacher in front of the entire class as part of a random oral assessment. The instructor watches each group and records how often each team member contributes to the group's work. The position of controller is also given to one student per group. Students teach what they have learned to someone else and this helps with retention⁴⁶.

Interpersonal and Small Group Skills: these are skills that are required by individuals in order to perform effectively in a team and these include decision-making skills, good leadership skill, trust-worthiness, effective communication skill and conflict resolution skills⁴⁶.

Group Processing: this element ensures that team members discuss on how they will effectively achieve their goals and maintain good working relationships among team members and also describe those member's activities are useful and unhelpful and decide what behaviour to continue or change⁴⁶.

The elements or conditions for adopting a cooperative learning strategy in any educational situation can also be explained differently below:

- i. **Positive Interdependence:** This indicates that the student understands the connection between his success and that of his colleague's and that he cannot succeed without his peers' success⁴⁹.

- ii. **Individual Responsibility:** Every member is in charge of both learning the task that has been given to him and ensuring that his colleagues do the same⁴⁹.
- iii. **Direct Face-to-Face Interaction:** Members of the group are positioned to participate in conversation and debate with ease⁴⁹.
- iv. **Teamwork Skills:** Students must receive constructive and efficient work skills training in order to implement a cooperative lesson⁴⁹.
- v. **Group Programming:** this is the discussion of the group about its working method after the completion of the lesson (task) in order to determine the factors that helped or prevented the work of the group to achieve its goals⁴⁹.

From a student's perspective, a number of factors can influence how well cooperative learning goes, including: a lack of awareness, motivation, grade point average, and prior academic performance; bottlenecks within the team; a lack of materials; a lack of guidance; reliance on high-performing members; and a lack of training and feedback⁴⁸.

2.1.7.3 Factors Contributing to Successful Cooperative Learning

Cooperative learning thrives in an environment that is dominated by discipline. Cooperative learning lessons need more time than lessons applied through traditional methods. Study timetables should therefore be well planned to take this into account as if one lesson is taught in more than one consecutive lesson. Also, the classroom size must be adequate, because if the room is small and crowded with students it will be difficult for them to move their seats, it can restrict the movement of the teacher and his movement between groups in order to notice what learners are doing, therefore the teacher should look for a spacious room in the school to apply cooperative learning lessons if possible. Class size is also a factor to consider; if there are a lot of students, splitting them up into groups will result in a lot of groups, which can make it difficult to check on the teacher in the classroom, keep an eye on their work, and offer help to those who need it. Therefore, if there are a lot of students, more than one teacher can teach each

class using the classroom teaching method. Another factor that needs to be considered is students' sense of self-efficacy and commitment to work: Cooperative learning will succeed if students believe they can finish tasks or work independently, are dedicated to working in groups, and are highly motivated to work. Teachers should continuously encourage and positively reinforce students' self-reliance.

2.1.7.4 Types of Cooperative Learning

i. Formal Learning

Tasks and projects are assigned by a formal group. Additionally, they remain together until the task is finished. The organization is well-defined. Furthermore, groups are chosen by the instructor. The group may be homogeneous or heterogeneous, depending on the assignment⁵¹. Groups of three to five people are also thought to be the most productive.

ii. Informal Learning

Formal education is the exact opposite of these. In addition, they lack a strong structural system. Typically, they entail tasks that require a number of minutes⁵¹. They also typically consist of two or three people.

Model and Techniques of Cooperative Learning

Numerous cooperative learning strategies or tactics can be used to support a cooperative learning model. Techniques may fall under one or more of the following common categories: writing, graphic organizers, reciprocal teaching, or discussion and problem solving. However, within these groups, common cooperative learning methods include: Think-pair-share, Reciprocal questioning, Jigsaw, Scripted cooperation and Group research⁵². Cooperative learning models come in a wide variety. Examples include Jigsaw, Think Pair Share, Student Team Achievement Division, Team Investigation, Trio Exchange, and Group Resume²³.

2.1.8 Think-Pair-Share

Think-pair-share is a cooperative learning strategy that promotes group work among students⁵³. While the fundamentals of cooperative learning remain the same, there are a number of variations in the models used in this approach. The Think Pair Share method is one kind of cooperative learning.²³ Adopting an appropriate instructional strategy during the teaching and learning process, increases learning; however, when an inappropriate instructional technique is been adopted, academic achievement of students decreases. Therefore, no instructional strategy is ineffective in itself but every teacher must ensure the adoption of the appropriate and effective teaching strategy based on the peculiarity of the subject and topic to be taught. Therefore, Financial Accounting teachers are expected to be able to select and apply the right instructional method that will ensure students full and active participation in the learning process to promote high academic performance¹⁸.

Think-Pair-Share cooperative learning model gives students the chance to reflect, respond, and support one another through Think-Pair-Share. It is a remedy for the problem that every teacher faces when posing a question in class: having the same student or students respond repeatedly⁴⁷. Students are given time and structure to think about a particular topic using the Think-Pair-Share method, which enables them to generate their own ideas and share them with their peers⁵⁴. This method is frequently employed in classrooms to get students thinking and involved in discussions and activities. Additionally, it helps to enhance dialogue, which can be adapted to concentrate on the needs and learning of particular sets of learners⁵³. Students can fully participate in the learning process by using the Think Pair Share technique, which gives them the chance to work both independently and cooperatively with other students²³. There are three main components to think-pair-share as a cooperative learning strategy: thinking time, sharing time with a colleague, and sharing between pairs for a larger group⁵⁴. Adoption and efficient use of this approach, which integrates social and cognitive learning components, promotes the growth of critical thinking abilities and the accumulation of knowledge⁵⁴.

Students are first given the chance to think on their own and work on creating a topic or piece of content using this learning model. After that, the students divide into smaller groups to work together and refine

their concepts. In front of the class, each group was then given the chance to present the written material to other students²³. This strategy includes:

Think: The instructor poses a lesson-related query or issue to the class during the think phase. The instructor may then ask them to consider the response for a short while²³.

In pairs: During this stage, the instructor asks the students to pair in twos to talk about something they have acquired. Generally, pairing time typically lasts four to five minutes. They can find answers to the questions posed and exchange ideas with pertinent partners more easily if they interact during the allotted time²³.

Sharing: During this stage, the instructor requests that the groups exchange ideas with one another²³. The teacher will ask the pairs to present their discussions to the class if time permits, but if not few will be able to share the outcomes of the discussion material. The three fundamental steps students take when thinking about questions make the Think-Pair-Share method effective in all classrooms and at all levels since it promotes student participation⁵⁵. Think first. Students reflect on the given question independently, come up with real ideas. The second step is to pair up. Students discuss and polish their ideas in groups of two after forming pairs. In this step, students can think about others and share their thoughts. The third step is sharing. Students exchange ideas in pairs when addressing a larger group of people, like the entire class. Having a partner to rely on makes it simpler for students to present ideas to the group⁵³. It promotes students' active involvement in classroom discussion, critiquing and forming arguments both in small and large groups for the purpose of improving students' ability to understand and recollect important concepts. This teaching strategy also increases students' confidence in their abilities to solve critical and complex problems through class participation which improves their retention capacity¹⁸.

Merits of a Paired Group

- i. TPS will boost involvement among students

- ii. Fit for primary responsibilities
- iii. It is possible for more than one person to support every group member.
- iv. Easier interaction
- v. It's easier and faster to create groups

2.1.9 Problem-Solving Teaching Method

An alternative to the traditional teaching method is problem-solving teaching method. It is one of the most common student-centred instructional methods that allow students to engage actively in the classroom environment. Students are responsible for their own knowledge acquisition and it also provides an avenue for understanding and structuring various information³⁴. Students can participate in class using a problem-based learning approach, which empowers them to take ownership of their learning objectives and helps them comprehend and organise information⁵⁶. The method of solving problems can be considered as a basic tool for acquiring new knowledge, especially the transfer of learning³⁴. Whenever students encounter an obstacle, they will have to apply their knowledge and use their abilities to break the deadlock they encountered during their learning⁵⁷. Students make adequate use of their abilities and capabilities but they also share and exchange with their peers while adopting this teaching method⁵⁷

Problem solving is the process of finding solutions creatively. This teaching method requires students to be fully engaged in the learning process. It involves applying previously acquired knowledge to obtain solutions to new and unknown problems⁵⁸. This method could be described as a learning principle that promotes learner-centred and teacher-centred learning. From a constructivist perspective, students use the knowledge they have ever acquired to discover new understanding through their relationship with their immediate environment⁵⁸. In addition, the problem-solving method is said to be effective for developing manual skills and experiential learning, as well as optimizing thinking ability³⁴. Problem-solving teaching method involves the process where teacher teaches the students on how to find solutions to problem through a systematic process of starting from known to unknown in order to accomplish the intended teaching and learning objective⁵⁹.

The problem-solving method is essentially a collaborative, constructivist, and contextualised approach to learning and teaching that uses real-life problems to initiate, motivate and focus on knowledge constructions³¹. Problem-solving is the process of moving toward a solution or solution to a problem, thereby offering a solution to the problem. Problem-solving skills are an individual's ability to find meaningful solutions to problems using effective and timely strategies⁶⁰. Problem solving is prevalent in everyday modern life and is a necessary basic skill to overcome the problems we encounter on a daily basis⁶¹. A problem-solving method refers to a set of techniques for examining prodigy, integrating and correcting previous knowledge or acquiring new knowledge⁶².

Problem-solving focuses primarily on the creative ability of student. It allows students to believe in their ability to think in a creative and innovative way. Additionally, it can help the teacher make wise decisions about how to teach. It gives the student the freedom to work at his own speed and choose how to approach the problem¹¹. The problem-solving approach promotes collaboration and group discussions⁶³. It is the process of attempting to find one or more solutions to an issue. The ability to solve problems in a meaningful way by using timely and efficient strategies is known as problem-solving skills⁶². Moreover, in this learning context, the teacher's role is that of facilitator of learning, hence playing a significantly more engaging and less authoritative role³⁴. For an instructional method to prove or ensure efficiency for effectiveness; the teaching, therefore should be treated as an on-going process for the realisation of the desired changes among the learners using the right methods³³.

Advantages of the Problem-Solving Method

The benefits of problem-solving methods are numerous. However, some of its advantages are listed:

- i. It is a keen and enjoyable way of acquiring skills;
- ii. It is a technique that helps students learn the latest concept with better understanding;
- iii. Creates positive attitudes of students towards learning;
- iv. It leads to lifelong learning

- v. Comprehensively educates how to solve problems;
- vi. It motivates collective abilities and is in the same way at the level that other subjects pass on in the institution.
- vii. It helps develop students' skills of their current knowledge

One popular student-centred method is the problem-solving approach which gives room for students active participation in the learning environment, makes them responsible for their own knowledge acquisition and the opportunity to understand and structure various information³⁴.

Disadvantages of the Problem Solving Method

The problem-solving teaching method is one of the constructivist teaching methods that focus on areas where students have to face tough challenges in real-life scenarios. This approach to teaching organizes subjects and all content according to problems rather than major details³⁴. Problem-Solving method is an approach that structures learning into challenging, realistic tasks with real-world applications³⁴.

- i. It leads the student to feel insecure and afraid of making mistakes;
- ii. it makes the teacher uncomfortable;
- iii. it is difficult with students of lower skills and abilities;
- iv. it usually takes longer to get educated; and
- v. it takes a lot of planning

Properties of Problem-Solving Teaching Method

Problem-based learning is a learner-centred method. This approach actively encourages students to search, describe, and unify to find reasonable answers to real-life situations. In a problem-based learning cycle, students are provided with a real-life situation and have the following features:

- i. Students talk about the problem and make assumptions.
- ii. Students first gather prior experience and knowledge related to the issue at hand and later recognises skill inefficiencies and start looking for them.

- iii. Students use their skills to confirm the relevance of their assumptions in line with what they have been taught.
- iv. At the end of the lesson, students will get their own idea of the acquired skills

2.1.10 Student Academic Achievement

Academic success, often confused with academic achievement or performance in the literature, generally refers to the achievement of stated learning goals, satisfaction with the completion of academic activities, acquisition of required skills and competencies, and overall post-college performance as measured by cumulative grade point average, CGPA⁶⁴. Success refers to a person's level of achievement toward a predetermined goal. It refers to the level at which the goals set by someone have been achieved after a certain period of time⁶⁵. The results of a test given to students taking part in an experimental study are referred to as academic achievement⁶⁶.

Student academic achievement includes both behavioural and outcome aspects, it is a multidimensional and dynamic concept¹⁴. But the knowledge and skills a student gains during a particular academic level or the knowledge and skills gained from exposure to academic achievement in a particular subject or subjects are what lead to academic achievement. It also serves as an indicator of the student's comprehension of the required academic subjects and the degree to which he can apply them using assessment techniques adopted by the school⁶⁷. A clear indicator of the success of teaching and learning at universities, as well as the general development of students is academic achievement. It is a direct reflection of the efficacy of learning⁶⁸. It also symbolizes how much knowledge a person gains in a field of study. Overall grades, which are determined by the student's total grades at the conclusion of the school year, indicate academic achievement, which is the quantity of knowledge a person gains in an academic field⁶⁷. Academic achievement, which can be measured by continuous assessment or cumulative assessment average, is the result of a student's performance in exams at all educational levels and the extent to which a student, instructor, or institution has met their short- or long-term educational goals⁶⁹.

Academic achievement is the amount of skills and information provided to the student and the student in the curriculum and in the co-curricular. It represents student learning outcomes and the significant change in student performance as a result of their exposure to specific instructional programs²⁰. Academic performance by students in the case of this study refers to students' test results in Financial Accounting exams after the subject was taught using another teaching method, which is the cooperative learning and problem-solving teaching approach. In teaching Financial Accounting, teaching is usually implemented in a procedure that is relied on the incorporation of differentiation, which incorporates satisfying psychological and educational needs of all learners concerned¹⁸.

Grading is certainly one way to know a student's academic performance. Academic Achievement refers to exam grades, grades awarded by teachers and percentiles in academic subjects¹⁸. Academic achievement is defined in the conventional method as the students' ability to replicate a predetermined wealth of knowledge for the teacher³⁴. It is based on a trans-missive template in which the teacher is contented with the information being shared and passed on to the student. Only the "knowledge" and "teacher" poles of the teaching and learning process are necessary to form the pedagogical triangle in the conventional approach³⁴. Students who act as spectators are taught by the teacher, and they are given the information without having any input into its creation³⁴.

Academic achievement is the level of performance in a specific field of study, such as Financial Accounting⁷⁰. It is the student's academic standing at that particular time and this academic standing can be explained by the grades obtained in the courses or group of courses⁷¹. Nonetheless, academic achievement is one of the issues that students face in school, either as a result of the subjects' difficulty or the improper way that they are taught, or because they do not fully comprehend the academic subjects, which makes them lose confidence in their own skills and abilities, which impacts their ability to get along with their peers and the school environment⁴⁹.

Factors Influencing the Academic Achievement of Students in Financial Accounting

Since students are the most significant group in any educational institution, schools are entirely dependent on them, so a variety of factors influence students' academic performance⁴⁹. Numerous researchers have focused on student academic performance because it is a complex issue that is impacted by psychological, social, economic, environmental, and personal factors⁴⁹. These elements that affect academic achievement, however, differ depending on the individual and the setting. Gender has an impact on students' academic performance as well¹⁸. Numerous variables and factors successfully influence the high quality of student learning outcomes and contribute to the of student performance. These factors include those that are related to the student (mental, emotional, social, and economic), as well as those that are related to the family, school, and peers⁴⁹.

2.1.11 Teaching Methods and Financial Accounting

The teaching and study of Financial Accounting as a course in a higher education institution has remained a subject of great interest; this is because the overall presentation of students in Financial Accounting was not encouraging. As a result, there have been debates about what were the main causes of the overall low performance of these students¹⁵.

Students' achievement in Financial Accounting depends on the adopted learning methods⁷². The type of teaching methods used by teachers in delivering a Financial Accounting course is significant in determining teaching effectiveness and learning progression.

2.1.12 Cooperative Learning and Student Academic Achievement in Financial Accounting

One of the strategies that will help improve students' results in accounting is the teaching method adopted by the teacher¹⁴. Cooperative learning had a significant effect on students' academic performance, and cooperative learning strategies will help enrich and improve students' Financial Accounting performance. In a study on the effect of cooperative learning on students' academic achievement, it was found that cooperative learning activities had a positive impact on students' academic achievement in some selected

educational subjects³⁹. Thus, cooperative learning improves academic achievement and the development of students' social skills⁴⁸.

Cooperative learning has been demonstrated to boost students' self-esteem, motivation, and empathy in addition to enhancing academic learning by facilitating thoughtful discussion and the exploration of various viewpoints⁴⁷. In order to enable students to improve their ability to learn, it is of the utmost importance to introduce a cooperative learning method in the teaching of Financial Accounting that encourages students to communicate as effectively as possible³⁵. Even though the majority of studies have found that using cooperative learning produces better results than conventional methods, some of these studies still contend that more research is necessary to fully understand the practice and difficulties of cooperative learning across various stages and curricula³⁵. By integrating cooperation into both the learning process and the content, the cooperative learning approach will encourage students studying Financial Accounting to collaborate outside of the classroom.

Nonetheless, a significant obstacle to cooperative learning is its dependence on constructive group dynamics for optimal performance²⁰. Despite these challenges, the cooperative method is superior to the traditional method. Some of the challenges associated with using cooperative learning include managing noise levels, resolving conflict, releasing control over learning, and evaluating student learning.

By integrating collaboration into both the learning process and the content, the cooperative learning approach will encourage students studying financial accounting to collaborate outside of the classroom. Financial accounting is one of the many subjects that can be taught using the cooperative teaching approach. For cooperative learning to be successful, instructors should assign paired work while considering students' prior performance; that is, they should combine students with low, medium, and high academic achievement to create heterogeneous pairs⁴⁸.

2.1.13 Think-Pair-Share and Student Academic Achievement in Financial Accounting

Think-Pair-Share teaching method is an active cooperative learning strategy that is adopted by teacher to awaken students' previous knowledge about a particular phenomenon or concept. Business Education students can transition from the passive, conventional teaching approach of listening and note taking to interaction learning, where students actively participate in learning and also learn from one another, by implementing the Think-Pair-Share teaching strategy¹⁸. Students' academic performance and sense of self-efficacy in Financial Accounting are also enhanced by this teaching approach¹⁸.

By using the think-pair-share learning approach, Business Education students can improve their academic achievement in Financial Accounting. This is due to the fact that it encourages students to participate fully and fosters the development of practical skills. Compared to students taught using traditional teaching methods, students who are taught using the think-pair-share strategy perform noticeably better³⁶. Think-pair-share teaching strategy can improve students' ability to retain Financial Accounting because the strategy is designed to differentiate learning through the provision of time and structure to students in order to give them the required avenue to think about a given topic, come up with individual ideas and share same with their peer ³⁶. This strategy acts as a feedback mechanism for both students and teachers and also engages students in higher-order thinking. In addition, it gives all students the opportunity to share their thoughts with one another in order to increases their ability to retain memory³⁶.

2.1.14 Problem-Solving Teaching Method and Business Education Students' Academic Achievement in Financial Accounting

People have to deal with various complicated situations in their lives, which they try to solve practically based on their prior knowledge and experience⁵⁸. So, students should also be prepared to face the challenges of the future or upcoming situations by getting involved with some realistic situations or problems at their schools and finding appropriate solutions to the problems. Students taught Financial Accounting by using problem-solving methods had better results than students taught by traditional lecture methods³¹.

Problem-solving is a complicated teaching and learning methodology that calls for close attention. The very roots of problem-solving can be identified to rest in Dewey's ideas, which contend that experiential learning is longer-lasting³¹. In fact, independent learning and finding solutions to problems is one of the most direct ways to achieve the goals of the learning process³¹. Their integration into the existing educational framework is increasingly crucial in that it provides learners with enhanced opportunities for engagement, involvement, independence, and self-management, thereby improving their motivation³⁴.

Problem solving is a great method that makes learning a hard, reality-based concept easier. This is a great way to keep restless college students engaged and actively working to achieve Financial Accounting literacy educational goals suitable for the world of work¹⁵. The problem-solving method allows students to improve the independent learning skills needed to grow into self-sufficient learners. It is a valuable method that most instructors use to recognize what students expect in a course. The problem solving method offers lecturer ways to decide or get students overwhelmed with any tasks for better information retention and for a better student-teacher relationship¹⁵. The use of problem-solving techniques was more effective in improving student learning outcomes in various subjects¹¹.

2.1.15 Gender and Students' Academic Achievements in Financial Accounting

Gender can be defined as a socially attributed characteristic that differentiates males from females. This refers to the roles and interaction that occur between the male and the female gender in a particular context. It is the grouping of people into masculine and feminine¹¹. Achievement on the other hand, refers to the ability to perform adequately and excellently, as measured by a specific performance standard²⁰. Student academic performance is the students' learning outcome and these outcomes are: skills, concepts and wisdom acquired through the various learning activities that takes place within and outside the classroom. It is proof of the determination and dedication of the student in the pursuit of education⁵⁸. It is, therefore, of utmost importance to examine the academic achievements of students in Financial

Accounting with respect to gender, mainly in relation to socio-cultural differences between girls and boys¹⁸.

While gender of the respondent is not a determinant of achievement in learning, time at which achievement and retention are measured is, along with the extent of original learning, the working memory capacity of the learner among other factors⁷³. This would mean that it is the effectiveness and potency of the instructional strategy the teacher makes use of that are of importance in the teaching and learning processes, and not the gender of the learners⁷³. Hence, the above literature is of the opinion that the Think-Pair-Share instructional strategy is immune to any gender bias since this instructional strategy highly enhanced the performance of both male and female learners, and was a gender-free strategy for all learners.

However, this study considered the effect of gender on the outcome of any instructional method adopted during the teaching and learning process. This is because, male and female Business Education students may differ in their ability and respond differently to the type of instructional method that is being adopted by the lecturer in teaching and this as a result may influence their academic achievement in Financial Accounting.

2.2 Theoretical Framework

2.2.1 Walberg's Theory of Educational Productivity

The study is anchored on the theory of educational productivity. The learning factors that impact a student's academic achievement are the subject of the theory. The theory of educational productivity employed a number of techniques to determine the elements that affect a student's academic achievement. The fundamental objective of the theory of educational productivity is to examine the factors that contribute to students' subpar academic performance. Three fundamental components of this theory which are aptitude, instruction, and environment can be used to better understand student performance⁷⁴. The theory classified 11 influential domains of variables that can affect students' academic performance. Eight

of these variables were influenced by social-emotional influences, namely parental support, classroom management, social-behavioural attributes, student-teacher interaction, peer group, motivational-efficacy attributes, and mass media exposure⁷⁵.

The theory of educational productivity avers that educational outcomes (cognitive, attitudinal and behavioural), motivation, age/developmental level, amount of teaching, quality of teaching, classroom climate, home environment, peer group and extracurricular contact with mass media are influenced by the psychological traits of individual students as well as their immediate psychological environment⁷⁶. The characteristics of the student are reflected in the first three variables: age, ability, and motivation. The fourth and fifth variables reflect the quantity and quality of instruction while the final four variables—classroom climate, home environment, peer group, and media exposure—reflect elements of the psychological environment. According to the theory, these factors have specific effects that, if improperly managed, may impair students' academic performance. The theory's proponents pointed out that a student's academic performance can be significantly impacted by how much weight is given to a particular variable⁷⁶.

Relevance of the Theory to the Study

Students' economic and social development is closely connected to their performance academically as they play a major role in producing the highest quality graduates. Thus, this theory is of utmost importance to this study because it serves as a guide to understanding the concept of student academic achievement and those factors that can affect academic achievement, of which quality teaching is one of those factors. This therefore suggests that a quality teacher with adequate pedagogical knowledge is a crucial factor in improving the quality of student learning outcomes. This theory also helps to identify those issues that affect student academic achievement and factors on which student academic achievement depends because there are several socio-economic factors such as availability of adequately trained teacher in the school, teacher to student ratio, school attendance, class, gender of the student,

origin of the parents and location of the school. Students are the most important asset of any educational institution.

2.2.2 Social Interdependence Theory

Think-pair-share learning is based on the theory of social interdependence⁷⁶. This theory proposed that groups are dynamic entities with varying levels of interdependence among members laid the foundation for the theory of social interdependence in the early 20th century⁷⁷. This concept was furthered in the 1920s when another author propounded that what characterizes a group is the interdependence of its members, which is established through common objectives. The group functions as a "dynamic whole" as a result of this interdependence, each member or subgroup's status automatically changes when another member or subgroup's status changes. In 1949, this theory was revived by another author who came up with the theory of social interdependence. This theory believes that social interdependence occurs whenever individuals work together to achieve common goals, the outcomes for each individual are affected by the actions of others⁷⁷. In addition, motivation to achieve mutual objectives is derived from the inherent tension state each member feels. Accordingly, the occurrence of interdependence means a situation involving more than one individual or entity that dynamically influences one another. Essentially, there are two kinds of social interdependence: cooperation and competition.

Based on this theory, the absence of social dependence and interdependence will to individuals pursuing their own self-goals and cooperation can only exist when individuals work together to achieve common goals⁷⁸. However, if the situation is structured on the basis of cooperation, the achievement of individual goals is positively correlated. This is because individuals perceive that they can achieve their goals if other group members also achieve their goals. As a result, people aim for results that benefit everyone they collaborate with.⁷⁸. Yet, "competition" occurs when individuals act against one another in an attempt to achieve an outcome that can be accomplished by one or a few individuals⁷⁶. When there is a

competitive situation, the goal achievement of individuals is negatively correlated; it is believed that if one individual succeeds, then everyone else he is competitively associated with will fail to succeed as well. As a result, people start looking for an outcome that will benefit them personally but hurt everyone else in the given situation⁷⁸. "Individualistic effort" exists when individuals work alone to achieve goals unrelated to the goals of others. In contexts where the situation is organised in an individualistic manner, there exists no relationship between the outcomes attained by the participants⁷⁸. Each individual believes that they can accomplish their objective independent of the success or failure of others.

Relevance of the Theory to the Study

This research work is also anchored on social interdependence theory. These are people working collectively and cooperatively in groups to achieve a common goal. The theory is important to this study because in order to achieve the set goals, the individuals in the group must be aware of the fact that the outcome of the group depends on the individual enterprise effort. This theory is therefore related to the research reason that students learn best and faster if they work in a group and actively participate in achieving the goal set by the teacher during the teaching process.

2.2.3 Gestalt Theory of Problem Solving

Gestalt theory highlighted higher-order cognitive processes in the midst of behaviourism. The theory concentrated on the concept of "grouping," which holds that certain characteristics of stimuli lead us to organise or understand a visual field or issue in a particular way⁷⁹. The following were the main determinants of grouping: (i) proximity: things are often grouped together based on their closeness; (ii) similarity: things that are similar in some way tend to group together; (iii) closure: items are grouped together if they tend to complete some entity; and (iv) simplicity: items will be arranged into basic shapes based on symmetry, smoothness and regularity⁷⁹. Perception and problem-solving were used to explain these factors, which were dubbed the laws of organization.

Gestalt theory laid emphasis on the ability to see the problem's overall structure as an essential component to effective problem-solving behaviour. Gestalt theory maintained that learning happened when students could comprehend a concept in whole without dissecting it into its component parts. Gestalt theorist believed that students' perceptions and experiences greatly influence how they learn. Learning happens most effectively when instruction is connected to the learner's experiences in real life, and the human brain can map stimuli brought on by these life experiences⁷⁹.

Gestalt learning theory is based on the law of simplicity. It says that every learning stimulus is perceived in its simplest form⁸⁰. The psychology of this learning theory states that the senses and previous experiences are used to gain knowledge about the world around us. This also suggests that students learn from the methods they are taught in addition to being influenced by the classroom environment and academic culture⁸⁰. The theory placed its main emphasis on higher-order cognitive processes, which caused the student to use higher problem-solving skills. It is expected of students to examine the ideas that are taught to them and search for underlying parallels that unite them into a coherent whole. Students are able to identify particular connections between the ideas and perceptions that are presented in this way. Presenting information or images with gaps and elements that do not really exactly fit into the image is crucial, according to Gestalt learning theory⁸¹. The student must apply critical thinking and problem-solving abilities during this kind of learning⁸¹. The student must think and research to find the answers they seek rather than writing them down from memory. Problem solving often involves formulating recent solutions, moving forward easily using previously learned rules to achieve a set goal⁸².

Gestalt theory thus clarifies the function of insight in a learning scenario, including problem-solving abilities, which entails building a pyramid where everything else falls into place and abruptly rearranging data to make sense and address an issue. The results also help to understand that the conditions influencing a particular problem's situation will undoubtedly be different from those affecting another problem⁸³. The primary goal of Gestalt Theory is to encourage the brain to see not only the whole, but also the parts that make up that whole. The whole and the sum of its parts are two completely different

things, and learning can be achieved if students are able to cognitively process how the parts can form this whole⁸³.

Relevance of the Theory to the Study

This research work is also anchored on the Gestalt theory of problem solving (problem-solving teaching method). Theory is important to this study because if there is to be an optimal output in the educational system, there is a need for Business Education students to adequately build their cognitive domain and ability to understand, understand, analyse and synthesize problems and offer appropriate solutions when solving financial accounting questions. This theory relates to the research rationale that students and teachers can apply acquired knowledge to gain insight, identify problems, and comprehend challenging circumstances, as this will enable them to rearrange visual data about such circumstances and ultimately resolve the issue.

This theory will enlighten teachers about the need for the teaching and learning process to be participatory and more student-centred than teacher-centred, and the need to encourage students to deduce the fundamental nature of a subject or issue (that is., between elements). This is because a learning atmosphere that provides opportunities for students to showcase their skills and abilities in turn boosts students' self-confidence, critical and objective thinking ability and always leads to lifelong learning. The goal of Gestalt theory was to teach students how to approach problems. Business educators had to teach students how to represent problems in order to solve partnership account problems. Students will gain insight and be able to solve problems more effectively as a result. Students who actively participate in the teaching and learning process will comprehend and memorize information more quickly. Since the goal of the study is to provide a long-term solution to the issue of academic achievement of Business Education students in Financial Accounting in public universities in South West Nigeria, this theory is highly pertinent to the investigation.

2.3 Review of Empirical Studies

2.3.1 Study on Cooperative Learning Strategy and Students' Academic Achievement

Three research questions guided this study's conduct, and four null hypotheses were tested at 0.05 alpha levels in order to ascertain the impact of cooperative learning and inquiry-based learning strategies on senior secondary school students' academic achievement in chemistry in Anambra State, Nigeria. The study used a quasi-experimental design. A sample of 123 students was selected through multistage sampling from the 2,092 SS1 Chemistry students in the Nnewi North Local Government Area of Anambra State that made up the study's population. Three experts and one seasoned high school chemistry teacher validated the CAT, which was the instrument used to collect the data. Using the Kuder-Richardson Formula 20, the CAT's reliability was found to be 0.60. Cooperative learning and inquiry-based learning were the methods used to introduce the experimental groups to chemistry concepts, while the conventional approach was used to introduce the control group. Pre-test and post-test instruments were given both before and after treatment in order to gather data. Inferential statistics were used to analyse the collected data. The results of the study demonstrated that the mean scores of students who received chemistry instruction using a cooperative learning strategy and inquiry-based learning differed statistically significantly, favouring a cooperative learning strategy followed by inquiry-based learning. Therefore, the study suggested that secondary school chemistry teachers implement cooperative learning techniques in their instruction⁴¹.

The current research is similar to the previous work reviewed, so both studies aimed to determine the effects of using a student-centred teaching method to teach students to find out the most effective method, and both used a quasi-experimental research design. The previous researchers have made a very good effort in the research work, although the study only included high schools. The current work differs from the past reviewed work in that the past study focused on cooperative learning and inquiry-based method, while the current study focused on cooperative learning and problem-solving teaching methods. The subject that the previous study investigated was also chemistry, while this study investigated Financial

Accounting. Additionally, the subject educational institutions of this study were universities in Southwest Nigeria, while the past work under review involved secondary school students in Anambra State, Nigeria.

A study was conducted in Imo State, Nigeria to investigate the effect of cooperative learning strategy on students' academic performance in Economics in public secondary schools in Imo State. The study was guided by two research questions and two hypotheses. The research design adopted was quasi-experimental design. The study population consisted of 94,412 students enrolled in 296 secondary schools in 6 educational zones in Imo State. Purposive and cluster sampling were adopted to select 97 two upper secondary school students from two co-educational institutions. Data were collected using the EAT (Economy Achievement Test), which consisted of fifty (50) multiple-choice items. The reliability coefficient was 0.85.

The research questions were addressed using mean scores and standard deviation statistics, and the hypotheses were tested using analysis of covariance (ANCOVA). Students who were taught economics using a cooperative learning approach outperformed those who were taught the subject through lectures. The mean achievement scores of male and female students who received economics instruction using the cooperative learning approach did not differ significantly, according to the results of the post-test alone. Among other recommendations made in light of the results was that students in large classes be split up into smaller groups so they can take part in discussions and then share their research in front of the class⁶⁷.

The current study and the previous work under review are comparable in that they both employ a quasi-experimental research design and concentrate on evaluating the effects of teaching students using a student-centred approach in order to identify the most effective approach. The study made a very good effort although it only included high schools. However, the researchers focused mainly on cooperative learning itself as an experimental method, while the control method was a lecture method, and also the respondents of the previous study were high school students, not post-secondary. Current work is different from past work under review. This study dealt with two experimental methods, that is, two learner-centred methods, which are cooperative learning and problem-solving teaching methods. The

subject that the previous study investigated was also economics, while the current study investigated Financial Accounting. Additionally, the subject educational institutions of this study were universities in South Western Nigeria, while the past work under review involved secondary school students in Imo State, Nigeria.

An investigation into the impact of implementing a cooperative learning approach on the academic performance of northern Israeli elementary school pupils in mathematics was carried out. 130 math teachers from elementary schools and 40 sixth-graders from Arab schools in northern Israel made up the study sample. They were split into two groups: an experimental group and a control group. The control group used the conventional learning approach, while the experimental group used the cooperative learning approach. The research tools listed below were employed: (1) Survey to find out how cooperative learning affects "teachers' academic achievement" (2) To examine student performance in mathematics, administer a post-test to both the experimental and control groups. The findings of the study demonstrated that students' academic performance in mathematics when using the cooperative learning approach is superior to that of students using the conventional learning approach⁴⁹.

The current study and the previous work under review are comparable in that they both employ a quasi-experimental research design and concentrate on evaluating the effects of teaching students using a student-centred approach in order to identify the most effective approach. Despite the fact that the study only included elementary schools in northern Israel, earlier researchers put forth a very good effort.

However, the researchers focused mainly on the cooperative learning itself as an experimental method, while the control method was the lecture method, and also the respondents of the previous study were elementary school students, not university students. The current work differs from the past work reviewed in the sense that the current study considered two experimental methods, that is, two learner-centred methods, which are cooperative learning and problem-solving instructional methods. The subject that the previous study investigated was also mathematics, while this study investigated Financial Accounting. In

addition, the subject educational institutions of this study were universities in Southwest, Nigeria, whereas the past work reviewed involved primary school students in northern Israel.

A study comparing the effects of implementing a cooperative learning approach on the attitudes and academic performance of Grade 11 Biology students at Graceville National High School, San Jose del Monte, Bulacan City Division, was carried out. Determining the efficacy of the cooperative learning approach in comparison to traditional teaching was the study's goal. An experimental research design was employed in the study. In the design, attitudes in biology were surveyed and research test results were compared between a cooperative learning experimental sample and a control group that received direct instruction. The results of the study showed that the experimental group's score increased 41.86% more than the control group's score on the pre- and post-achievement tests of 36.49%. Additionally, the pre-post attitude survey revealed that the experimental group scored 81.90%, higher than the control group's 81.69% score. At a probability level higher than 0.05, the t-test of significance revealed no significant difference between the pre-test and post-test in either the experimental or control groups. The F-test revealed that the mean pre-attitude scores and the post-attitude scores of the experimental and control groups did not differ significantly⁸⁴.

Both the current study and the previously reviewed work seek to ascertain the effects of teaching students through cooperative learning in order to identify the most successful approach. Even though the study only included high school students in San Jose del Monte, Bulacan, the previous researchers put forth a very good effort.

However, the researchers focused primarily on cooperative learning itself as an experimental method, while the control method was a lecture method, and also the respondents of the previous study were high school students, not university students. The current work differs from the past reviewed work in that the current study considered two experimental methods that is, two learner-centred methods, which are cooperative learning and problem-solving instructional methods, while the previous study considered

only one experimental method. The subject that the previous study investigated was also biology, while this study investigated Financial Accounting. In addition, the subject educational institutions of this study were universities in Southwest Nigeria, while the past work reviewed involved high school students in San Jose del Monte Bulacan.

Five research objectives were examined in a study to determine the impact of cooperative learning strategies on elementary school students' academic achievement in English. A "pre-test post-test equivalent group design" was employed in this experimental study. Students from all government primary schools VIII year of English from Nowshera district for boys and girls made up the study's population. One hundred female students from Khesghi Payan Government High School and Batakzai Government Girls High School were chosen at random to make up the study's sample. Pre-test and pairwise random selections were used to divide the twenty-five into a control group and an experimental group. Four weeks were allotted for treatment. The researcher personally gathered the data. The t-test and percentage were used to analyse the data. Recommendations and conclusions were drawn from the data. For English teachers, students, and curriculum designers, the study was important. The findings demonstrated that both boys' and girls' performance was significantly impacted by cooperative learning. The findings indicated that both boys' and girls' conceptual development and the cooperative learning approach are significantly correlated.

The study found that both boys' and girls' VIII-year performance was significantly impacted by cooperative learning. Consequently, it is advised that every student think about using a cooperative learning approach. Students' academic performance can be improved in this way. Numerous positive outcomes were reported in the report⁴⁰.

Both the current study and the previously reviewed work seek to ascertain the effects of teaching students through cooperative learning in order to identify the most successful approach. Despite the fact that the study only included Nowshera primary school pupils, the earlier researchers put forth a very good effort in their investigation. However, the researchers focused primarily on cooperative learning itself as an

experimental method, while the control method was a lecture method, and also the respondents of the previous study were high school students, not university students. The current work differs from the past reviewed work in that the current study considered two experimental methods, which are, two student-centred methods, which are cooperative learning and problem-solving instructional methods, while the previous study considered only one experimental method. . The subject that the previous study investigated was also English, while this study investigated Financial Accounting. Additionally, the subject educational institutions of this study were universities in South Western Nigeria, while the past work under review involved primary school students in Nowshera.

The impact of the cooperative learning approach on the academic performance and retention of secondary school students in financial accounting in Enugu State, Nigeria, was empirically examined in a study conducted there. Six hypotheses and four research questions served as the study's compass. The study was carried out in Enugu State's Agbani Education Zone and used a non-randomized pre-test and post-test control group design. The sample of 165 students, 110 of whom were girls and 55 of whom were boys, were chosen from two intact classes of upper secondary school students. The study population comprised all 300 students enrolled in Co-educational Senior Secondary School 1, which offered Financial Accounting in Agbani Education Zone of Enugu State. There were 30 men and 85 women in the experimental cooperative group, 115 people in the group overall, and 15 men and 30 women in the control group. Purposive multistage random sampling was one of the sampling techniques employed. The instrument used for data collection was the Financial Accounting Achievement Test (FAAT), which consists of 60 items drawn from previous WAEC and NECO questions. The reliability coefficient was 0.68 because the researcher used the Kuder Richardson formula (K-R20) to determine pre- and post-FAAT. The mean and standard deviation were employed to answer the research questions, and the hypotheses were tested at a significance level of 0.05 using analysis of covariance (ANCOVA). According to the study, compared to their counterparts in the control group, the experimental group (cooperative group) performed better and retained more financial accounting. Additionally, there was no

discernible difference in the retention and benefits of financial accounting between male and female students. It was suggested that Financial Accounting be taught using a cooperative approach. Teachers of Financial Accounting should once more be encouraged to participate in on-going training and retraining regarding the efficient implementation of cooperative learning in the classroom²⁰.

The goal of both the current study and the previously reviewed work is to ascertain the effects of teaching financial accounting students through cooperative learning in order to identify the most successful approach. Previous researchers have made a very good effort in the research work although the study only included secondary school students in Enugu State, Nigeria.

However, the researchers focused mainly on the cooperative learning itself as an experimental method or group, while the control method of the lecture and also the respondent of the previous study were high school students, not university students. The current work differs from the past reviewed work in that the current study considered two experimental methods that is, two student-centred methods, which are cooperative learning and problem-solving instructional methods, while the previous study considered only one experimental method. . In addition, the subject educational institution of this study was universities in South Western Nigeria, while the past work under review involved senior secondary school students in Enugu State, Nigeria.

2.3.2 Think-Pair-Share and Student Achievement

"The Use of the Think-Write-Pair-Share Technique in Writing" was a study that used the quantitative method. Students in the tenth grade at one of Cipanas' vocational schools during the 2020–2021 school year made up the population. A control class and an experimental class were created from a sample of 72 students. The experimental class was taught how to write recount texts using the think-write-pair-share method. The control group, on the other hand, embraced the traditional approach. The T-Test was used to analyse the data. The T-test value was 0.027, which is lower (<) than 0.05, according to the results. The null hypothesis was thus disproved, indicating a difference between the traditional method and the class

that was taught using the think-write-pair-share technique. Here, it is evident that students who were taught the think-write-pair-share technique were more engaged and able to express their opinions in recount texts. It suggests that teaching writing about can benefit from the use of the think-write-pair-share (TWPS) technique²³.

The goal of both the current study and the earlier research under review is to ascertain how well students learn using the think-pair-share method in order to attain the best possible learning outcome. Although the study was not conducted in a higher education institution and was not about financial accounting, the researchers put forth a lot of effort in their research. Also, the researchers mainly focused on think-pair-share alone.

The current work differs from the past work under review in that this study considered two experimental methods, that is, two learner-centred methods, which are cooperative learning methods and problem-solving instructional methods. Additionally, the subject educational institutions of this study were universities in Southwest Nigeria.

A pre-test, post-test, and control group quasi-experimental design using a 2x2 factorial matrix was used in a study that looked at the impact of the Think-Pair-Share strategy on secondary school mathematics achievement in Ogun State, Nigeria. The study's population consisted of all 22,070 Senior Secondary Schools 2 (SSS2) students in Ogun State. The study was guided by three hypotheses. A multi-stage sampling procedure was used in the study. Using the Simple Random Sampling Technique, twenty students were chosen from each of the four (4) Senior Secondary Schools in the Ijebu-Ode and Ijebu-North East Local Government Areas. A total of 80 students, 40 of whom were male and 40 of whom were female, took part in the study.

The Mathematics Achievement Test (MAT), which has a reliability coefficient of 0.78, is the tool used to collect the data. The data was analysed at the 0.05 level of significance using descriptive statistics and inferential statistics (Analysis of Covariate). The results showed that the strategy had a major impact on

the students' mathematical performance. Additionally, it was determined that gender has no discernible primary impact on students' math proficiency. Thus, among other things, the researcher suggests that senior secondary schools adopt the Think-Pair-Share method of teaching when it comes to teaching and learning mathematics⁷³.

This current study is similar to the previous work under review, as both studies aim to determine the effectiveness of think-pair-share approach in teaching students in order to achieve the most effective learning outcome. The researcher' effort in this research work is commendable, but the study was not on Financial Accounting and it was also not in a higher educational institution and it was conducted in a state.. Also, the researchers mainly focused on think-pair-share alone.

The current work differs from the past work under review in that this study considered two experimental methods, that is, two learner-centred methods, which are think-pair-share and problem-solving instructional methods. Additionally, the subject educational institutions of this study were universities in Southwest Nigeria.

The purpose of the study, which was carried out in Abia State, Nigeria, was to determine how a think-pair-share teaching approach would affect the academic performance and self-efficacy of secondary school students studying financial accounting. 846 students in two senior secondary classes (SS2) in Abia who studied financial accounting made up the population of the study, which used a quasi-experimental research design with a non-equivalent control group pre-test and post-test. 78 SS2 Financial Accounting students were purposefully chosen as the sample size in order to achieve this goal. The Financial Accounting Test (FAAT) and the Adapted Academic Self-Efficacy Scale were among the tools used to collect the data. Experts in Business Education and Measurement and Evaluation assessed the instruments' face and content validity, and Cronbach Alpha was used to calculate the reliability of the FAAT and the Kuder-Richardson Formula 20 (KR-20) to assess the internal consistency of academic self-efficacy scales, yielding reliability coefficients of 0.92 and 0.79, respectively. ANCOVA, mean, and

standard deviation were used to analyse the data. These results demonstrated that the TPS teaching approach outperforms CTM in raising students' academic achievement and sense of self-efficacy in Financial Accounting. According to the researchers, students' subpar academic performance in Financial Accounting could be improved by implementing the TPS education strategy. The TPS educational strategy was recommended for use by this study¹⁸.

The goal of both the current study and the previous research under review is to determine how teaching Financial Accounting to students using a think-pair-share method can enhance their learning outcomes. Although the study only included secondary school students in Abia State, Nigeria, prior researchers have put forth a great deal of effort in their investigation into the application of the TPS educational strategy. However, previous researchers mainly focused on the think-pair-share learning approach itself as an experimental method or group, while the control method was the lecture method, and also the respondents in the previous study were high school students, not university students. While the current work is different from the past reviewed work in the sense that the current study considered two experimental methods, that is, two learner-centred methods, which are think-pair-share cooperative learning and problem-solving teaching methods. Additionally, the subject educational institutions of this study were universities in South Western Nigeria, while the past work under review was on senior secondary school students in Abia State, Nigeria.

The effects of a think-pair-share teaching approach on student performance and retention in financial accounting in secondary schools in Abia State was examined by a prior study. Four research questions and four null hypotheses served as the investigation's compass. Specifically, a quasi-experimental research design with a non-equivalent pre-test post-test control group design was used for this investigation. 846 Abia State secondary school SS2 Financial Accounting students made up the population. 78 students studying Financial Accounting were chosen from two upper secondary SS2 classes using a purposive sampling technique. The Adapted Academic Self-Efficacy Scale (AASS) and the Financial Accounting Test (FAT) were employed in the data collection process. Three specialists in

the fields of measurement and evaluation and business education helped determine the face and content validity of these instruments. The Kuder-Richardson Formula 20 (KR-20) was used to estimate the reliability and for the Academic Self-Efficacy Scale, and the Cronbach Alpha was used to estimate the scale's internal consistency. The reliability coefficients for the two measures mentioned above come out to be 0.92. The research questions were answered using the mean and standard deviation, and the null hypotheses were tested at the 0.05 level of significance using the Analysis of Covariance (ANCOVA). When compared to a traditional teaching approach, some of the study's findings suggested that the think-pair-share instructional strategy was more successful in raising student retention and academic achievement in financial accounting. Additionally, there is a notable difference between students who were taught Financial Accounting using the think-pair-share strategy and those who were taught using the traditional method in terms of achievement and retention. The researchers suggested, among other things, that instructors of Financial Accounting should employ the think-pair-share method more often in order to encourage students to actively participate in the teaching and learning process in the classroom³⁶.

The goal of both the current study and the previous research under review is to determine how teaching financial accounting to students using a think-pair-share method can enhance their learning outcomes. Even though the study only included secondary school students in Abia State, Nigeria, earlier researchers put forth a very great work. While the lecture method served as the control method, prior researchers primarily concentrated on the think-pair-share learning approach as an experimental group. Additionally, the respondents in the previous study were high school students rather than university students. While the current work is different from the past reviewed work in the sense that the current study considered two experimental methods, that is, two learner-centred methods, which are think-pair-share cooperative learning and problem-solving teaching methods. Additionally, the subject educational institutions of this study were universities in South Western Nigeria, while the past work under review was on senior secondary school students in Abia State, Nigeria.

The purpose of a study was to determine how jigsaw and think-pair-share methods affected students' performance in principles of accounting in North-Eastern Nigerian colleges. Three research questions and three objectives served as the study's compass, and three null hypotheses were developed and examined at the 0.05 level of significance. With 900 NCE Business Education students enrolled in North East colleges that offered Principles of Accounts during the 2015–2016 academic years, it used a quasi-experimental research design. 120 students received instruction in their intact classrooms. The study's data was generated using the Principles of Accounts Achievement Test (PAAT). Means and standard deviations were used to answer the stated research questions. Hypotheses one and two were tested using simple regression analysis, while the t-test statistic was used to test hypotheses three, four, and five. Based on the study's findings, it was deduced that while null hypotheses one and two were rejected, null hypotheses three, four, and five were accepted. The outcomes showed that the think-pair-share and jigsaw approaches were significant and had an impact on students' academic performance in Principles of Accounts at North Eastern Nigerian Colleges of Education. It was concluded that students can attain better outcomes by using the think-pair-share method and jigsaw puzzles. Hence, based on these, five recommendations are postulated, among which, the curriculum planners should consider jigsaw and think-pair-share methods as effective methods to teach accounting principles while devising accounting education curricula ⁵⁴.

There are some similarities between this current study and the past research work under review, so both studies focus on determining the effects of adopting a think-pair-share learning approach to teaching Financial Accounting students to improve student learning outcomes. Previous researchers have made very good efforts in the research work however, the study involved colleges of education in North Eastern Nigeria. However, the previous researchers focused on the puzzle method and think-pair-share learning as the experimental method or group, while the control method was the lecture method, and also the respondent of the previous study was college students, not college students. The current work differs from the past work reviewed in the sense that this study considered two experimental methods, that is, two learner-centred methods, which are think-pair-share cooperative learning and problem-solving teaching

methods. In addition, the scope of educational institutions of this study was universities in Southwest Nigeria, while the past work that was reviewed was on colleges of education in North-East Nigeria.

2.3.3 Problem Solving and Students' Achievements in Financial Accounting

The effect of guided discovery and problem-solving teaching strategies on the academic achievement of financial accounting students at the Colleges of Education, North Central, Nigeria, was investigated. In light of the aforementioned, the study aims to accomplish four distinct goals. Four research questions and four null hypotheses were developed to direct the study in accordance with the set objectives. For this study, a quasi-experimental research design was used. 8,923 students studying business education at the Colleges of Education in North Central Nigeria comprise the study's population. 789 NCE II students were chosen as respondents for this study using a purposive sampling technique. The Financial Accounting Achievement Test, which was developed by the researcher, was used to gather data for the study. Experts validated the instrument's face and content. The FCT College of Education in Zuba served as the site for the pilot test. The instrument's internal consistency was determined using the Spearman rank order correlation coefficient. Within six weeks, the data was gathered. In order to answer the research questions, the study's data was analyzed using means and standard deviation, and null hypotheses one, two, and three were tested using the t-test statistic. ANOVA and the Scheffe Post Hoc Pairwise Comparison test were used to test null hypothesis four. Among other things, the studies revealed that guided discovery, problem-solving, and lecture techniques significantly impacted the academic achievement in Financial Accounting students in the Colleges of Education, North Central, Nigeria. As a result, the study comes to the conclusion that various teaching strategies showcase various learning outcomes. In the control group, where the lecture method was employed, students' performance in mathematics generally decreased in terms of achievement. Students in guided discovery and problem-solving classes, on the other hand, are exposed to and accept a higher level of reasoning. Indeed, based on the study's results and conclusions, among other things, the researcher suggested that policy should

encourage Business Educators, particularly those at universities, to employ teaching strategies that involve guided discovery and problem-solving when teaching Financial Accounting⁵⁸.

Finding an efficient way to teach Financial Accounting was the goal of both the earlier study and this one. However, whereas the previous study included students from Colleges of Education in North Central Nigeria, the current study included students from all South Western Nigerian universities that offer Business Education as a field of study. Even so, the previous study greatly aided the current work in the literature review and helped the researcher determine the degree to which the teaching strategy used to teach accounting can impact both teacher effectiveness and student achievement. Since this study adopted these three methods together in teaching Financial Accounting to students in the three selected universities, it means that these three teaching methods were used to teach in each university visited in the sample

A survey design was used in a study to determine how problem-based learning approaches affected financial accounting instruction and learning at Rivers State. Twenty entrepreneurs from Rivers State University and sixty-seven from Ignatia Ajuru University of Education were among the 87 respondents who made up the population. Due to the small size of the population, no sampling was done. Therefore, a structured questionnaire called "Effects of Problem Solving Teaching Method on Teaching and Adoption of Financial Accounting Teaching in Rivers State Universities" EPSTMTLFAE was used to gather data for this study. The researcher determined the instrument's level of reliability using the PPMC method, which produced a correlation coefficient of 0.82. Means and standard deviation were used to answer the research questions, while the null hypotheses were tested using z-test statistical tool. The findings of the study showed that the problem solving method is very useful but some lecturers do not actually use it in the delivery of lessons in Rivers State universities. Among other things, it was recommended that the educational authorities in Rivers State University develop curricula and programs to enhance the effective teaching and learning of Financial Accounting and the authorities in Rivers State University should

emphasize the influence of the problem-solving method and the role of teachers in their choice of teaching method so they can increase performance⁷⁰.

While this study shared some similarities with the previous work, because in both, a finding of an effective methodology for teaching Financial Accounting was a goal; this is the present study which involved Business Education students in all universities in Southwest Nigeria offering Business Education as a field of study. Nonetheless, the previous study aided the current work in the literature review and enabled the researcher to determine the extent to which the adopted method in teaching Financial Accounting can impact teacher effectiveness and student achievement. The study was a survey, and the study population was small, despite the prior researcher's excellent research. Compared to earlier research, this study's quasi-experimental single-group research design included a larger population and sample size.

Using a pre-test and post-test non-equivalent control group design, a quasi-experimental study was carried out to ascertain the impact of problem solving and jigsaw puzzles on students' academic performance in Financial Accounting among Business Education students in a few universities in Anambra State, Nigeria. 719 business education students from Anambra State universities made up the study's population, and 123 business education students from two universities made up the sample size. The Financial Accounting Test (FAAT), which was created by the researcher using 300L previous questions from 2020 to 2022, is the research tool. Both the experimental and control groups of Business Education students took the FAAT. The instrument's test-retest methodology was used to assess the reliability of the data; A reliability index of 0.86 was obtained after analysis using the Pearson product moment correlation coefficient. The research questions were answered using the mean, and ANCOVA was used to test the hypotheses. The findings revealed students' academic performance in Business Education in Financial Accounting is improved more by the problem-solving and jigsaw puzzle learning modes than by the lecture teaching approach. The study's findings revealed that jigsaw puzzle and problem-solving learning methods can improve students' academic performance in Financial Accounting. Therefore, among other things, it was

suggested that in order to improve the academic performance of Business Education students, university instructors of the subject should start teaching Financial Accounting and other skill-based subjects using a problem-solving and puzzle approach¹¹.

While this research is related to the past work, as both were targeted at establishing a commercially viable methodology for teaching Financial Accounting, yet the current study involved Business Education students across all universities in South West Nigeria that offers Business Education as an area of study while the past work targeted Business Education students in Universities in Anambra State, Nigeria. Nonetheless, the previous study helped the researcher determine the degree to which student achievement can be impacted by the teaching strategy used when teaching financial accounting, which benefited the current work in the literature review. Even though the current study and earlier research are similar, the current study's coverage area is larger.

In Akoko-Edo, Edo State, Nigeria, a research examined how secondary school students' interest in financial accounting was affected by cooperative and problem-based learning. The study used a quasi-experimental research design to accomplish its objective. Participants in the study included 217 SSII students from three secondary schools during the 2021–2022 school years. A structured questionnaire with a reliability coefficient of 0.75 that had been validated by a few experts served as the data collection tool. Prior to the intervention, a pre-test questionnaire was given, and following the intervention, a post-test questionnaire. The research questions were answered using mean and standard deviation statistics. Analysis of Variance (ANOVA) was used to test the hypotheses at a significant level of 0.05. The hypotheses were tested using Analysis of Variance (ANOVA) at a significance level of 0.05. The study's findings showed that secondary school students in Akoko-Edo, Edo state, Nigeria, are more interested in Financial Accounting when they are taught cooperative and problem-based learning techniques. The study's authors suggested, among other things, that secondary school stakeholders, including the Ministry of Education and principals, work to establish a supportive atmosphere that would

allow teachers to employ cooperative and problem-based learning strategies and encourage students to show a strong interest in Financial Accounting in secondary schools in Edo State¹⁵.

This research is similar to the previous work as both focused on finding an effective methodology for teaching Financial Accounting. However, the current study included Business Education students in all universities in Southwest Nigeria that offer Business Education as a field of study, in contrast, the prior study concentrated on the academic achievement of secondary students in financial accounting in Akoko-Edo, Edo State, Nigeria. Nonetheless, the previous study made a significant contribution to the current literature review and helped the researcher determine the degree to which the teaching strategy used to teach accounting can impact both teacher effectiveness and student achievement. The study also used a quasi-experimental research design, and the earlier researcher did excellent research.

53 students (average age: 15 ± 0.1 years) enrolled in the first year of the Tunisian secondary school system participated voluntarily in a study that compared the effects of the problem-solving approach and the traditional method for motivation and learning during the physical education course. They were randomly assigned to either the experimental group or the control group. While the experimental group was taught problem-solving techniques, the control group's participants were instructed using a more conventional approach. For five weeks, both groups participated in a 10-hour experiment. A questionnaire was used to evaluate the situational motivation of the students: intrinsic motivation revealed the regulation, extrinsic regulation, and motivation in the first, T0, and final sessions, T2. Video analyses that were captured at T0, T1, and T2 were also used to gauge the students' learning. The experimental group significantly outperformed the control group in terms of motivational dimensions, identified regulation, and intrinsic motivation, according to the results. In learning scenarios, students' motor engagement—that is, their ability to complete the movement task successfully enough despite its difficulty—improved only in the experimental group ($p < 0.001$). In T1 and T2, waiting times within the experimental group were noticeably shorter than in T0. At three time points, the experimental group's waiting time was lower than the control group's all with $p < 0.001$. In conclusion, the problem-solving

approach is a useful tactic for improving motivation development and motor skill performance during physical education course³⁴.

This research is similar to the previous work as both were focused on finding effective teaching method. However, the current study included Business Education students in all universities in Southwest Nigeria offering Business Education as a field of study, while the previous study included first-year secondary school students in Tunisia. With a quasi-experimental research design, the previous study aided the current work in the literature review and assisted the researcher in determining the degree to which the teaching methodology used in instruction can impact both teacher effectiveness and student achievement.

2.3.4 Cooperative Learning, Problem Solving and Student Achievement in Financial Accounting

A study with six goals and a descriptive research design investigated how cooperative and problem-based learning approaches affected the academic achievement of students studying financial accounting in particular secondary schools in Lagos State. Only 200 students and 20 teachers were selected from the 321 public senior secondary schools that made up the study's population, which included all commercial students and financial accounting teachers. The data needed for the study was gathered using the Teaching Method Questionnaire (TMQ), Students Attitude Towards Learning Financial Accounting Questionnaire (SATLFAQ), and Financial Accounting Achievement Test (FAAT). The instruments' respective reliability coefficients were 0.789, 0.688, and 0.806. From the study's findings, students' academic performance and attitudes toward learning financial accounting are significantly impacted by cooperative learning and problem-solving techniques. However, in a few secondary schools in Lagos State, there was a notable difference between male and female students' academic performance and attitudes toward learning financial accounting. The study suggested, among other things, that the results be applied to help educators, school administrators, and school support personnel support or promote the use of cooperative and problem-based learning strategies as one of the frequently employed strategies in classrooms since they will help and motivate students to collaborate, which will increase their capacity to

retain

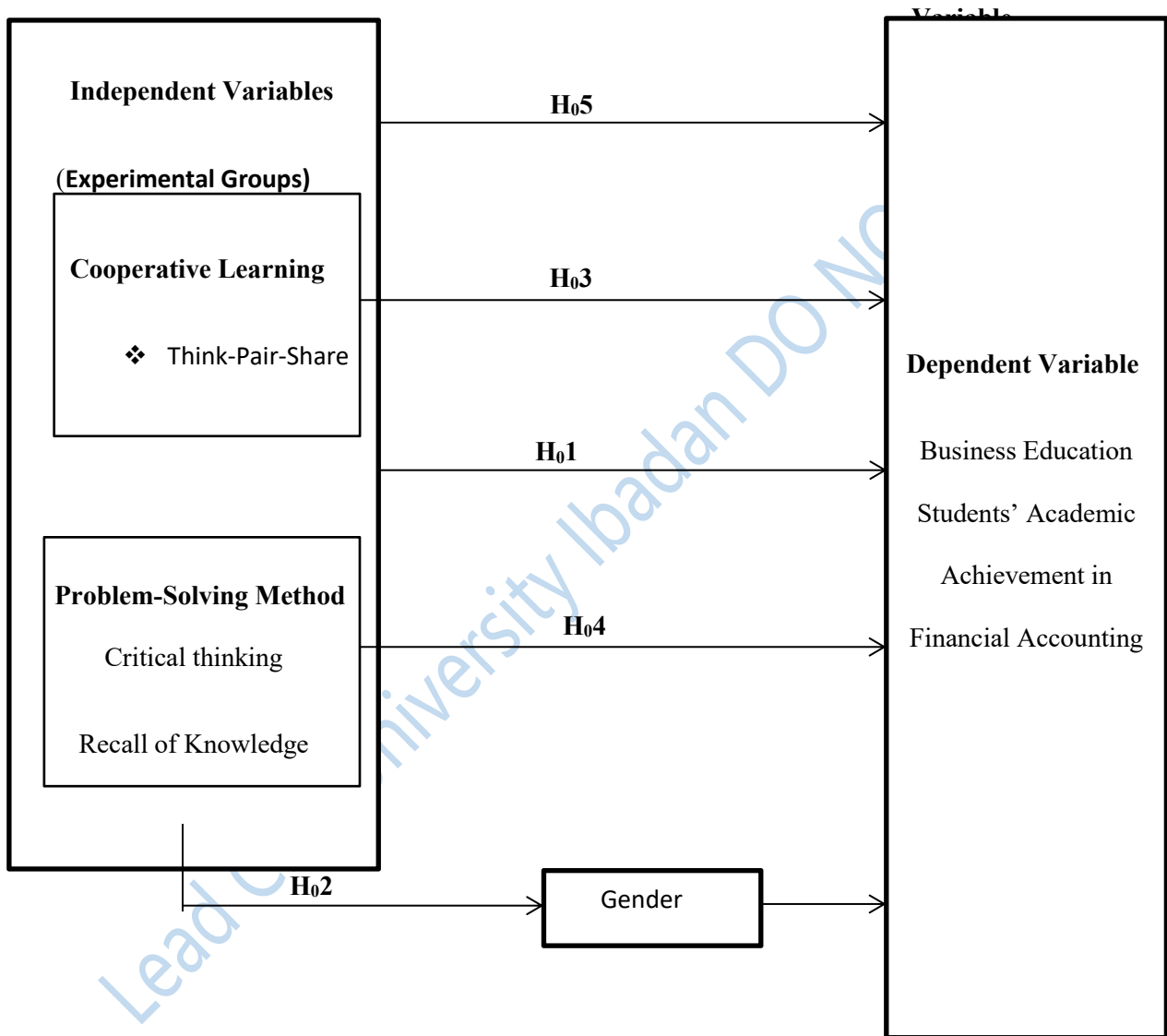
memory⁸⁵.

Finding an efficient way to teach financial accounting was the goal of both the earlier study and this one. Nonetheless, secondary school students from Lagos State, Nigeria, were the main respondents of the previous study. The previous study benefited the current work in the literature review and assisted the researcher in determining the extent to which the teaching method used in accounting instruction can affect student achievement and teacher effectiveness.

Two research questions and two hypotheses were formulated and tested at the 0.05 level of significance in a study conducted in Delta State, Nigeria, to examine the impact of cooperative and problem-solving learning strategies on biology students' academic achievement in Senior Secondary schools in Delta Central Senatorial District. The study used a quasi-experimental design. 309 Biology SS2 students from six complete classes make up the study's sample. Data was collected was using an instrument that was validated by specialists in curriculum studies, measurement, and evaluation. Results from ANCOVA, t-test, and ANOVA analysis proved that the teaching strategies had a significant impact on students' achievement; students in the cooperative, learning, and problem-solving groups performed noticeably better than those in the lecture group. The study's findings supported the researcher's conclusion that the best method for learning biology is cooperative learning. It was suggested that the biology curriculum for senior secondary schools in Nigeria incorporate cooperative learning and problem-solving techniques³⁵. Since both studies sought to identify an efficient learner-centred approach to teaching financial accounting, they are comparable. However, this study was carried out among biology secondary school students in Delta State, Nigeria. Nonetheless, the previous study improved the current literature review and assisted the researcher in determining the degree to which the method used to teach accounting can influence both teacher efficacy and student achievement.

2.4 Conceptual Model

A system is represented by a conceptual model. It includes ideas that aid people's knowledge or comprehension about a subject that the model represents. For the purpose of this study, the conceptual model as developed by the research as a way of contributing to existing knowledge is represented below diagrammatically.



The conceptual model presented above examined the variables contained in the study. It examines the interaction between and among the independent variables and the dependent variable. It also considered the effect of the moderating variable (gender) on the independent and the dependent variables.

2.5 Summary of Gaps in Literature Review

The purpose of this study is to investigate students' academic achievement in financial accounting at public universities in Southwest Nigeria and how it is affected by think-pair-share and problem-solving teaching strategies. The study's theoretical framework was based on Gestalt Problem Solving Theory, Social Interdependence Theory, and Walberg's Educational Productivity Theory, and related literature was reviewed. The study's primary concepts were academic performance, financial accounting, the think-pair-share method, and the problem-solving method. These terms were explained and their relationship to the current study was also analysed.

Within the conceptual framework, various concepts such as think-pair-share models, cooperative methods and problem-solving methods were discussed. In this chapter, the concept of Financial Accounting and the results of students in Financial Accounting were evaluated. The literature reviewed showed that there have been several studies on cooperative learning methods and problem-solving teaching methods that have been conducted in natural sciences, social studies, languages and mathematics, while few have been conducted on think-pair-share type of teaching methods and problem solving teaching methods. From the reviewed literature, it was found that earlier researchers used think-pair-share independently or problem solving teaching method independently; none of the researchers combined these two methods in their research work. Therefore, the researcher tried to bridge this gap in literature by examining the effect of these two teaching methods (think-pair-share and problem solving teaching method) on the academic achievement in Financial Accounting among Business Education students.

Also, it was observed that most of the research that was conducted was majorly at the secondary level of education and mostly in science, mathematics and social sciences. However, this research was conducted in Financial Accounting at the university level using multi-constructivist teaching methods, which is a thinking-pair-sharing model of cooperative teaching methods and problem-solving teaching methods, to find out which of these methods will produced better or different learning outcomes in the teaching and learning of Financial Accounting at university level. This type of study is relatively new in Financial Accounting, especially at the university level. Therefore, this study was undertaken to fill this gap.

Academic achievement is the result of students' mental abilities in the educational environment. Students' academic achievement includes the general cognitive ability to think, offer solutions, reason logically, retrieve and understand the latest document by drawing on prior knowledge that will in turn be placed against the outlined direct objectives. The following are some of the factors that influence students' academic performance: instructional strategies, teacher academic qualifications, school climate, and instructional resources. Accounting is the process of documenting, organising, generating, summarising, and communicating financial information to the appropriate parties, as well as translating information to support the application of specific work policies. Accounting records are kept to assess the result and how profitable the company's trading is, to check for criminal acts, to monitor the progress of the companies and to make easy financial comparisons between other competitors.

Based on the reviewed past research similar to this study, the researcher found that none of the researchers emphasised the importance of either of the two teaching methods, which are think-pair-share and problem-solving methods on academic achievement in Financial Accounting among Business Education students in public universities in Southwest Nigeria. So this is the main gap that this work has filled.

Endnotes

1. A. O. Adesope, *The role of education on national development*, **International Journal of Research in Education and Sustainable Development** 1 (10), 2021, 74-80.
2. E. A. Ogbonnaya, *Education as a key to national development in Nigeria*, **International Journal of Research and Innovation in Social Science (IJRISS)**, IV (VIII), 2020, 796-803.
3. Federal Federal Republic of Nigeria, *National policy on education*, NERDC, 6th edition. 2013
4. S. David, E. R. Ore & V. Sofolahan, *Entrepreneurial skills of business education graduates: a catalyst for sustainable development in Nigeria*, **International Journal of Office Administration and Information Management (IJOAIM)**, 3 (1), 2023, 295-305
5. I. G. Abraham-Ibe, *Business education skills: imperative for job opportunities and sustainability of graduates in Nigeria*, **African Scholar Journal of African Sustainable Development (JASD-2)**, 23 (2), 2021, 56-68.

6. O. S. Oyeyemi & O. A. Oyeyemi, *Pedagogical constraints in business education practice in universities in Rivers State, Nigeria*, **International Journal of Innovative Social & Science Education Research**, 9 (4), 2021, 111-119.
7. E. R. Ore, A. M. Hassan & M. O. Ogunbo, *Business education and digital skills: A conceptual review*, **International Journal of Advanced Research in Multidisciplinary Studies (IJARMS)**, 2 (1), 2022, 41-45,
8. E. R. Ore, *Effectiveness of business education programme and the development of employability skills of business education students in public universities in Lagos State, Nigeria*, **African journal of Educational Management**, 23 (1), 2022, 57-73, <http://journals.ui.edu.ng/index.php/ajem/article/download/870/722>
9. I. N. Nwagwu, J. I. Ofulue & F. T. Acharu, *Improving business educators' usage of synchronous interactive resources for teaching and learning business education programmes in tertiary institutions in Ebonyi State in post covid-19 era*, **Nigerian Journal of Business Education (NIGJBED)**, 9(2), 2022, 22-29.
10. A. A. Oluwadare, S. A. Omidiji & O. H. Awe, *Business education curriculum development and implementation in Nigeria: Problems and prospects*, **Nigerian Journal of Business Education (NIGJBED)**, 9(2), 2022, 123-130.
11. V. N. Okeke, *Effect of problem-solving and jigsaw teaching techniques on academic achievement of business education students in financial accounting in universities in Anambra State, Nigeria*, **European Journal of Science, Innovation and Technology**, 3 (2) 2023, 61-74.
12. B. C. Adejola, A. W. Amaewhule & M. E. Akpomi, *Evaluation of entrepreneurial competences among undergraduate business education students exposed to practical entrepreneurship learning activities in rivers state university, Port Harcourt*, **Journal of Business and Entrepreneurship Education (JOBEE)**, 2(1), 2023, 30-38, <https://jobee.rsu.edu.ng/index.php/j/article/view/4/13>
13. N. Aruchi, B. Thomas & U. S. Adiola, *Inadequate instructional facilities as a detriment to academic performance of business education students in Rivers State University*, **International Journal of Social Sciences and Management Studies**, 2(3), 2023, 1-10, <https://rajournals.net/index.php/ijssms/article/view/151/148>
14. J. O. Enwere & C. L. Ikeanyionwu, *Relative effectiveness of just-in-time teaching and peer instructional strategies on students' achievement in financial accounting in colleges of education*, **Nnadiesube Journal of Education in Africa (NJEA)**, 7 (1), 2022, 9-17 <https://acjol.org/index.php/njea/article/download/2905/2880>
15. H. Jibrin, Y. L. Olowodun, B. Mohammed, & A. L. Zanwa, *Effects of cooperative and problem-based learning methods on secondary school students interest in financial*

accounting in Akoko-Edo, Edo State, Nigeria, **AAU Journal of Business Educators**, 4(1), 2024, 414-422. <http://www.aaujbe.com.ng/>

16. S. M. O. Ayo-Sobowale & K. Oyeyemi, *Effects of cooperative learning and lecture strategies on students' academic achievement in financial accounting of business education programme in universities, South-West, Nigeria*, **International Journal of Research in Humanities and Social Studies**, 10 (2), 2023, 36-41. DOI: <https://doi.org/10.22259/2394-6296.1002005>
17. O. O. Aribisala & A. R. Abolore, *Assessment of teachers content knowledge and its effect on teaching financial accounting in some selected secondary senior schools in Lagos State*, **Jurnal Multidisiplin Madani (MUDIMA)**, 3 (5), 2023, 1088-1093. DOI: <https://doi.org/10.55927/mudima.v3i5.3311>
18. F. C. Nwaukwa & C. C. Okolocha, *Effect of think-pair-share instructional strategy on students' academic achievement and self-efficacy in financial accounting in Abia State*, **International Journal of Recent Innovations in Academic**, 4 (1), 2020, 37-48.
19. A. U. Okeke & H. Alichu, *Effect of cooperative learning strategy on students' academic achievement and interest in financial accounting in Abia State*, **NAU Journal of Technology & Vocational Education**, 7 (1), 2022, 57-65, <http://www.naujtved.com.ng/>
20. E. P. Ugwunwoti, *Effect of cooperative teaching method on senior secondary school students' achievement and retention in financial accounting in Enugu State*, **Journal of Education and Practice**, 12 (27), 2021, 106-115.
21. C. I. Okoli & I. S. Ozoegwu, *Adoption of self-monitoring-learning strategies for skill acquisition among financial accounting students in colleges of education in South-East Nigeria*, **International Journal of Education Humanities and Social Science**, 4 (1), 2021, 267-277
22. E. Bizimana, D. Mutangana & A. Mwesigye, *Enhancing students' attitude towards biology using concept mapping and cooperative mastery learning instructional strategies: Implication on gender*, **International Journal on Math, Science and Technology Education LUMAT General Issue**, 10 (1), 2022, 242-266
23. Mutia, *The effectiveness of using think-write-pair-share technique in teaching writing*, **Professional Journal of English Education**, 4 (2), 2021, 297-302, <http://dx.doi.org/10.22460/project.v4i2.p297-302>
24. R. M. Yusuf & H. Syarif, *Cooperative learning model in the teaching of foreign languages*, **Jurnal Ilmiah Mandala Education (JIME)** 9 (1), 2023, 788-795. DOI: 10.58258/jime.v9i1.4150/<http://ejournal.mandalanursa.org/index.php/JIME>

25. E. Cano-García & Ó. Rojas-Cazaluade, *Increase in academic performance due to the Application of cooperative learning strategies: A case in construction engineering*, **Journal of Technology and Science Education**, 12 (3), 2022, 578-595.
26. J. I. Ezenwafor, F. I. Aduhuekwe & O. G. Akamobi, *Strategies considered effective for teaching technology education courses in tertiary institutions In Anambra State*, **International Journal of Innovative Social & Science Education Research**, 9 (3), 2021, 27-35.
27. Learning and teaching B.Ed notes concept of teaching. *What are the basic principles of teaching*, Available Online: <https://www.examglucose.com/2021/02/what-is-teaching-concept-of-teaching.html/>
28. General Principles of Teaching. Available Online: <https://www.yogiraj.co.in/general-principle-of-teaching>
29. G. Kumari, *What is the difference between teaching methods and teaching strategies* Available Online: Available Online: <https://www.differencebetween.com/what-is-the-difference-between-teaching-methods-and-teaching-strategies>
30. Sinha P., *What is the difference between ‘teaching strategy’ and ‘teaching methods’?* available online: <https://classplusapp.com/growth/what-is-the-difference-between-a-teaching-strategy-and-teaching-methods>
31. E. Iyamuremye, I. Ndayambaje & C. M. Muwonge, *Influence of teaching approaches on students’ performance in mathematics: a meta-analysis of quasi-experimental studies in Africa*, **African Journal of Educational Studies in Mathematics and Sciences**, 17 (2), 2021, 73-94. <https://www.ajol.info/index.php/ajesms/article/view/222933/210293>
32. E. A. Amadi, P. C. Ogwunte & Nwobike, Aruchi, *Effects of problem-solving teaching method on the teaching and learning of financial accounting education in Rivers State Universities*, **International Journal of Innovative Education Research**, 9 (2), 2021, 123-131.
33. A. A. Fawale, Effect of collaborative m-learning techniques on academic performance of students in office practice. Doctoral Thesis. Maletе, Nigeria: Kwara State University, 2022
34. N. N. Norboev, *Theoretical aspects of the influence of motivation on increasing the efficiency of physical education*, **Curr. Res. J. Pedagog.** 2, 2021, 247–252.
35. O. D. Okagbare, *Effects of cooperative learning and problem-solving strategies on biology students’ academic achievement in Delta Central Senatorial District*, **Rivers State University Journal of Education (RSUJOE)**, 25 (1), 2022, 137-145 [url:www.rsujoe.com.ng](http://www.rsujoe.com.ng)
36. A. I. Ndanwu1, V. O. Ezejiofor & R. O. Esimone, *Think–pair-share instructional method: A pedagogical tool for enhancing students’ academic achievement in cataloguing and*

classification, **Tropical Journal of Education**, 4 (1/2), 2022, 1 – 9, <http://doi.org/10.47524/tje.v4i1.2>

37. A. Letina, M. Vasilj, *Challenges of implementation of cooperative learning in Initial Teacher Education*, **Šk. Vjesnik**, 70 (1), 2021, 369–395. <https://hrcak.srce.hr/file/383947>
38. C. F. Okafor & C. C. Nzomiwu, *Effect of think-pair-share instructional strategy on secondary school students' academic achievement in algebra*, **COOU Journal of Science Education and Allied Discipline**, 3 (1), 2021, 146 – 156; <http://www.josead.com/index.php/JOSEAD/article/view/15/15>
39. W.A. Amaewhule & T. I. Yellowe, *Instructional innovations adopted by accounting teachers for improved learning among secondary school students in Rivers State*, **International Journal of Innovative Education Research**, 9(4), 2021, 12-20. www.seahipaj.org
40. B. Sikandar, M. N. Shah & F. Anjum, *Effectiveness of cooperative learning strategies in the subject of english at elementary schools level*, **International Research Journal of Education and Innovation**, 02 (22) 3, 2022, 25-42.
41. T. Iheanyichukwu, O. A. T. Sotonade & E. F. Omonuwa, *Effect of the cooperative learning strategy on study habit of senior secondary school students in Ogun State, Nigeria*, **East African Journal of Education and Social Sciences EAJESS**, 3 (3), 2022, 153-159.
42. L. Mundelsee & S. Jurkowski, *Think and pair before share: Effects of collaboration on students' in-class participation*, **Learning and Individual Differences** 88, 2021, 1-35, <https://www.sciencedirect.com/science/article/pii/S1041608021000522>
43. C. S. Okoli & E. C. Okigbo, *Effects of cooperative learning strategy and inquiry based learning on secondary school students' academic achievement in chemistry in Nnewi Education Zone*, **International Journal of Innovative Research and Advanced Studies (IJIRAS)**, 8 (5), 2021, 50-56.
44. S. Mendo-Lázaro, B. León-Del-Barco, M. I. Polo-Del-Río & V.M. López-Ramos, *The impact of cooperative learning on university students' academic goals*, **Frontiers in Psychology**, 5 (12), 2022, 1-7. <https://doi.org/10.3389/fpsyg.2021.787210>
45. T. Gomez-del Rio & J. Rodriguez, *Design and assessment of a project-based learning in a laboratory for integrating knowledge and improving engineering design skills*, **Education for Chemical Engineers**, 40, 2022, 17-28, <https://doi.org/10.1016/j.ece.2022.04.002>.
46. D. S. Bestiantono, P. Z. R. Agustina & T. H. Cheng, *How students' perspectives about online learning amid the covid-19 pandemic?* **Studies in Learning and Teaching**, 1(3), 2020, 133-139.
47. M. R. Keramati & R. M. Gillies, *Advantages and challenges of cooperative learning in two different cultures*, **Educ. Sci.** 12 (3), 2022, 1-14. <https://doi.org/10.3390/educsci12010003>

48. G. Chen, *Cooperative Learning*, Available Online: <https://www.publicschoolreview.com/blog/cooperative-learning>
49. Y. M. Abd Algani & Y. F. Abu, *The effect of the cooperative learning method on students' academic achievement in Mathematics*, **Multicultural Education** 7 (3), 2021, 329-339
50. Solomon S., *Cooperative Learning: A complete guide for teachers*, Available Online: <https://www.teachervision.com/professional-development/cooperative-learning>
51. A. H. Alghamdi, *Factors affecting teaching methods among academicians in albaha university, Saudi Arabia*, **Egyptian Journal of Educational Sciences** 2 (Part One) 2022, 13-36,
52. Europass teacher academy, *What is cooperative learning? 5 strategies for your classroom*, Available Online: <https://www.teacheracademy.eu/blog/cooperative-learning-strategies/>
53. Ecole Globale, *What is cooperative learning?: Definition and types*. Available Online: <https://www.ecoleglobale.com/blog/cooperative-learning>
54. E. A. Agbede, & A. A. Ba'aba, *Effects of jigsaw and think-pair-share methods on students' academic performance in accounting in colleges of education in North-East Nigeria*, **International Journal of Innovative Social & Science Education Research**, 7 (2), 2019, 119-132
55. L. F. Ademiluyi & A. A. Fawale, *Effect of think-pair-share technique on academic performance of office practice students in colleges of education Kwara state*, **Journal of Education in Black Sea Region**, 8 (1), 2022, 7- 13.
56. A. T. Ogunleye, O. Onifade, A. J. Obadipe & M. Hamidu, *Effect of think pair share and group investigation cooperative learning strategies on students' performance in biology in Ekiti State Nigeria*, **AJSTME**, 7 (1), 2021, 60-66, <https://www.ajstme.com.ng>
57. R. Sari, T. Supatminingsih, M. Hasan & R. Rahmatullah, *The effect of numbered heads together (nht) cooperative learning model and learning interest on student learning outcomes*, **Jurnal Eduscience (JES)**, 10 (1), 2023, 87-103
58. S. David, *Effects of guided-discovery and problem-solving teaching methods on students' academic performance in financial accounting in colleges of education, north central, nigeria department of business and entrepreneurship education, college of education, Kwara State Univeresity, Malete*, **Unpublished Ph.D. Thesis**, 2019
59. K. O. Muraina & L. O. Oladimeji, *Internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria*, **International Journal on Education Insight (IJEI)**, 3(1), 2022, 9-18.

60. A. Pohan, A. Asmin & A. Menanti, *The effect of problem based learning and learning motivation of mathematical problem-solving skills of class 5 students at SDN 0407 Mondang*, **BirLE**, 3, 2020, 531–539.
61. P. W. Iyagba , *Learning and problem solving: the use of problem solving method to achieve learning in pupils*, **African Social and Educational Journal Faculty of Business Administration Imo State University, Nigeria**, 9 (3), 2020, 239-250
62. M. E. Chileya, & O. Shumba, *The impact of problem based learning on learners' academic achievement in chromatography and science learning activation*, **International Journal of Research and Innovation in Social Science (IJRISS)**, IV (IX), 2020, 778-785.
63. T. Lim, *Problem-based learning: benefits, challenges, and the way forward*, Cambodia K. Heng, K. Sol, S. Kaing, & S. Em (Eds.), *Innovations and challenges in Cambodian education: Youth's*, **Cambodian Education Forum Phnom Penh**, 1, 2023, 21-36, <https://cefcambodia.com/books/>
64. Y. P. Wang, *Effects of online problem-solving instruction and identification attitude toward instructional strategies on students' creativity*, **Front. Psychol.**, 12, 2021, 1-6
65. S. Wilson, *Teaching and learning problem solving method: A way of solving the problem scientifically*, **SELP Journal of Social Scienc**, IX (38), 2020, 53-56.
66. F. C. Wibowo, *Effects of augmented reality integration (ari) based model physics independent learning (mpil) for facilitating 21st-century skills (21-cs)*, **Journal of Technology and Science Education**, 13(1), 2023, 178-192. <https://doi.org/10.3926/jotse.1800>
67. H. O. Obasi, *Effect of cooperative learning strategy on students' academic achievement in economics in public secondary schools in Imo State, South Eastern, Nigeria*, **Journal of Research and Sustainable Development**, 7 (2), 2022, 20-40.
68. J. J. Maina & A. T. Zakari , *Academic achievement predictors for architecture students at kano university of science and technology, Wudil, Kano State*, **Bayero Journal of Pure and Applied Sciences**, 13 (2), 2020, 125 – 133, <http://dx.doi.org/10.4314/bajopas.v13i2.1>
69. G. O. Bupo & O. T. Ibeneme, *Effect of blended learning approach on business education students' academic achievement in financial accounting in universities in Rivers State, Nigeria*, **Journal of the Nigerian Academy of Education**, 16 (1), 2021, 64-77.
70. J. P. Leonardi, *Using reciprocal teaching method to improve female students' reading comprehension achievement at SMA Negeri Tujuh Prabumulih*, **Holistics Journal**, 13 (1), 2021, 57-97.
71. Z. Zhou & M. M. Siti, *A literature review on the academic achievement of college students*, **Journal of Education and Social Sciences**, 20 (1), 2022, 11-18.

72. M. Tadese, A. Yeshaneh & G. B. Mulu, *Determinants of good academic performance among university students in Ethiopia: a cross-sectional study*, **BMC Medical Education**, 22 (1), 2022, 1-9.
73. T. O. Abiodun, A. A. Asanre, M. A. Ogundeji, T. A. Odupe & M. G. Rasaki, *Effect of think-pair-share strategy on student achievement in senior secondary school mathematics*, **FNAS Journal of Mathematics and Science Education**, 3 (2), 2022, 20-25
74. H. J. Walberg, B. J. Fraser & W. W. Welch, *A test of a model of educational productivity among senior high school students*, **Journal of Educational Research**, 79, 1986, 133-139.
75. A. R. Reynolds & H. J. Walberg, *A process model of mathematics achievement and attitude*, **Journal of Research in Mathematics**, 23, 1992, 306-328.
76. J. K. Rugutt & C. C. Chemosit, *A Study of Factors that Influence College Academic Achievement: A Structural Equation Modeling Approach*, **Journal of Educational Research & Policy Studies Spring**, 5 (1), 2005, 66-90.
77. D. W. Johnson, & R. T. Johnson, *Cooperative Learning: The Foundation for Active Learning* Brito, S. M. (Ed.), **Intech Open**, 2019, 1-162, doi: 10.5772/intechopen.81086
78. D. W. Johnson & R. T. Johnson, *An educational psychology success story: Social interdependence theory and cooperative learning*, **Educational researcher**, 38 (5), 2009, 365-379
79. M. Wertheimer, *Productive thinking*, Harper & Row: New York, 1959
80. C. Lee, *Instructional design models and theories: The gestalt psychology of learning*, Available Online: <https://teachonline.asu.edu/2018/02/instructional-design-models-theories-gestalt-psychology-learning/>
81. K. Duncker, *On problem solving*, **Psychological Monographs**, 58 (5), 1945, 1-113
82. A. Woolfolk, *Educational Psychology*. Pearson New International: New York, (12th.ed.), 2014
83. Todorovic, D., *Gestalt Principles*, **Scholarpedia**, 3 (12), 2008, 5345 -5355 http://www.scholarpedia.org/article/Gestalt_principles
84. R. C. Samosa, *Cooperative learning approach as innovation to improve students' academic achievement and attitude in teaching biology* **Journal of World Englishes and Educational Practices (JWEPP)** 3 (1), 2021, 1-10
85. N. A. Ishola, S. A. Gatta & B. M. A. Mohammed-Oladunni, *Effects of cooperative and problem-solving methods on students' academic performance in financial accounting in selected secondary schools in Lagos State*, **Nigerian Online Journal of Educational Sciences and Technology (NOJEST)**, 4 (1), 2022, 205-217

Lead City University Ibadan DO NOT COPY

Chapter Three

Methodology

The procedures and methods that were adopted to examine the effects of Think-Pair-Share and Problem-Solving Teaching Methods on academic achievement in Financial Accounting among Business Education students in public Universities in Southwest, Nigeria are discussed in this chapter.

3.1 Research Design

A quasi-experimental research design was used in this research; specifically, pre-test and post-test non-equivalent control group. This is due to the fact that the study ascertained the effect of think-pair-share and problem-solving teaching methods on academic achievement in Financial Accounting among Business Education students in public universities in Southwest Nigeria. Because the subjects in this study were divided into groups according to non-random criteria, the research design is not truly experimental. Quasi experimental research design is the design allows researcher to control the treatment but is not able to randomly assign the subject of treatment¹. It gives treatments to the experimental group and then analyses the changes of the students' achievement compared to the control group². Quasi experiment design focuses on the treatment and outcome, so the data were taken from pre-test and post-test to examine whether think-pair-share and problem-solving teaching methods can improve students' achievement in Financial Accounting subject.

The 2 by 3 factorial design matrix of the study is outlined as shown below:

Table 3.1.1: The Design Matrix of the Study

| | | | |
|---------------------|----|----|----|
| Experimental Group1 | 01 | X1 | 02 |
|---------------------|----|----|----|

| | | | |
|---------------------|----|----|----|
| Experimental Group2 | 03 | X2 | 04 |
| Control Group | 05 | - | 06 |

Where:

01 - Pre-test for Experimental Group 1

03 - Pre-test for Experimental Group 2

05 - Pre-test for Control Group

02 - Post-test for Experimental Group 1

04 - Post-test for Experimental Group 2

06 - Post-test for Control Group

3.1.1 Treatments

X1 - Treatment 1 (Think-Pair-Share)

X2 - Treatment 2 (Problem-solving)

3.2 Population of the Study

Population is highly important in research in order to ensure that the sample describes the group under study³. The population of a study should reflect such an attribute like demographic variables, geographic location, and every other feature which could be relevant for research³. Therefore, the population of this study comprised 1,270 (200 level) Business Education students in all the 12 Federal and State universities in the six Southwest states in Nigeria offering Business Education as a course of study as at the time of carrying out this study.

Table 3.2.1 Population of the Study

| S/N | Name of Institution | Male | Female | Population |
|-----|---|------------|------------|--------------|
| 1. | Lagos State University | 20 | 63 | 83 |
| 2. | University of Lagos | 35 | 85 | 120 |
| 3. | Ekiti State University, Ekiti | 53 | 107 | 160 |
| 4 | Olabisi Onabanjo University, Ago-Iwoye | 68 | 152 | 220 |
| 5 | Tai-Solarin University of Education | 120 | 280 | 400 |
| 6 | Federal University, Oye Ekiti | 56 | 84 | 140 |
| 7 | Adekunle Ajasin University, Akungba | | | Nil |
| 8 | Bamidele Olumilua University of Education, Science and Technology, Ikere, Ekiti | 51 | 79 | 130 |
| 9 | Lagos State University of Education | | | Nil |
| 10 | University of Ilesa, Osun | | | Nil |
| 11 | Emmanuel Alayande University of Education, Oyo | 6 | 11 | Nil |
| 12 | Osun State University | | | |
| | Total | 409 | 861 | 1,270 |

Source: Fieldwork (Departmental Offices)

3.3 Sample and Sampling Techniques

The sample size for this study was 423 (intact class), 200 Level Business Education students from three universities that were randomly selected (two States and one Federal university). Sampling techniques involve the selection of a subset from the larger population and are core to research, since through sampling, the nature and generalizability of findings depend on it⁴. A multi-stage sampling procedure was used in the study. First, two out of the six Southwest states were selected using a simple random sampling technique and these states were Lagos State and Ogun State. Secondly, three public universities—two State and one Federal—were selected using a purposive sampling technique from the two states. The three sampled universities were: Lagos State University, University of Lagos and Olabisi Onabanjo University. The researcher adopted a purposive sampling technique in selecting the sample universities because the researcher wanted a fair representation of both federal and state universities in the sample size.

These universities were assigned into experimental groups and control group using simple balloting technique. The experimental groups were think-pair-share experimental group one and problem-solving

experimental group two while lecture method was the control group. The respondents from the three selected sampled universities were examined in intact class since it is a quasi-experimental study that does not make use of randomisation.

3.4 Description of Research Instruments

The instruments for this study were an adopted self-developed achievement test tagged “Financial Accounting Achievement Test” (FAAT) and a Lesson Guide. The achievement test was divided in two parts. The first part comprised 20 multiple choice questions while the second part was a theory question used to examine the effect of the teaching methods on Business Education students’ academic achievement in Financial Accounting. The multiple choice questions were scored 2 marks each while the theory question had 60 marks based on correct posting of transactions and in all, the total score allocated to the Financial Accounting Achievement Test (FAAT) was 100 marks. The Lesson Guide was structured and used to teach the students for six consecutive weeks during the period of conducting the research. These were used as research instruments for both the experimental and control group.

3.5 Validity of the Research Instruments

Validity is the extent to which a research *instrument* measures what it is supposed to measure and performs as it is designed to perform⁵. For the purpose of this study, the Financial Accounting Achievement Test (FAAT) and the lesson guides were validated through face and content validation by three research experts from Business Education and the Department of Test and Measurement. All vital corrections observed by these experts were effected by the researcher. This is to ensure elimination of ambiguities and simplification of the language to the comprehensive level of the respondents. The experts also made vital correction on the lesson guides to ensure adequate coverage.

3.6 Reliability of the Instrument

The reliability test determines the extent to which the measurement results will remain consistent⁶. This study made use of the split-half reliability method to statistically analyse the data obtained from student tests, the reliability of the research instruments was ascertained. Using the prepared lesson guide, the Financial Accounting Achievement Test (FAAT) was given to 20 students who were not part of the study population. The reliability of the research instrument was established at 0.75 using the Pearson Product Moment Correlation coefficient.

3.7 Data Collection

The researcher was introduced to the chosen institutions by the letter of introduction that she obtained from the Department of Art and Social Sciences Education at Lead City University in Ibadan. The duration of the data collection process at each university lasted eight weeks. The researcher used the first week to familiarise with the Heads of Department of the selected universities for the study and also conducted the pre-test. The researcher used the second to seventh weeks to teach students in each of this university with the assistant of two well-trained research assistants using think-pair-share for experimental group one, problem solving teaching method for experimental group two and lecture method (control) while the eighth week was used to conduct the post-test and marking of the tests.

The experimental groups were taught partnership account in Financial Accounting using cooperative learning (think-pair-share) and problem solving methods. Related questions were carefully cross-matched with the relevant ideas. The ideas were planned sequentially to aid better understanding of the concepts as well as arouse interest of students' to related inquiries. Real life task on Financial Accounting (Partnership Account) was made available to students after each session of teaching while the control group learnt Financial Accounting using the traditional method of teaching (lecture method).

The researcher assigned each teaching method to each of the selected sample university. Thereafter, the researcher spent eight weeks in each of these universities conducting the research. During this eight weeks period, the researcher collaborated with the lecturers in charge of Financial Accounting who

granted the researcher 60-minutes out of their lecture time to conduct the study. All three groups received instruction in Financial Accounting for the same amount of time at the same time of day, and they all studied the same Financial Accounting knowledge material. During the six weeks of instruction, every student in the groups took part in a single, 60-minute class session per week for each unit.

Prior to treatment, the experimental and control groups were given the pre-test. Since the pre-test items were to be later used as post-test items, the question papers were retrieved. Both the experimental and control groups were given the post-test following treatment. Scores were compiled after the tests were marked. After the treatment, students' performance and comprehension of Partnership Account in Financial Accounting were compared using their pre-test results. After the treatment, all groups took a post-test measuring students' achievement in Financial Accounting in the eighth week.

3.7.1 Procedures for Treatment

Stage One: a pre-test was conducted on Partnership Account for both the experimental and control groups using Financial Accounting Achievement Test (FAAT).

Stage Two: Treatment was administered after the pre-test to all the groups.

a. Experimental Groups

Two experimental groups were involved in the study. Each group was assigned different treatment: Think-Pair-Share for the first experimental group while Problem-solving Teaching was assigned to the second experimental group.

Experimental Group 1 - Think-Pair-Share

Activities before Lesson

- i. Teacher gives students topic
- ii. Students study and reflect on the topic individually to come up with possible answers to the problem

Activities during Lesson

- i. Teacher groups the students and allows them to pair up in twos with their partners to discuss the topic and the individuals reach a consensus on answers.
- ii. Teacher randomly asks students to share their ideas with the whole class.
- iii. Students share their findings.
- iv. Teacher moderates students' ideas, summarizes the presentations and provides the necessary support.

Experimental Group 2 - Problem-Solving Teaching Method

The steps to be used are:

Step 1: Teacher briefly presents the topic clearly to the students in form of a problem that needs a solution.

Step 2: Teacher gives students thought-provoking questions to clarify the topic.

Step 3: Teacher asks the students for sources of information for the problem and provides necessary materials to guide them.

Step 4: Teacher divides the students into small groups and assigns a problem to each group.

Step 5: Teacher guides each group to explore, observe and discover answers.

Step 6: Teacher reconvenes the students to discuss group findings.

Step 7: Teacher then expands upon the discoveries the students made to provide an explanation of the discoveries and instructions.

Step 8: Teacher provides necessary support to the students to make a genuine conclusion in light of available evidence, facts and figures.

Control Group

The students in the Control Group were exposed to the Conventional Method, which involves the teacher speaking exclusively from the start to the finish before assigning notes and assignments. There was no grouping of students.

Stage Three: The Financial Accounting Achievement Test (FAAT) was given to each group as a post-test at the end of the treatment.

3.7.2 Instructional Guides for Treatment

Two Instructional Guides were designed for the treatment. These are the lesson plans and instructional materials. The lesson plans was designed based on the teaching strategies (Think-Pair-Share, Problem-solving and the Conventional Method). The design of the lesson plans went through three stages. These are: pre-planning, developmental and standardization stages.

- i. Pre-planning stage: The pre-planning stage involves the topic and content to be taught.
- ii. Development of Lesson Plan: This was done under the following components: Objectives of the lesson, Previous Knowledge, Presentation – Introduction, Steps-content/teacher/students activities based on each technique, Summary and Evaluation and feedback
- iii. Standardization of Lesson Plan: This was done by the researcher supervisor.

Table 3.7.1 Summary of Field Work Activities

| S/N | Week | Activities |
|-----|------------|--|
| 1. | Week one | Introduction and administration of pre-test |
| 2. | Week two | Introduction to Partnership Account |
| 3. | Week three | Introduction to Partnership Account continuation |
| 4 | Week four | Revaluation Account |
| 5 | Week five | Revaluation Account continuation |
| 6 | Week six | Dissolution of Partnership Account |

| | | |
|---|------------|------------------------------------|
| 7 | Week seven | Dissolution of Partnership Account |
| 8 | Week eight | Administration of post-test |

3.8 Data Analysis

Both descriptive and inferential statistics were used to analyse the data. The following descriptive statistics were used: percentages, charts, mean and standard deviation. With the aid of the Statistical Package for Social Sciences (SPSS) version 27.0, hypothesis one was tested using inferential statistics of One-way Analysis of Variance (ANOVA) analysis. A Two-way Analysis of Variance (ANOVA) analysis was used to test hypothesis two while hypotheses three, four, and five were tested using dependent sample test (paired sample t) analysis, all the test were at the 0.05 level of significance.

3.9 Ethical Approval

Every employee in a company or every person in a community has the right to be shielded from the public's prying eyes. As a result, the researcher made sure that participants gave their informed consent before taking part in the study. Prior to treatment, the participants were briefed on the study's methods and objectives, and they all gave their consent. Also, all participants' responses were treated confidentially; their personal information was treated with almost care and no unauthorised individuals or entities have access to any of the participant data.

The participants also benefitted from this research as they were taught partnership account for six weeks by breaking down difficult concepts.

The researcher as much as possible remained objective throughout the study by avoiding any form of conflict of interest that would compromise the objectives of the research.

Endnotes

1. M. G. Isnawan, *Quasi-experimental design*, Nashir Al-Kutub: Indonesia, 2022
2. N. Mafruudloh, N. M. Sholikhah & R. Fitriati, *Blended learning effectiveness: a quasi-experimental study on students' ESP achievement*, **Edulangue**, 5 (2), 2022, 216-231
3. M. M. Rahman, *Sample size determination for survey research and non-probability sampling techniques: a review and set of recommendations* **J Entrep Bus Econ**, 11 (1 11) (2023), 42-62: <https://www.scientificia.com/index.php/JEBE/article/view?path=>
4. S. K. Ahmed, *How to choose a sampling technique and determine sample size for research: A simplified guide for researchers*, **Oral Oncology Reports**, 12, 2024, 1-7
<https://doi.org/10.1016/j.oor.2024.100662>.
5. D. S. Rio, A. Fitri & E. M. Rosa, *Validity and reliability of research instruments on the effect of motivation on nurse performance in moderation with nurse credentials*, **JMMR (Jurnal Medicoeticolegal dan Manajemen Rumah Sakit)**, 12 (1), 2023, 46-55,
<https://jmmr.umy.ac.id/index.php/jmmr>
6. M. Z. Rozali, S. Puteh, F. A. Yunus, N. H. Hamdan & H. F. Latif, *Reliability and validity of instrument on academic enhancement support for student-athlete using rasch measurement model*, **Asian Journal of University Education (AJUE)** 18, (1), 2022, 1-10

Chapter Four

Results and Discussion of Findings

In this chapter, data that was collected through an achievement test are presented. The data was collected from three selected States and Federal Universities in Southwest Nigeria, comprising 384 (intact class) Business Education students in 200 levels, form the sample of the study. The analyses were performed using Dependent samples t test, One-way Analysis of Variance (ANOVA) and Two-way Analysis of Variance (ANOVA) for computing the percentage distribution and testing the five hypotheses at a 5% significance level, taking into consideration the specific objectives outlined in chapter one. In general, both descriptive and inferential statistics were used for the analyses with the aid of the Statistical Package for Social Sciences (SPSS) package 27.0. This chapter includes the following sub-headings:

- 4.1 Return of Instrument and Response Rate
- 4.2 Presentation of Data
 - 4.2.1 Analysis of Demographic Data
 - 4.2.2 Research Question

4.2.3 Test of Hypotheses

4.3 Discussion of Findings

4.1 Return of Instrument and Response Rates

Table 4.1.1: Return of Instrument and Response Rates

| S/N | Name of Institution | | | Number Distributed | Number Retrieved | Number Valid | Response Rate |
|-----|-----------------------------|------------|-------------|--------------------|------------------|--------------|---------------|
| 1. | Financial (TPS) | Accounting | Achievement | 83 | 79 | 79 | 95.18% |
| 2. | Financial (Problem-solving) | Accounting | Achievement | 120 | 112 | 112 | 93.33% |
| 3. | Financial (Lecture) | Accounting | Achievement | 220 | 193 | 193 | 87.73% |
| | Total | | | 423 | 384 | 384 | 90.78% |

Source: Fieldwork, 2024

Table 4.1.1 shows the number of Financial Accounting Achievement test that was administered during the field work. It was revealed from the table that the Financial Accounting Achievement was distributed to 423 Business Education students in three universities in Southwest, Nigeria. However, only 384 were retrieved and found to be valid for the purpose of this study which represents 90.78% and this indicates a high response rate.

4.2 Presentation of Data

4.2.1 Analysis of Demographic Data

Table 4.2.1: Distribution of Participants Subject, Gender and Groups

| Subject | Gender | Control | Think-pair share | Problem solving | Total |
|--------------|--------|------------|------------------|-----------------|------------|
| Financial | Male | 60 | 17 | 31 | 108 |
| Accounting | Female | 133 | 62 | 81 | 276 |
| Total | | 193 | 79 | 112 | 384 |

Source: Fieldwork, 2024

Table 4.2.1 shows a total of 384 students with 108 males and 276 females participated in the study, which examined the effects of various teaching methods on Financial Accounting student achievement. The distribution of the study participants across teaching strategies- the traditional teaching method, think-pair-Share, and problem-solving methods revealed interesting insight. Among the 108 male participants, 60 of them were in the control group, 17 in the think-pair-Share group, and 31 in the problem-solving group. Also, there were 276 female participants overall, including 133 female students in the control group, 62 in the think-pair-Share group, and 81 in the problem-solving group.

Table 4.2.2: Distribution of Students' Pre-test Scores by Groups

| Strategies | Mean | N | Std. Deviation |
|-------------------|-------------|----------|-----------------------|
| Control | 38.057 | 193 | 11.80271 |
| Think-pair share | 44.3671 | 79 | 12.69381 |
| Problem solving | 53.1339 | 112 | 12.04608 |

Source: Fieldwork, 2024

The distribution of students' financial accounting pre-test results across the three distinct teaching approaches that is, control, think-pair-share, and problem solving is shown in Table 4.2.2. The average results show considerable variations in the way students performed prior to using these strategies. Based on 193 participants, the control group's mean pre-test score was 38.06 with a standard deviation of 11.80. These students were taught using traditional lecture method.

On the other hand, in the experimental groups, out of 79 participants, students who were taught using the Think-Pair-Share teaching method had a higher mean pre-test score of 44.37 with a standard deviation of 12.69. This suggests a moderate increase in student performance, highlighting the possible advantages of group learning in strengthening students' foundational knowledge of the subject. Furthermore, out of 112

students, the group using the Problem-solving method had the highest mean pre-test score of 53.13, with a standard deviation of 12.05. This much higher mean highlights the value of problem-solving exercises in fostering critical thinking and application abilities in financial accounting by indicating that students in this group were either more prepared or more involved in the learning process before the intervention.

These findings suggest that innovative approaches to teaching, such as Think-Pair-Share and problem solving, may benefit students' foundational knowledge even before formal instruction starts, setting them up for success in later learning stages.

Table 4.2.3: Distribution of Students' Post-test Scores by Groups

| Strategies | Mean | N | Std. Deviation |
|-------------------|-------------|----------|-----------------------|
| Control | 41.9378 | 193 | 11.86057 |
| Think-pair share | 51.5949 | 79 | 14.16435 |
| Problem solving | 59.7 | 112 | 12.52414 |

Source: Fieldwork, 2024

The distribution of students' post test scores across different testing strategies in financial accounting in Table 4.2.3 reveals significant variations in students' achievement. The data suggest that students in the control group taught using traditional lecture method performed significantly lower and more consistently, with an average score of 41.94 with a standard deviation of 11.86. On the other hand, in the experimental groups, learners who were instructed to utilise the Think-Pair-Share approach demonstrated a greater average score of 51.59, accompanied by a standard deviation of 14.16. This implies that in addition to raising student performance, the Think-Pair-Share strategy increased score variability, which may be an indication of how differently students responded to this cooperative learning environment.

With a mean score of 59.70 and a standard deviation of 12.52, the group that received instruction utilising the problem-solving technique had the best performance. In comparison to the other groups, the results suggest that students profited most from the problem-solving technique, as seen by their noticeably higher

post-test results. The comparatively modest standard deviation indicates that pupils' achievement was consistently greater while using this strategy.

Table 4.2.4: Gain Scores for the Students in the Groups

| Groups | Pre-test | Post-test | Mean Gain Score |
|------------------|-----------------|------------------|------------------------|
| Control | 38.057 | 41.9378 | 3.8808 |
| Think-pair share | 44.3671 | 51.5949 | 7.2278 |
| Problem solving | 53.1339 | 59.7 | 6.5661 |

Source: Fieldwork, 2024

Table 4.2.4 shows the mean gain score of students in financial accounting taught using the Lecture Method, Think-Pair-Share, and Problem-Solving Method. The mean gain score, which is calculated as the difference in the pre-test and the post-test means score, provides insight on how effective each teaching method was. The Lecture Method, a more conventional technique, demonstrates a modest mean gain score of 3.8808, with students improving from an average pre-test score of 38.0570 to a post-test score of 41.9378. This shows that although there is some increase in student performance as a result of the lecture approach, it is not significant.

On the other hand, students who use the Think-Pair-Share technique get a much higher mean gain score of 7.2278, improving from 44.3671 on the pre-test to 51.5949 on the post-test. This suggests that Think-Pair-Share's collaborative method is more successful in improving students' comprehension and memorisation of the subject matter, which improves performance significantly. Furthermore, the approach

to problem-solving also has a significant influence; the mean gain score is 6.5661. In the post-test, students' average scores rose from 53.1339 in the pre-test to 59.7000. Though the improvement is not as high compared to Think-Pair-Share, it is a significant increase and shows how problem-solving exercises help students understand and apply accounting principles more deeply.

Overall, the evidence points to the effectiveness of all three teaching techniques in terms of improving student proficiency in financial accounting, with Think-Pair-Share having the most influence. Problem solving and Think-Pair-Share are particularly beneficial. This emphasises how important interactive and cooperative teaching methods are for encouraging higher academic achievement.

4.2.2: Research Question

Research Question One: What is the level of Business Education students' academic achievement in Financial Accounting in Public Universities, Southwest, Nigeria?

To evaluate the research question, three categories were used to group the students' academic achievement level: low achievement level (0-49), moderate achievement level (50-69), and high achievement level (70-100) based on the pre-test scores from the achievement test. The category's mean scores and standard deviations were also calculated. The results presented in Table 4.2.2.1

Table 4.2.2.1: Level of students' Academic Achievement in Financial Accounting

| Category of Achievement | Score Range | Number of Scores | Percentage % | Mean Score | Standard Deviation |
|-------------------------|-------------|------------------|--------------|-----------------|--------------------|
| Low Achievement | 0-49 | 185 | 48.2% | 36.75675 | 7.741 |
| Moderate Achievement | 50-69 | 154 | 40.10% | 56.40909 | 5.4552 |
| High Achievement | 70-100 | 45 | 11.72% | 74.66666 | 5.2656 |
| Total | | 384 | | 167.8325 | 18.461 |

Source: Fieldwork, 2024

Table 4.2.2.1 presents the analysis of the research question on the academic achievement levels of 384 students in Financial Accounting. This analysis offers important insights into the performance of the students. The finding revealed that out of the sample of 384 students, 185 fall within the low achievement group, with scores ranging from 0 to 49 with a mean score of 36.76 (SD = 7.74), the findings showed that

48.2% of the students were in the low achievement group, suggesting substantial difficulties in learning the subject.

On the other hand, 154 students representing 40.10% of the participants fell into the Moderate achievement group, exhibiting more consistent performance although being below the high achievement criteria, with a mean score of 56.41 (SD = 5.46). The group's results are consistent with research which demonstrated how students move from mediocre to high accomplishment through the use of incremental instructional changes and the repetition of essential ideas.

Finally, 45 students, corresponding to 11.72% of the total study participants had excellent accomplishment scores, with a mean score of 74.67 (SD = 5.27), ranging from 70 to 100. Though this group is the smallest, its performance is excellent, which is in line with empirical research that high achievers frequently flourish in settings that present challenges and possibilities for advanced learning. In answer to the research question raised, the level of academic achievement of Business Education students in Public Universities in Southwest, Nigeria at an average level.

4.2.3: Test of Hypotheses

H₀1: There will be no significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching methods on academic achievement in Financial Accounting among Business Education students in public Universities in Southwest, Nigeria.

To test the hypothesis, One-way Analysis of Variance (ANOVA) was conducted. The results are reported in Table 4.2.3.1a, b, c, and d

Table 4.2.3.1a Descriptive Statistics for students Achievement in financial Accounting using Problem solving, Think-pair-share and Lecture methods

| Academic Achievement | | | | | | | | |
|----------------------|-----|---------|----------------|------------|----------------------------------|-------------|---------|---------|
| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | Lower Bound | Upper Bound | | |
| Lecture Method | 193 | 41.9378 | 11.86057 | 0.85374 | 40.2539 | 43.6217 | 10 | 85 |
| Think-pair-share | 79 | 51.5949 | 14.16435 | 1.59361 | 48.4223 | 54.7676 | 20 | 90 |
| Problem solving | 112 | 59.7500 | 12.45713 | 1.17709 | 57.4175 | 62.0825 | 25 | 85 |
| Total | 384 | 49.1198 | 14.71917 | 0.75113 | 47.6429 | 50.5967 | 10 | 90 |

Source: Fieldwork, 2024

Table 4.2.3.1a presents descriptive statistics for students' academic achievement across three teaching methods: lecture, think-pair-Share, and problem-solving. Students taught using the problem-solving method achieved the highest mean score (59.75 ± 12.46), indicating superior performance compared to those taught with the think-pair-Share method (51.59 ± 14.16) and the lecture method (41.94 ± 11.86). The variability in scores, as indicated by the standard deviations, suggests that while the problem-solving method led to higher and more consistent scores, the lecture method had the least variation but the lowest overall achievement. The 95% confidence intervals confirm that the differences in mean scores are likely to be statistically significant, emphasising the effectiveness of the problem-solving method in enhancing academic achievement.

Table 4.2.3.2b: ANOVA result comparing students' achievement in Financial Accounting using problem solving, think-pair-share and Conventional lecture methods

| Academic Achievement | | | | | |
|----------------------|----------------|-----|-------------|--------|------|
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 23095.198 | 2 | 11547.599 | 73.470 | .000 |
| Within Groups | 59883.292 | 382 | 157.174 | | |
| Total | 82978.490 | 384 | | | |

Source: Fieldwork, 2024

Table 4.2.3.2b showed the ANOVA results for comparing students' academic achievement across three teaching methods: Problem-Solving, Think-Pair-Share, and Conventional Lecture. The ANOVA yields an F-statistic of 73.470 with a p-value of 0.000, indicating a highly significant difference in academic

achievement scores among the teaching methods. The significant F-statistic indicates that the variability in scores due to the different teaching methods is much greater than the variability within each method group.

Decision: Since the probability value is less than 0.05 significance level, the null hypothesis was rejected and the study concludes that there is a significant combine effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching method on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria.

Table 4.2.3.1c: Teaching Strategies Effect Sizes^a

| | | Point Estimate | 95% Confidence Interval | |
|----------------------|-----------------------------|----------------|-------------------------|-------|
| | | | Lower | Upper |
| Academic Achievement | Eta-squared | .278 | .204 | .345 |
| | Epsilon-squared | .275 | .200 | .341 |
| | Omega-squared Fixed-effect | .274 | .200 | .341 |
| | Omega-squared Random-effect | .159 | .111 | .205 |

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

Table 4.2.3.1c shows the effect size estimates for students taught by think-pair-share, problem-solving, and traditional lecture approaches. Under a fixed-effect model, the eta-squared (η^2) and epsilon-squared (ϵ^2) statistics show that around 27.8% and 27.5% of the variance in academic achievement can be attributed to these teaching methods under a fixed-effect model. The estimations' 95% confidence ranges, which span around 20% to 34%, suggest that these methodologies have a moderate to big influence. In a similar vein, the Omega-squared fixed-effect estimate indicates that these instructional strategies account for 27.4% of the variance, confirming the significant influence these methods have on student performance.

With a confidence range spanning from 11.1% to 20.5%, the point estimate decreases to 15.9% when taking the Omega-squared statistic into account under a random-effect model. This lower number implies that there may be some heterogeneity in the efficiency of these instructional methods across various groups or circumstances. The random-effect model's more cautious estimate draws attention to possible

disparities in results when these strategies are employed in different educational environments, even while the fixed-effect model offers robust estimates demonstrating a considerable influence. All things considered; these results highlight the effectiveness of the teaching methods on students' academic achievement.

Table 4.2.3.1d: Multiple Comparisons

Dependent Variable: Academic Achievement

| (I) Strategy | (J) Strategy | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|------------------|------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Lecture Method | Think-Pair-share | -9.65711* | 1.67449 | .000 | -12.9495 | -6.3647 |
| | Problem solving | -17.81218* | 1.48920 | .000 | -20.7403 | -14.8841 |
| Think-Pair-share | Lecture Method | 9.65711* | 1.67449 | .000 | 6.3647 | 12.9495 |
| | Problem solving | -8.15506* | 1.84198 | .000 | -11.7768 | -4.5333 |
| Problem solving | Lecture Method | 17.81218* | 1.48920 | .000 | 14.8841 | 20.7403 |
| | Think-Pair-share | 8.15506* | 1.84198 | .000 | 4.5333 | 11.7768 |

*. The mean difference is significant at the 0.05 level.

Table 4.2.3.3d shows the Tukey's post-hoc analyses, required to determine which instructional strategies differ substantially from one another. The results show that students taught using the Think-Pair-Share method scored 9.66 points higher on average than those taught with the Lecture Method, with this difference being statistically significant at the 0.05 level ($p = .000$). When comparing the Lecture Method to the Problem-Solving methods, the latter outperformed the former by 17.81 points, also with a significant difference ($p = .000$). Furthermore, in the comparison between Think-Pair-Share and Problem-Solving teaching methods, the Problem-Solving method led to an average increase of 8.16 points in academic achievement over Think-Pair-Share, and this difference is likewise statistically significant ($p = .000$). These significant mean differences underscore the effectiveness of both the Think-Pair-Share and Problem-Solving methods over the traditional Lecture approach in enhancing student academic performance.

In the final analysis, there was a statistically significant difference in students' academic achievement across the different teaching methods, as determined by one-way ANOVA ($F(2, 382) = 73.470, p = .000$). A Tukey post hoc test revealed that students taught using the Think-Pair-Share method scored significantly higher (9.66 ± 1.67 points, $p = .000$) compared to those taught using the Lecture method. Additionally, the Problem-Solving method led to a significantly greater improvement (17.81 ± 1.49 points, $p = .000$) in academic achievement compared to the Lecture method. Moreover, when comparing the Think-Pair-Share and Problem-Solving methods, the Problem-Solving method resulted in a statistically significant higher score (8.16 ± 1.84 points, $p = .000$). These findings highlight the superior effectiveness of both the Problem-Solving and Think-Pair-Share methods over the traditional Lecture approach in enhancing student academic performance.

H₀₂: There will be no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on academic achievement in Financial Accounting among Business Education students in public Universities in Southwest, Nigeria.

To test the hypothesis, Two-way Analysis of Variance (ANOVA) was conducted. The results are reported in Table 4.2.3.2 a, b and c

Table 4.2.3.2a: Descriptive Statistics

| Dependent Variable: Academic Achievement | | | | |
|--|---------------------|---------|----------------|----|
| Gender | Teaching Strategies | Mean | Std. Deviation | N |
| Male | Lecture Method | 40.2500 | 12.47455 | 60 |
| | Think-pair-share | 53.8235 | 12.81228 | 17 |
| | Problem solving | 61.5484 | 11.95781 | 31 |

| | | | | |
|--------|------------------|---------|----------|-----|
| Female | Total | 48.5000 | 15.57046 | 108 |
| | Lecture Method | 42.6992 | 11.54043 | 133 |
| | Think-pair-share | 50.9839 | 14.55064 | 62 |
| | Problem solving | 59.0617 | 12.64748 | 81 |
| Total | Total | 49.3623 | 14.39441 | 276 |
| | Lecture Method | 41.9378 | 11.86057 | 193 |
| | Think-pair-share | 51.5949 | 14.16435 | 79 |
| | Problem solving | 59.7500 | 12.45713 | 112 |
| | Total | 49.1198 | 14.71917 | 384 |

Source: Fieldwork, 2024

The descriptive statistics in Table 4.2.3.2a present an overview of students' academic achievement based on gender and the teaching strategies employed. For male students, the Problem-Solving method resulted in the highest mean score ($M = 61.55$, $SD = 11.96$), followed by the Think-Pair-Share method ($M = 53.82$, $SD = 12.81$), and the Lecture method ($M = 40.25$, $SD = 12.47$). The total mean score for male students across all teaching strategies was 48.50 ($SD = 15.57$), indicating that male students performed better with more interactive teaching methods, particularly the Problem-Solving approach, as compared to the traditional Lecture method.

For female students, a similar pattern emerged, with the Problem-Solving method leading to the highest academic achievement ($M = 59.06$, $SD = 12.65$), followed by the Think-Pair-Share method ($M = 50.98$, $SD = 14.55$), and the Lecture method ($M = 42.70$, $SD = 11.54$). The overall mean for female students across all strategies was slightly higher ($M = 49.36$, $SD = 14.39$) than for male students. When comparing the total mean scores across all students and strategies, the Problem-Solving method consistently resulted in the highest academic performance ($M = 59.75$, $SD = 12.46$), while the Lecture method produced the lowest ($M = 41.94$, $SD = 11.86$). These results suggest that both male and female students benefit more from interactive and problem-oriented teaching strategies, with the Problem-Solving method being particularly effective in enhancing academic achievement.

Marginal Means of Students Academic Achievement

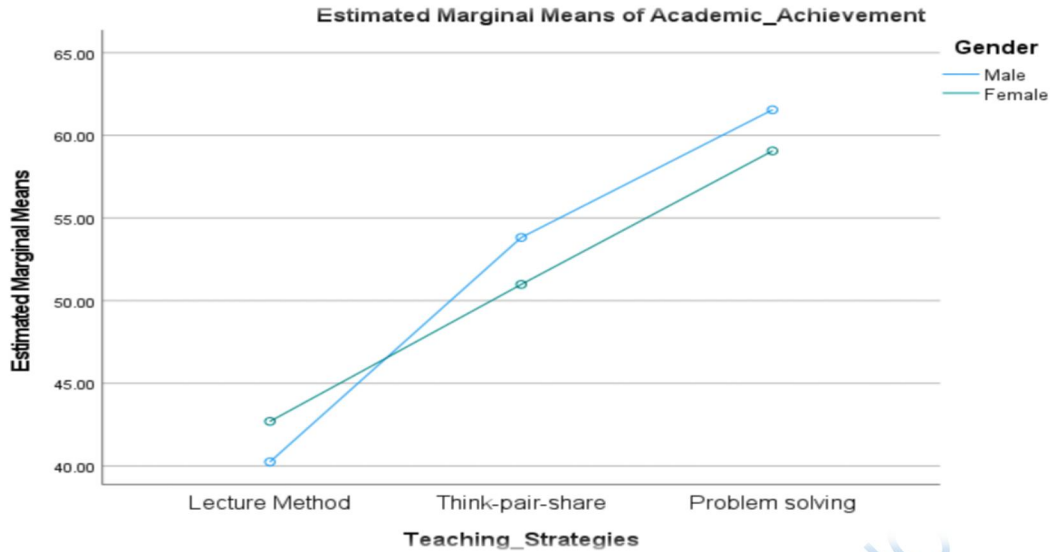


Figure 4.1 showing Plot of the Results

The plot of the mean of students' academic achievement score for each of the group of gender and teaching strategy are plotted in a line graph as shown in figure 4.1. From the graph, the mean plot demonstrates how gender affects how well various teaching methods work for students' academic achievement. In every teaching approach, male students consistently do better than female students; the difference grows as the strategies become more engaging. For both genders, the Problem-Solving approach produces the best academic accomplishment; nevertheless, the effect is more noticeable for males, who exhibit the most progress. This implied that interactive teaching tactics such as Think-Pair-Share and Problem-Solving are beneficial to all students, but that male students profit more from them than female students do. This highlights the need of taking gender into account when choosing instructional strategies.

Table 4.2.3.2b: ANOVA Result showing Gender Interaction Effects of Think-pair-share, Problem-solving and Lecture Methods on Students' Academic Achievement

| Dependent Variable: Academic Achievement | | | | | |
|--|-------------------------|-----|-------------|----------|------|
| Source | Type III Sum of Squares | Df | Mean Square | F | Sig. |
| Corrected Model | 23589.446 ^a | 5 | 4717.889 | 30.028 | .000 |
| Intercept | 661533.957 | 1 | 661533.957 | 4210.538 | .000 |
| Gender | 57.586 | 1 | 57.586 | .367 | .545 |
| Teaching Strategies | 21437.915 | 2 | 10718.958 | 68.224 | .000 |
| Gender * Teaching Strategies | 493.493 | 2 | 246.747 | 1.570 | .209 |
| Error | 59389.043 | 378 | 157.114 | | |
| Total | 1009476.000 | 384 | | | |
| Corrected Total | 82978.490 | 383 | | | |

a. R Squared = .284 (Adjusted R Squared = .275)

A two-way ANOVA was conducted that examined the effect of gender and teaching strategy on students achievement, the findings in Table 4.2.3.2b shows that the model has a substantial overall impact on students' academic achievement ($F(5, 378) = 30.028, p = .000$), indicating that the model's various components and teaching methods have a combined effect on students' achievement. Academic achievement is significantly impacted by the teaching methods alone ($F(2, 378) = 68.224, p = .000$), underscoring the significance of the instructional approach. The efficiency of the teaching methods did not substantially differ between male and female students, nevertheless, as indicated by the lack of statistical significance in the gender and teaching methods interaction ($F(2, 378) = 1.570, p = .209$).

Decision: Since the probability value is greater than 0.05 significance level, the null hypothesis was accepted and it was concluded that there is no significant main effect of gender on academic achievement ($F(1, 378) = .367, p = .545$), indicating that gender by itself does not significantly affect students' academic achievements in this situation.

Table 4.2.3.2c: Multiple Comparisons

Dependent Variable: Academic Achievement

Tukey HSD

| (I) Teaching Strategies | (J) Teaching Strategies | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|-------------------------|-------------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Lecture Method | Think-pair-share | -9.6571* | 1.67417 | .000 | -13.5964 | -5.7178 |
| | Problem solving | -17.8122* | 1.48891 | .000 | -21.3156 | -14.3088 |
| Think-pair-share | Lecture Method | 9.6571* | 1.67417 | .000 | 5.7178 | 13.5964 |
| | Problem solving | -8.1551* | 1.84163 | .000 | -12.4884 | -3.8217 |
| Problem solving | Lecture Method | 17.8122* | 1.48891 | .000 | 14.3088 | 21.3156 |
| | Think-pair-share | 8.1551* | 1.84163 | .000 | 3.8217 | 12.4884 |

Based on observed means.

The error term is Mean Square (Error) = 157.114.

*. The mean difference is significant at the .05 level.

Since there was no gender interaction effect in Table 4.2.3.2b, the Tukey HSD post hoc analysis reveals significant differences in academic achievement between the various teaching strategies. Students taught using the Think-Pair-Share method scored significantly higher than those taught using the Lecture Method, with a mean difference of 9.66 points ($p = .000$). Moreover, students instructed with the Problem-Solving method outperformed those in the Lecture Method by 17.81 points, also a statistically significant difference ($p = .000$). When comparing the Think-Pair-Share and Problem-Solving methods, the Problem-Solving method led to an average increase of 8.16 points in academic achievement, which is statistically significant as well ($p = .000$). These results clearly indicate that both the Think-Pair-Share and Problem-Solving methods are more effective than the traditional Lecture method, with Problem-Solving showing the greatest impact on student academic achievement.

Decision: Since the significant level of the gender and teaching methods is greater than 0.05, the hypothesis is not rejected and the study concludes that there is no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria.

H₀₃: There will be no significant difference between the academic achievement in financial accounting among Business Education students taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria.

To test the hypothesis, dependent sample t test (paired sample t test) was conducted. The results are reported in Table 4.2.3.3a, b and c.

Table 4.2.3.3a: Descriptive statistics for students' Achievement in Think pair share and Lecture methods

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|------------------|---------|----|----------------|-----------------|
| Pair 1 | Think-Pair-Share | 51.5949 | 79 | 14.16435 | 1.59361 |
| | Lecture Method | 40.7595 | 79 | 11.61036 | 1.30627 |

Source: Fieldwork, 2024

Table 4.2.3.3a shows the mean scores of students' utilisation of Think pair share teaching method and those using lecture teaching method. The result indicates a meaningful difference in the mean score of utilisation of Think pair share teaching method (51.59 ± 14.16) and those using lecture teaching method (40.75 ± 11.61). This indicates that using Think-pair share teaching strategy gives a higher student achievement in Financial Accounting than adopting a conventional teaching method (lecture method).

Table 4.2.3.3b: Paired Samples t-test result showing difference between Think pair share and Lecture teaching methods

| Mean | Std. Deviation | Std. Error Mean | Paired Differences | | t | df | Sig. (2-tailed) |
|------|----------------|-----------------|---|-------|---|----|-----------------|
| | | | 95% Confidence Interval of the Difference | | | | |
| | | | Lower | Upper | | | |
| | | | | | | | |

| | | | | | | | | | |
|------|------------------|----------|----------|---------|---------|----------|-------|----|------|
| Pair | Think-pair share | | | | | | | | |
| 1 | teaching Method | 10.83544 | 17.44767 | 1.96302 | 6.92738 | 14.74351 | 5.520 | 78 | .000 |
| | Lecture teaching | | | | | | | | |
| | Method | | | | | | | | |

Source: Fieldwork, 2024

A test for the difference using the paired sampled t-test was carried out to determine whether there is a significant difference in the mean achievement scores of students who used Think pair share method and lecture method. The result in table 4.2.3.3a and 4.2.3.3b indicates that the mean score (51.59 ± 14.16) of students who utilised Think pair share teaching method is significantly different ($t = 5.520$, $df = 78$, $p < 0.01$) than the mean score of students using lecture teaching method (40.75 ± 11.61).

Decision: Since the significant value is less than the 5% level of significance, the null hypothesis was rejected and it was concluded that there is a significant difference between the academic achievement of Business Education students in Financial Accounting taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria.

Table 4.2.3.3c Think-pair share and Lecture Methods Effect Sizes

| Pair | Standardiser | Point Estimate | 95% Confidence Interval | | | |
|------|------------------|--------------------|-------------------------|-------|----------|---------|
| | | | Lower | Upper | | |
| 1 | Think-pair share | Cohen's d | 59.70 | 110 | 12.52414 | 1.19413 |
| | Lecture Method | Hedges' correction | 40.8545 | 110 | 10.88036 | 1.03740 |

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

The Think-Pair-Share (TPS) technique and the Lecture technique's impact sizes on students' academic achievement are robustly compared in Table 4.2.3.3c. Cohen's d and Hedges' adjustment were the two standardisers used in the analysis. With a point estimate of 17.44767 for Cohen's d and 17.53212 for Hedges' adjustment, the results show a significant effect size. According to these calculations, the TPS approach outperforms the lecture method in terms of its influence on student achievement.

The reliability of these results is further supported by the 95% confidence intervals for both effect sizes, which show a similar range for Hedges' correction and a lower limit of .378 and an upper bound of .860 for Cohen's *d*. The robustness of the results is further supported by the strong agreement between the two measures, even after applying a small adjustment factor in Hedges' correction. The significant impact size highlights how well the Think-Pair-Share approach works to improve academic achievement, especially when contrasted with conventional lecture-based training.

H₀₄: There will be no significant difference between the academic achievement in financial accounting among Business Education students taught using Problem-Solving method and those taught using Lecture method in public Universities in Southwest, Nigeria.

To test the hypothesis, dependent sample test (paired sample *t*) analysis was conducted. Data collected on students' achievement scores from Problem-solving and Lecture methods were subjected to paired sample *t* test. The results are reported in Table 4.2.3.4a, b and c.

Table 4.2.3.4a: Descriptive Statistics for students Achievement in Problem-solving, and Lecture methods

| | Mean | N | Std. Deviation | Std. Error Mean |
|-----------------|---------|-----|----------------|-----------------|
| Problem-solving | 59.70 | 112 | 12.52414 | 1.19413 |
| Lecture Method | 40.8545 | 112 | 10.88036 | 1.03740 |

Source: Fieldwork, 2024

Table 4.2.3.4a shows the mean scores of students exposed to problem solving method and conventional lecture methods. The result indicates a meaningful difference in the mean score of students exposed to problem solving teaching method (59.70 ± 12.52) while that of the conventional lecture method (40.85 ± 10.88).

Table 4.2.3.4b: Paired Samples *t* test result showing difference between problem-solving and Conventional lecture method

| Paired Differences | T | Df | Sig. |
|--------------------|---|----|------|
|--------------------|---|----|------|

| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | (2-tailed) |
|-----------------------------------|----------|----------------|-----------------|---|----------|--------|-----|------------|
| | | | | Lower | Upper | | | |
| Problem Solving Lecture Method | 18.84545 | 17.33014 | 1.65236 | 15.57052 | 22.12039 | 11.405 | 109 | .000 |

Source: Fieldwork, 2024

A test for the difference using the paired sampled t-test was used to determine whether there is a significant difference in the mean achievement scores of students who utilised problem solving Method and conventional lecture method.

Decision: The result in table 4.2.3.4a and 4.2.3.4b indicates that the mean score (59.70 ± 12.52) of students who utilised problem-solving teaching method is significantly different ($t = 11.405$, $df = 109$, $p < 0.01$) than the mean score of students who utilised conventional lecture method (40.85 ± 10.88). Since the significant value is less than the 5% level of significance, the null hypothesis was rejected and it was concluded that there is a significant difference between the academic achievement of Business Education students in financial accounting taught using Problem-Solving method and those taught using Lecture methods in public Universities in Southwest, Nigeria.

Table 4.2.3.4c Problem solving and Lecture Methods Effect Sizes

| | | Standardiser ^s | Point Estimate | 95% Confidence Interval | |
|-----------------|--------------------|---------------------------|----------------|-------------------------|-------|
| | | | | Lower | Upper |
| Problem-solving | Cohen's d | 17.33014 | 1.087 | 0.850 | 1.322 |
| Lecture Method | Hedges' correction | 17.39005 | 1.084 | 0.847 | 1.317 |

a. In order to estimate the effect sizes, the denominator is utilized. The sample standard deviation of the mean difference is used in Cohen's d. The sample standard deviation of the mean difference plus a correction factor are used in Hedges' correction.

Using Cohen's d and Hedges' adjustment, the analysis in Table 4.2.3.4c compares the effect sizes between the Problem-Solving Method and the Lecture Method. Cohen's d has a point estimate of 17.33014 with a 95% confidence interval that spans from 0.850 to 1.322. The point estimate is much larger than 0, suggesting that students exposed to the problem-solving method did better on average than those taught using the lecture method. This suggests a high positive influence of the problem-solving method over the lecture method.

Furthermore, Cohen's d results were corroborated by Hedges' adjustment, which corrects for small sample size bias. This correction produced a point estimate of 17.39005 with a confidence range of 0.847 to 1.317. The benefit of the Problem Solving method in improving students' problem-solving abilities is reinforced by the closeness of the confidence intervals in both measures, indicating the dependability of these results.

These results are in line with earlier studies that have continuously demonstrated that active learning techniques, such as problem-solving method, outperform more passive teaching techniques, such as lectures, in terms of student engagement and academic performance.

H₀₅: There will be no significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture method in public Universities in Southwest, Nigeria.

To test the hypothesis, dependent t test (paired sample t test) was conducted. Data collected on students' pre-test and post-test scores from problem solving, Think pair share, and Lecture methods were subjected to dependent t test. The results are reported in Table 4.2.3.5abc.

Table 4.2.3.5a: Descriptive Statistics for students pre-test and post-test scores

| | | Mean | N | Std. Deviation | Std. Error Mean |
|------|------------------|---------|-----|----------------|-----------------|
| Pair | | | | | |
| 1 | Pre-test scores | 43.7526 | 384 | 13.66988 | .69759 |
| | Post-test scores | 49.0807 | 384 | 14.68792 | .74954 |

Source: Fieldwork, 2024

Table 4.2.3.5a shows the pre-test and post-test mean scores of students exposed to problem-solving, think-pair-share and conventional lecture methods. The result indicates a difference in the pre-test scores (43.75 ± 13.66) and post-test mean scores of students exposed to different teaching method (49.08 ± 14.68). This result indicates that there is an improvement in the students' achievement scores after exposing them to the treatments.

Table 4.2.3.5b: Paired Samples t test result showing difference between pre-test and post-test scores

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|------------------|--------------------|----------------|-----------------|---|----------|--------|-----|-----------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Pre-test Scores | | | | | | | | |
| Post-test Scores | -5.32812 | 13.63231 | .69567 | -6.69594 | -3.96031 | -7.659 | 383 | .000 |

Source: Fieldwork, 2024

A test for the difference using the paired sampled t-test was used to determine whether there is a significant difference in the pre-test mean score and post-test mean score of students who utilised problem solving, think-pair-share and conventional lecture method. The result in table 4.2.3.5a and 4.2.3.5b indicates that the pre-test mean score (43.75 ± 13.66) is significantly different ($t = -7.659$, $df = 383$, $p < 0.01$) than the post-test mean score of students who utilised problem solving, think-pair-share and conventional lecture method (49.08 ± 14.68).

Decision: Since the significant value is less than the 5% level of significance, the null hypothesis was rejected and it was concluded that there is a significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture method in public Universities in Southwest, Nigeria.

Table 4.2.3.5c Pre-test and Post-test Effect Sizes

| | | Standardiser ^s | Point Estimate | 95% Confidence Interval | |
|------------------|--------------------|---------------------------|----------------|-------------------------|----------|
| | | | | Lower | Upper |
| Pre-test Scores | Cohen's d | 13.63231 | -.391 | -.494 | 13.63231 |
| Post-test Scores | Hedges' correction | 13.64567 | -.39 | -.494 | 13.64567 |

a. In order to estimate the effect sizes, the denominator is utilized. The sample standard deviation of the mean difference is used in Cohen's d. The sample standard deviation of the mean difference plus a correction factor are used in Hedges' correction.

Cohen's d and Hedges' adjustment, which both quantify the extent of the difference between the two sets of scores, were used to compute the effect sizes for the pre-test and post-test scores. A point estimate of 13.63231, with a 95% confidence interval spanning from -0.494 to -0.391, was obtained using Cohen's d. This implies that the pre-test and post-test scores differ significantly, pointing to a large impact size. Hedges' correction yielded a comparable point estimate of 13.64567 with a nearly same confidence range of -0.494 to -0.390. This correction accounts for potential bias in small sample sizes. These findings demonstrate the efficacy of the intervention or teaching method used between the two tests by confirming that the post-test scores are considerably higher than the pre-test levels. The participants' scores improved as a result of the intervention of innovative teaching method.

Table 4.2.4: Summary of Results

| S/N | Hypotheses | Result | Decision |
|-----|--|--|--|
| 1 | There will be no significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching method on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria | $F_{(2, 382)} = 73.470$, prob. < 0.05) | There is a significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching method on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria |
| 2 | There is will be no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on Business Education students' academic achievement in Financial Accounting in public | $(F_{(2, 378)} = 1.570$, $p = .209)$. | There is no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on Business Education students' academic achievement in Financial Accounting in public |

| | Universities in Southwest, Nigeria | Universities in Southwest, Nigeria |
|---|---|---|
| 3 | There will be no significant difference between the academic achievement of business education students in financial accounting taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria. ($t = 5.520, df = 78.$ $Prob < 0.05$) | There is a significant difference between the academic achievement of business education students in financial accounting taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria. |
| 4 | There will be no significant difference between the academic achievement of business education students in financial accounting taught using Problem-Solving method and those taught using Lecture methods in public Universities in Southwest, Nigeria ($t = 11.405, df = 109.$ $Prob = 0.05$) | There is a significant difference between the academic achievement of business education students in financial accounting taught using Problem-Solving method and those taught using Lecture methods in public Universities in Southwest, Nigeria |
| 5 | There will be no significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture method in public Universities in Southwest, Nigeria ($t = -7.659, df = 383.$ $Prob < 0.05$) | There is a significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture method in public Universities in Southwest, Nigeria |

Source: Fieldwork, 2024

4.3 Discussion of the Findings

The study examined the effects of Think-Pair-Share and Problem-Solving teaching method on academic achievement in Financial Accounting among Business Education students in Public Universities, Southwest, Nigeria. From the descriptive analysis, the distribution of gender and group assignments

among the 384 students who participated in the study that examined the effects of various teaching methods, including traditional lectures, Think-Pair-Share, and problem-solving on students' academic achievement in Financial Accounting; from the finding, among the 193 male participants, the Think-Pair-Share (17) and problem-solving (31) groups had fewer members than the control group (60). On the other hand, the majority of the 276 female participants with 62 in Think-Pair-Share and 81 in problem-solving were part of the control group (133). This distribution shows that a higher percentage of students, especially female students make up the control group and a lower number of students participated in the experimental groups.

The current study's findings, which examine the effects of various teaching methods on students' academic achievement in Financial Accounting, are in line with those of other studies conducted in similar educational contexts. In particular, the lecture method produced a marginal 3.88 rise, suggesting that it has little potential to improve student performance. This is in line with research results from a study done in one of the states in Nigerian (Abia state) that sought to ascertain the impact of an instructional technique called Think-Pair-Share (TPS) on students' academic performance and self-efficacy in secondary school Financial Accounting. The researchers found that the TPS instructional strategy was more effective than conventional teaching methods (CTM) in improving students' academic performance and self-efficacy in financial accounting¹. In this current study, the TPS technique demonstrated a notable mean gain of 7.23, reinforcing the previous conclusion that this strategy greatly enhances students' understanding and retention of the material. Furthermore, the problem-solving strategy in this study yielded a notable mean gain of 6.57, showing that even if its overall efficacy was somewhat lower than that of Think-Pair-Share, it nevertheless provided students with a solid basis for applying their knowledge. This result is consistent with another study that looked at how the Think-Pair-Share and Jigsaw approaches affected students' performance in Principles of Accounting at institutions in North-eastern Nigeria. In the study, students' academic performance was significantly impacted by both the Think-Pair-Share and the Jigsaw puzzle approaches, yielding superior outcomes than traditional methods².

These findings show that innovative approaches to teaching, such as Think-Pair-Share and problem-solving, are superior to standard lectures in raising students' academic achievement in Financial Accounting. Adopting these tactics in the classroom will greatly improve student engagement, understanding, and retention, which will eventually lead to higher academic achievements, according to the data from various researches. In order to create a more engaged and productive learning environment, instructors are advised to include these instructional methods during classroom instruction.

Findings from research question one revealed that the level of Business Education students academic achievement in Financial Accounting in public universities in Southwest, Nigeria was an average level. The findings showed that 48.2% of the students were in the low achievement group, suggesting substantial difficulties in learning the subject. According to research, students who score lower on achievement scales frequently gain from individualised instruction and focused remediation. In addition, students in the low achievement group significantly improved their comprehension of difficult subjects when teachers used customised teaching strategies³. This implies that there is great opportunity to improve these students' Financial Accounting performance by adopting a more interactive and collaborative teaching strategies and methods. Also, from previous findings, it was observed that students with average performance range will greatly benefit from extra help or cooperative learning, especially in subjects where they consistently do well but not exceptionally⁴.

Finally, students who perform above average from the results of the findings, corresponding to 11.72% of the total study participants had excellent accomplishment scores. Though this group is the smallest, its performance is excellent, which is in line with empirical research that high achievers frequently flourish in settings that present challenges and possibilities for advanced learning. The report goes on to say that by strengthening knowledge and abilities, high achievers and moderate achievers alike can benefit from a collaborative learning environment where high achievers can mentor peers⁵.

Analysis of hypothesis one shows a significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching method on Business Education students' academic achievement in Financial

Accounting in public Universities in Southwest, Nigeria. The finding could potentially be attributed to the synergistic benefits of these teaching approaches. TPS encourages students to actively participate in collaborative learning and critical thinking, while problem-solving strengthens analytical abilities by pushing students to apply theoretical information to real-world situations⁶. Even though it is more conventional, the lecture technique offers systematic material delivery and basic knowledge. Combining these techniques result in a more thorough comprehension of financial accounting topics by fostering a balanced learning environment that takes into consideration a variety of learning requirements and styles. By utilizing a combination of TPS, problem-solving, and lecture techniques, educators can cater to a diverse range of students' learning preferences and needs. This comprehensive approach not only enhances students' understanding of financial accounting but also enables them to develop a well-rounded skill set that is essential in the business world. By encouraging active participation, critical thinking, and analytical reasoning, educators can better prepare students for success in their future careers⁷.

Furthermore, by integrating learners in several cognitive processes using different teaching strategies as needed in the teaching and learning process encourages deeper learning and retention. Students are encouraged to investigate, discuss, and apply information through the interactive nature of TPS and problem-solving techniques. This higher-order thinking is then reinforced by the methodical way that the content is presented in lectures. Through active processing and internalization of the knowledge, this multimodal method guarantees that students are not just learning but are also improving their academic performance. Adopting different teaching strategies in classroom instruction often improve students' continued interest and enthusiasm which in turn increase their chances of success in Financial Accounting⁸.

These findings are in line with previous studies who also found similar result for instance, in a study that examined how well the TPS technique encourages critical thinking in nursing students found that TPS improves student engagement and fosters a deeper comprehension of difficult subjects by giving students enough time to reflect, engage in peer discussion, and share with the wider group⁹. This cooperative discussion approach is especially applicable to Financial Accounting, since active student engagement

may foster the development of the necessary analytical and critical thinking abilities. TPS can greatly enhance academic performance by promoting critical thinking and active learning, both of which are essential for mastering financial accounting.

Similarly, a study on guided reading sessions emphasises how well this teaching method may integrate social and cognitive learning components. By incorporating TPS into the educational process, students are able to improve their comprehension abilities while also participating in insightful conversations that foster a better grasp of the material¹⁰. When it comes to Financial Accounting, where understanding intricate financial concepts is crucial, using TPS can help students understand the content more thoroughly and do better academically.

The efficacy of TPS is further supported by a study that demonstrates how TPS promotes active student participation and gives them chances to present their viewpoints, which improves cognitive understanding¹¹. Applying this in Financial Accounting, TPS can help students actively engage with challenging financial concepts, leading to a better grasp of the subject matter and, consequently, higher academic achievement.

Apart from TPS's advantages, the problem-solving approach is essential for improving students' academic achievement. The significance of innovative problem-solving technique in education cannot be overemphasised, as this technique enables learners to utilise their prior knowledge, experiment and uncover new material and ideas. This approach can dramatically increase students' comprehension and application of accounting concepts, which will improve their academic performance in the field of Financial Accounting, where problem-solving abilities are critical for evaluating financial data and reaching well-informed conclusions¹².

Even though it is sometimes critiqued for being passive, the lecture approach can be beneficial in some learning environments.

Combining these three teaching strategies; Think-Pair-Share, Problem-Solving, and Lecture creates a strong learning environment that meets the requirements of a wide range of pupils. TPS promotes critical thinking and active engagement; problem-solving strengthens analytical abilities and knowledge

application; and lectures give the required academic context. When combined, these strategies can greatly improve the academic performance of Business Education students in Financial Accounting by offering a well-rounded curriculum that encourages comprehension and application of difficult financial ideas.

According to the analysis of hypothesis two, the academic achievement of Business Education students in Financial Accounting at public universities in Southwest Nigeria has no significant interaction effect by the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods, and gender. There could be a number of reasons for the lack of a significant interaction effect between gender and the teaching methods (Think-Pair-Share, Problem-Solving, Lecture) on the academic achievement of Business Education students in Financial Accounting. One possibility is that the instructional strategies used may naturally foster an inclusive learning environment that is advantageous to all students, regardless of gender. The Think-Pair-Share approach, for example, promotes group work and peer debate, which may aid in filling in knowledge gaps, and problem-solving techniques frequently highlight application and critical thinking, catering to a range of learning styles. Given that both male and female students interact with the material and activities in a comparable way, this instructional approach's universality may lessen the impact of gender disparities on academic achievement⁹. It is also probable that there are little to no gender disparities in academic accomplishment in the particular environment where the research was conducted, indicating that both male and female students perform equally well when exposed to certain teaching strategies. This could be a reflection of more general social shifts in which the conventional gender gaps in education are less noticeable, especially in areas like Business Education. Furthermore, the interaction between gender and teaching style may not be as important to students' academic achievement as their general drive, past knowledge, and study habits. Consequently, the lack of a significant interaction implies that any gender-related disparities in academic achievements may be overshadowed by the efficiency of the teaching strategies, resulting in equal levels of performance for all research participants⁹. The study's findings, which show no significant interaction effect between gender and the teaching strategies (Think-Pair-Share, Problem-Solving, and Lecture) on the academic achievement of Business Education students in Financial Accounting, are consistent with previous research highlighting the

minimal influence of gender on academic performance, especially in subjects that place a strong emphasis on collaborative learning. For example, a study finding showed that there is no relationship between gender and students' math performance⁹. This suggested that teaching strategies might overcome gender differences in academic performance.

Similarly, a finding from a study that utilises a cooperative teaching technique, observed no significant variations in the post-test mean scores of male and female students, indicating that good teaching practices may generate an egalitarian learning environment where both genders do equally well¹³. These findings provide credence to the idea that gender's ability to affect academic achievement decreases when teaching strategies emphasise participation and group projects, as in the Think-Pair-Share method. Overall, it is evident that the way material is presented and the methods used to engage students can greatly impact achievement levels and help to level the playing field between genders. By fostering a collaborative and interactive learning environment, teachers can create opportunities for all students to succeed regardless of gender. This highlights the importance of incorporating diverse teaching strategies that cater to the needs and strengths of all students, ultimately promoting equal educational outcomes.

A study on the effects of cooperative and problem-solving learning strategies on biology students' academic achievement in Senior Secondary schools in Delta central senatorial district of Delta State showed that there were no appreciable gender disparities in the benefits that students at different score levels received from the instructional approach⁶. The greatest advantage was shown for high scorers, with medium and low scorers following suit. This suggests that the efficacy of instructional techniques is not dependent on specific demographic factors. These results imply that similar academic results may be attained by all students, regardless of gender, when teaching strategies are created to take into account varied learning styles. Overall, these findings highlight the importance of tailoring educational approaches to meet the diverse needs of students. By focusing on individual learning styles rather than demographic factors such as gender, educators can help all students achieve academic achievement. This study underscores the potential for inclusive teaching strategies to level the playing field and ensure equal

opportunities for all pupils to excel in their education. Ultimately, it supports the notion that effective instruction can benefit students of all backgrounds and abilities.

Additionally, a study that focused on gender and specifically looked at how students performed in cataloguing and classification courses in Anambra State's tertiary institutions revealed that the think-pair-share instructional teaching method improved students' academic achievement in these courses. Once more, the results of the think-pair-share and lecture methods showed that gender had no noticeable impact on students' overall achievement¹¹.

Crucially, there were no appreciable variations in performance according to gender or score range. This supports the claim that cooperative learning environments and student-centred teaching strategies may successfully close the achievement gap between genders and provides every student the same chance to succeed. These results suggest that implementing cooperative learning strategies, such as the TPS approach, can benefit all students, regardless of their gender or initial level of academic achievement. Teachers can help close the achievement gap and guarantee that every student has the chance to succeed by fostering a student-centred environment that encourages peer collaboration in class activities. Students will also gain confidence in their ideas through peer feedback and additional ideas from their partners¹⁴.

The results of this study, however, are in conflict with a finding from another study. The results of this earlier study, which looked at how cooperative and problem-solving teaching strategies affected the academic achievement of students in financial accounting in a few chosen secondary schools in Lagos State, showed a notable disparity between the academic achievement of male and female students in financial accounting. The study concluded that male students performed better than the female students in the financial accounting achievement test¹⁵.

Overall, the data from this research is similar in showing that the use of learner-centred, collaborative teaching approaches creates an inclusive learning environment where gender interaction does not significantly impact academic attainment. The results imply that a student's academic achievement in financial accounting is mostly determined by the efficacy of the teaching tactics used, not by gender. This is consistent with other findings showing that pedagogical techniques matter more to educational results

than demographic characteristics and that all children may succeed academically when they are involved in inclusive, successful teaching practices.

Findings from hypothesis three revealed a significant difference between the academic achievements of Business Education students in Financial Accounting taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria. This result is consistent with earlier research comparing the efficacy of traditional lecture-based instruction with active learning methodologies, namely the Think-Pair-Share (TPS) method. TPS and other cooperative learning strategies greatly improve student learning and retention by encouraging communication and critical thinking¹⁶. The interactive and captivating characteristics of the Think-Pair-Share (TPS) approach are partly responsible for the significant difference in academic achievement between students taught using the lecture method and those taught Business Education using TPS at public universities in Southwest Nigeria. The TPS approach actively incorporates students in the learning process, in contrast to typical lectures, when students listen to material without question.

Studies on active learning strategies often produce higher learning results for students than passive approaches like lectures¹⁷. Moreover, TPS improve students' academic performance and self-efficacy in Financial Accounting¹. These studies collectively support the idea that active participation through methods like TPS can create a more dynamic and effective learning environment than traditional lectures. Through peer collaboration, concept discussions, and idea sharing, this approach helps students retain and enhance their comprehension of the subject matter. Students taught using the think-pair-share strategy achieve significantly better results than those taught using conventional teaching methods¹¹.

The instant feedback that students receive during the learning process is another important element that significantly contributes to TPS's efficacy. Students may promptly clear up misunderstandings and questions in pairs or groups and get prompt assistance from classmates and the teacher. In contrast, feedback from lectures is frequently withheld until after exams. One of the main reasons for the notable accomplishment gap between the two teaching approaches is that students' learning outcomes are

improved by prompt reinforcement of accurate information and the chance to make corrections on the spot⁷.

Additionally, because students are encouraged to analyse and debate accounting problems individually, pair up with a colleague and thereafter share their findings with the general class, the TPS teaching method thus fosters critical thinking and problem-solving abilities in learners. In addition to increasing student engagement, this collaborative method fosters the higher-order thinking abilities that are necessary for completing challenging courses like financial accounting. However, this kind of engagement and critical thinking is frequently absent from the typical lecture approach, which results in less effective learning. The results of the study show that, as a result, students who are taught using the TPS teaching method typically perform better academically⁸.

The finding is corroborated by prior research, for example, a study on how students in colleges in North-eastern Nigeria performed in principles of accounting when using the jigsaw and think-pair-share methods was conducted and the results indicated that students' academic achievement in Principles of Accounts at North Eastern Nigerian Colleges of Education was significantly impacted by think-pair-share techniques and it was concluded that students who learn using the think-pair-share method are able to achieve better results¹⁸. Furthermore, students in the TPS cooperative learning paradigm are able to develop important skills such as teamwork, communication, and critical thinking, which are essential for success in both academic and professional settings. The interactive nature of TPS encourages students to actively participate in their own learning process, leading to a deeper understanding of the subject matter. Overall, the evidence suggests that implementing TPS cooperative learning techniques in educational settings can greatly benefit students and enhance their overall learning experience.

An effective cooperative learning technique that includes many essential elements to encourage active student engagement is the Think-Pair-Share model. In TPS, students are given time to think on their own by the instructor asking a question first. By encouraging students to think through their ideas independently of their peers, this individual reflection helps them to develop fresh ideas. After that, students work in pairs to debate their answers, which give them the chance to collaborate and hone their

thoughts. Lastly, in order to promote varied viewpoints and further reinforce learning, partners present their findings to the entire class¹⁶.

This practice not only fosters critical thinking and communication skills but also helps students to gain a deeper understanding of the topic through discussion and presentation. The Think-Pair-Share model creates a dynamic and interactive learning environment where students are actively engaged in the material and encouraged to participate in the learning process. By incorporating this method into classroom instruction, educators can effectively promote student collaboration, communication, and critical thinking skills.

TPS's cooperative learning approach stands in stark contrast to traditional lecture techniques, in which most students participate in discussion only in small groups. Without actively participating in the learning process, students may passively absorb knowledge in traditional settings. This passive involvement might make it more difficult for them to comprehend and remember difficult ideas, especially in a topic like financial accounting where mastery requires active effort. TPS, on the other hand, guarantees student engagement, which is critical for developing financial accounting skills. Through TPS, students are pushed to actively engage with the material through discussions, problem-solving activities, and collaborative projects. This active participation not only helps students understand complex concepts better but also allows them to retain the information for longer periods of time. By working together in a cooperative learning environment, students can support each other in developing a deeper understanding of financial accounting principles and applying them in real-world scenarios. Ultimately, TPS fosters a more interactive and dynamic learning experience that better prepares students for success in the field of financial accounting.

The finding is also buttressed the findings which emphasised that cooperative learning methodologies foster critical thinking and problem-solving abilities. Additionally, this method encourages higher-order thinking in students and serves as a channel for teacher and student feedback. Furthermore, it provides every student with the chance to express their ideas to a minimum of one other student, thereby improving their memory retention⁷.

TPS's framework fosters confidence-building and enhances communication skills by enabling students to express themselves in a safe and encouraging setting. In addition to enhancing students' comprehension of accounting principles, this cooperative method gets them ready for situations in the real world where cooperation and clear communication are crucial. Furthermore, TPS promotes an inclusive classroom where all kids are welcome to engage. This is especially crucial in diverse classes since it makes sure that each student feels appreciated and participates in the group's learning activities.

The significant difference in academic achievement between students taught using the Think-Pair-Share (TPS) technique and those taught using traditional lecture methods is further supported by a number of additional studies. The results of one of these studies show that TPS help students participate in class discussions and fosters the development and evaluation of arguments in both small and large groups, which helps students comprehend and remember key ideas. This teaching strategy also increases students' confidence in their abilities to solve critical and complex problems through class participation which improves their retention capacity¹. Think-Pair-Share strategy contributes to the improvement of problem solving and skills resolution if properly and effectively adopted by the teacher⁹.

The premise that TPS creates a more stimulating and productive learning environment supports the current study's claim that TPS raises academic accomplishment in financial accounting by encouraging active student engagement, even though Wendy's research concentrated on reading.

Furthermore, TPS instructional strategy is a member of the group of instructional strategies known as Co-operative Learning Strategy and Inquiry-Based Learning, which have an impact on students' cognitive learning abilities⁷. Their results further supported the notion that TPS is an effective teaching technique for a variety of subject areas by showing that it significantly improved students' cognitive learning outcomes.

The results are also consistent with another study's finding that was conducted on the effect of the think-pair-share technique on academic performance of students in office practice in colleges of education, Kwara state, Nigeria. The study found that the think-pair-share method improves students' academic performance and independent learning while being especially beneficial in helping

them learn skills at their own pace¹⁹. This result is especially significant because it emphasises the long-term advantages of TPS in supporting students' knowledge retention and application which is a crucial component of learning difficult courses like Financial Accounting.

From the foregoing, these studies support the current research's findings that the TPS method produces superior academic results when compared to traditional lecture-based teaching, highlighting the method's value as a cooperative learning strategy that encourages critical thinking, active engagement, and enhanced retention.

Analysis of hypothesis four shows a significant difference between the academic achievement of business education students in financial accounting taught using Problem-Solving method and those taught using Lecture methods in public Universities in Southwest, Nigeria. This could be due to the distinct nature of the two instructional strategies. By challenging students to apply theoretical information to real-world settings, the problem-solving technique promotes students critical thinking and problem-solving abilities¹². Through, peer collaboration, in-depth thinking, and experimentation with various solutions, this approach helps students gain a deeper comprehension of Financial Accounting principles. The conventional lecture approach, on the other hand, is frequently more passive, with the main goal being to impart knowledge to students without encouraging their active involvement or critical thinking²⁰. This might lead to a cursory comprehension of the material.

Additionally, the problem-solving approach is better in line with the cognitive demands of financial accounting, a topic that calls for the application of concepts to actual financial situations in addition to rote memorization⁶. By requiring students to analyse, synthesise, and evaluate information with skills essential for solving tough accounting tasks, this approach fosters higher-order thinking, group discussion and teamwork and the teacher's job is to facilitate learning, and they do so in a much more participatory and less aggressive manner²⁰.

The enhanced engagement and cognitive development facilitated by the problem-solving approach can be attributed to the notable difference in academic achievement observed between Business Education students taught using traditional lecture methods and those taught using the problem-solving method in

Financial Accounting. The value of problem-solving techniques in fostering greater comprehension and improved academic achievement in a variety of educational environments has been repeatedly demonstrated by research.

One such research examined the effect of guided discovery and problem-solving teaching methods on the academic achievement of students studying financial accounting at North Central Nigeria's Colleges of Education. The study had four specific purposes, four research questions and four null hypotheses were formulated to guide the study. The study used quasi-experimental research design. The population of the study was 8,923 Business Education students in Colleges of Education, North Central, Nigeria. Purposive sampling technique was used to select 789 NCE II students as respondents in the study. A researcher self-developed Financial Accounting Achievement Test (FAAT) was used in collecting data for the study. The study found that students' academic performance improved when they engaged in guided exploration and problem-solving sessions because they were exposed to a higher standard of reasoning that they acknowledged as valid while the control group where the lecture method was employed produced a lower achievement level¹⁰. This research emphasises how valuable interactive, student-centred teaching strategies like problem-solving are for raising academic achievement. It was recommended by the study that in order to enhance learning outcomes, policymakers should encourage financial accounting lecturers, especially those in universities, to employ problem-solving techniques.

A further investigation carried out in Rivers State emphasised the usefulness of the problem-solving approach in the instruction of financial accounting. To evaluate the effect of problem-solving teaching strategies on students' financial accounting learning at Rivers State University and Ignatia Ajuru University of Education, the researchers used a survey design. The results showed that although the problem-solving approach is very successful, professors did not always use it, which had a detrimental influence on students' educational experiences. According to the report, Rivers State's educational officials should create curriculum that emphasises the problem-solving technique and make sure lecturers have the necessary training and assistance to use it to improve the teaching and learning process¹².

Similar to this current study, a quasi-experimental study carried out in Anambra State examined the effects of problem-solving and jigsaw puzzle learning styles on the academic performance of Business Education students in Financial Accounting. The population of the study was 719 business education students in universities in Anambra State and the sample size was 123 business education students drawn from 2 universities. Financial Accounting Achievement Test (FAAT) developed by the researcher using 300L past questions between 2020-2022 was used as research instrument. FAAT was administered to business education students in both experimental and control groups. Mean was used to answer the research questions while analysis of covariance (ANCOVA) was used to test the hypotheses. The findings showed that these interactive learning strategies significantly enhanced students' academic performance, which is consistent with the findings of the current study. The previous researchers suggested that in order to improve students' academic performance in skill-based topics like financial accounting, business education professors at universities should explicitly embrace problem-solving and puzzle-based teaching approaches²¹.

Another study looked at the effect of cooperative and problem-based learning on secondary school students' interest in financial accounting in Akoko-Edo, Edo State. According to the study, these techniques raised students' interest in the subject matter in addition to helping them do better academically²². The study findings are in line with this current study findings which supports the adoption of these interactive teaching methodologies. Furthermore, Tunisian research that compared problem-solving techniques with conventional teaching strategies in physical education classes discovered that the former greatly improved students' enthusiasm and motor abilities. This study further supports the adaptability and effectiveness of this teaching strategy by showing that problem-solving techniques work in both academic disciplines like financial accounting and physical education. The previous study's findings revealed that problem-solving approach is an effective way to improve students' cognitive and motor skills, which makes it a useful tool for teachers in many subject areas²³. This is also on consonant with the result of this present study.

All of these researches support the current conclusion that using problem-solving techniques greatly improves academic attainment, particularly in challenging disciplines like financial accounting where higher-order thinking and critical thinking are crucial. When opposed to traditional lecture-based techniques, the interactive and student-centred character of problem-solving teaching methods promotes a deeper knowledge of the topic and leads to superior academic achievements. This approach also better prepares students for real-world problem-solving situations.

The fifth hypothesis's analysis reveals a significant difference between the academic achievement scores of students taught financial accounting in public universities in Southwest Nigeria using the Think-Pair-Share, Problem-Solving, and Lecture methods before and after the test. This suggests that the teaching strategies employed were successful in improving student learning because the post-test results reported a notable improvement over the pre-test results. The results suggest that incorporating a variety of teaching strategies can lead to better academic outcomes for students in higher education. This study highlights the importance of using diverse instructional techniques to cater to the individual learning needs of students in order to promote academic achievement¹⁵. This, however, contradicts a prior finding that found no statistically significant difference in the mean achievement scores of male and female Business Education students who were taught financial accounting using problem-solving techniques before and after the test²⁴. The difference in finding might be as a result of the educational level in which the study was been conducted.

The results of this study highlight how important it is for instructors to be flexible and willing to use a variety of teaching strategies in order to engage students and help them comprehend the course material. By incorporating a mix of think-pair-share, problem-solving, and lecture methods, educators can create a dynamic and interactive classroom setting that promotes students' critical thinking and active engagement. Furthermore, the positive correlation between the use of diverse instructional strategies and improved student performance emphasises the need for continuous professional development and training for faculty members to enhance their teaching skills and effectiveness.

Overall, this research contributes to the on-going dialogue on best practices in higher education pedagogy and underscores the importance of implementing innovative and student-centred teaching methods in public universities in Southwest Nigeria.

The findings of this study could be due to the fact that students have different learning styles and preferences that benefit from a variety of teaching approaches. Also, students may be more engaged and motivated when they see their own learning needs being met in different ways. Additionally, students may have different levels of prior knowledge and background experiences that can impact their ability to learn new material²¹. Furthermore, it is important for educators to be aware of these differences and adapt their teaching methods accordingly. However, a detailed counter example to the findings of this study was seen in a study conducted at a public university in Southwest Nigeria where students consistently performed better in subjects taught using traditional lecture-based methods compared to more interactive and student-centred approaches²¹. This suggests that there may be cultural or institutional factors at play that influence the effectiveness of different teaching methods, rather than just individual learning styles. Additionally, the level of prior knowledge and background experiences of students may not always be the determining factor in their academic performance, as some students may excel in subjects where they have little prior knowledge²².

The results of this study highlight how students' academic achievement improves when taught utilising cooperative and interactive teaching methods, notably the Think-Pair-Share (TPS) and problem-solving approaches in contrast to traditional lecture technique. Think-Pair-Share (TPS) and problem-solving approaches improves students' critical thinking abilities and it also support and encourage students to work together, thereby increasing students' ability to retain memory²⁴. This suggests that students who actively participate in cooperative learning experiences typically achieve higher academic standards²⁵. The TPS approach encourages better comprehension and retention of topics in students by giving them the chance to think critically and discuss their ideas with others. This can result in higher academic performance.

Cooperative learning environment is essential for academic achievement because it fosters students' understanding of difficult ideas and their ability to solve problems. Traditional lecture techniques, on the other hand, frequently restrict student participation and interaction, which can impede the growth of critical thinking and problem-solving skills. Because of this, switching from traditional teaching techniques to more participatory ones like problem-solving and TPS not only improve students' academic achievement but also equips them with the necessary skills and knowledge for future academic problems.

Lead City University Ibadan DO NOT COPY

Endnotes

1. F. C. Nwaukwa & C. C. Okolocha, *Effect of think-pair-share instructional strategy on students' academic achievement and self-efficacy in financial accounting in Abia State*, **International Journal of Recent Innovations in Academic**, 4 (1), 2020, 37-48.

2. A. U. Okeke & H. Alichu, *Effect of cooperative learning strategy on students' academic achievement and interest in financial accounting in Abia State*, **NAU Journal of Technology & Vocational Education**, 7 (1), 2022, 57-65, <http://www.naujtved.com.ng/>
3. H. Wu, S. Bai, Y. Liao, & C. Tan, *The academic performance and upward mobility of students in education program*, **Journal of World Englishes and Educational Practices**, 6 (2), 2024 137-145. <https://doi.org/10.32996/jweep>.
4. L. Lorenzetti, M. Jacobsen, D. L. Lorenzetti, L. Nowell, H. Pethrick, T. Clancy, G. Freeman & O. E. Paolucci, *Fostering learning and reciprocity in interdisciplinary research*, **Small Group Research**, 53 (5), 2022, 755-777. <https://doi.org/10.1177/10464964221089836>.
5. J. J. Cooper & K. Ozansoy, *The impacts of strategies in teaching on students' performance in school*, *Near East University*, **Journal of Education Faculty (NEUJE)** 5 (2), 2022, 12-18
6. O. D. Okagbare, *Effects of cooperative learning and problem-solving strategies on biology students' academic achievement in Delta Central Senatorial District*, **Rivers State University Journal of Education (RSUJOE)**, 25 (1), 2022, 137-145 <url:www.rsujoe.com.ng>
7. S. Ganatra, T. Doblanko, K. Rasmussen, J. Green, M. Kebbe, M. Aminn & A. Perez, *Perceived effectiveness and applicability of think-pair-share including storytelling (TPS-S) to enhance clinical learning*, **Teaching and Learning in Medicine**, 33 (2), 2021, 184-195.
8. F. Gulnaz, *Fostering Saudi EFL learners' communicative, collaborative and critical thinking skills through the technique of in-class debate*, **International Journal of English Linguistics**, 10 (5), 2020, 265-282
9. T. O. Abiodun, A. A. Asanre, M. A. Ogundeji, T. A. Odupe & M. G. Rasaki, *Effect of think-pair-share strategy on student achievement in senior secondary school mathematics*, **FNAS Journal of Mathematics and Science Education**, 3 (2), 2022, 20-25
10. S. David, *Effects of guided-discovery and problem-solving teaching methods on students' academic performance in Financial Accounting in colleges of education, North Central, Nigeria*, A PhD Thesis Submitted to Department of Business and Entrepreneurship Education, College of Education, Kwara State University, Malete, December, 2019, Available online <https://www.researchgate.net/publication/364024967>
11. A. I. Ndanwu, V. O. Ezejiolor & R. O. Esimone, *Think-pair-share instructional method: A pedagogical tool for enhancing students' academic achievement in cataloguing and classification*, **Tropical Journal of Education**, 4 (1/2), 2022, 1 – 9, <http://doi.org/10.47524/tje.v4i1.2>
12. E. A. Amadi, P. C. Ogwunte & N. Aruchi, *Effects of problem-solving teaching method on the teaching and learning of financial accounting education in Rivers State Universities*, **International Journal of Innovative Education Research**, 9 (2), 2021, 123-131.
13. E. Bizimana, D. Mutangana & A. Mwesigye, *Enhancing students' attitude towards biology using concept mapping and cooperative mastery learning instructional strategies: Implication on gender*, **International Journal on Math, Science and Technology Education LUMAT General Issue**, 10 (1), 2022, 242–266

14. L. Mundelsee & S. Jurkowski, *Think and pair before share: Effects of collaboration on students' in-class participation*, **Learning and Individual Differences**, 88, 2021, 1-35, <https://www.sciencedirect.com/science/article/pii/S1041608021000522>
15. J. Caulfield, *How to design and teach a hybrid course: Achieving student-centered learning through blended classroom, online and experiential activities* **Routledge: New York**, 2023.
16. W. D. Johnson & T. R. Johnson, *Cooperative learning: the foundation for active learning*, Edited by Sílvia Manuel Brito, **IntechOpen**, 1-162, 2019, doi: 10.5772/intechopen.81086
17. E. P. Ugwunwoti, *Effect of cooperative teaching method on senior secondary school students' achievement and retention in financial accounting in Enugu State*, **Journal of Education and Practice**, 12 (27), 2021, 106-115.
18. E. A. Agbede & A. A. Ba'aba, *Effects of jigsaw and think-pair-share methods on students' academic performance in accounting in colleges of education in North-East Nigeria*, **International Journal of Innovative Social & Science Education Research**, 7(2), 2019, 119-132
19. L. F. Ademiluyi & A. A. Fawale, *Effect of think-pair-share technique on academic performance of office practice students in colleges of education Kwara state*, **Journal of Education in Black Sea Region**, 8 (1), 2022, 7- 13.
20. G. Ezeddine, N. Souissi, L. Masmoudi, K. Trabelsi, L. Puce, C. C.T. Clark, N. L. Bragazzi & M. Mrayah, *The problem-solving method: efficacy for learning and motivation in the field of physical education*, **Front. Psychol.**, 13, 2023, 1-10
21. V. N. Okeke, *Effect of problem-solving and jigsaw teaching techniques on academic achievement of business education students in financial accounting in Universities in Anambra State, Nigeria*, **European Journal of Science, Innovation and Technology**, 3 (2) 2023, 61-74.
22. H. Jibrin, Y. L. Olowodun, B. Mohammed, & A. L. Zanwa, *Effects of cooperative and problem-based learning methods on secondary school students interest in financial accounting in Akoko-Edo, Edo State, Nigeria*, **AAU Journal of Business Educators**, 4 (1), 2024, 414-422. <http://www.aaujbe.com.ng/>
23. N. N. Norboev, *Theoretical aspects of the influence of motivation on increasing the efficiency of physical education*, **Curr. Res. J. Pedagog.**, 2, 2021, 247–252.
24. N. A. Ishola, S. A. Gatta & B. M. A. Mohammed-Oladunni, *Effects of cooperative and problem-solving methods on students' academic performance in Financial Accounting in selected secondary schools in Lagos State*, **Nigerian Online Journal of Educational Sciences and Technology (NOJEST)**, 4 (1), 2022, 205-217
25. Mutia, *The effectiveness of using think-write-pair-share technique in teaching writing*, **Professional Journal of English Education**, 4 (2), 2021, 297-302, <http://dx.doi.org/10.22460/project.v4i2.p297-302>

Lead City University Ibadan DO NOT COPY

Chapter Five

Conclusion

This chapter focused on the summary of findings, conclusion and provides valuable recommendations based on the findings of the study, highlights contributions to existing knowledge, and proposed potential avenues for future research within related area.

5.1 Summary of Findings

The study examined the effects of Think-Pair-Share and Problem-Solving teaching methods on academic achievement in Financial Accounting among Business Education students in Public Universities, Southwest, Nigeria. Following the objectives of the study, five research questions were raised and five null hypotheses were formulated and tested at 0.05 significance level. Substantial number of literatures on corporative and innovative teaching strategies such think-pair-share and problem solving were reviewed in the study. The theoretical framework of the study was anchored on theory of educational productivity, social interdependence theory and Gestalt theory of problem-solving. In addition, this study adopted a quasi-experimental design. The population of the study comprised 1,253, two hundred level Business Education students in all the 11 Federal and State universities in the six Southwest states in Nigeria with a sample of 423 (intact class), 200 Level Business Education students from three universities that were randomly selected (two States and one Federal university). However, the actual sample used for the analysis was 384 with 108 males and 276 females. Descriptive and inferential statistics were used to analyse the data gathered.

Following is the summary of the findings:

1. There was a significant combined effect of Think-Pair-Share teaching, Problem-Solving and Lecture teaching methods on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria. This was confirmed after One-Way Analysis of Variance (ANOVA) was carried out and the result shows that there was a significant combine effect $F(2, 382) = 73.470, \text{prob.} < 0.05$) of Think-Pair-Share teaching, Problem-Solving and Lecture teaching methods on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria (The result shows a significant difference in the mean).
2. There was no significant interaction effect of the use of Think-Pair-Share, Problem-Solving, Lecture teaching methods and gender on Business Education students' academic achievement in Financial Accounting in public Universities in Southwest, Nigeria. This was established after

Two-Way Analysis of Variance (ANOVA) was carried out and the results shows that ($F_{(2, 378)} = 1.570, p = .209$).

3. There was a significant difference between the academic achievement of business education students in financial accounting taught using the Think Pair-Share method and those taught using the lecture method in public universities in southwest Nigeria. This was confirmed after dependent t test (paired sample t test) analysis was carried out and the results shows that $t = 5.520, df = 78, P < 0.05$).
4. There was a significant difference between the academic achievement of business education students in financial accounting taught using Problem-Solving method and those taught using Lecture method in public Universities in Southwest, Nigeria. This was confirmed after dependent t test (paired sample t test) analysis was carried out and the results shows that ($t = 11.405, df = 109, P \leq 0.05$).
5. There was a significance difference between the pre-test and post-test academic achievement scores of students taught Financial Accounting using Think-Pair-Share, Problem-Solving and Lecture methods in public Universities in Southwest, Nigeria. This was established after a dependent t test (paired sample t test) was carried out and the results shows that ($t = -7.659, df = 383, Prob < 0.05$).

5.2 Conclusion

The overall conclusion from this study which examined the effects of Think-Pair-Share and Problem-Solving teaching methods on academic achievement in Financial Accounting of Business Education students in Public Universities, Southwest, Nigeria, demonstrated the significant impact that interactive teaching methods like Think-Pair-Share (TPS) and problem-solving have on Business Education students' academic achievement in Financial Accounting at public universities in Southwest Nigeria. The study also reveals a noteworthy difference in academic achievement between students taught using TPS and problem-solving techniques and those taught through traditional lecture technique, highlighting the

effectiveness of these methods in improving student learning outcomes. These findings suggest that student-centred teaching approach enhances understanding and retention of complex financial accounting concepts while also fostering critical thinking and problem-solving abilities that are necessary for success in the classroom.

The study also shows that TPS, problem-solving and lecture methods have a substantial combined influence on students' academic progress, suggesting that combining different teaching methods will enhance learning results even more. This result lends credence to the idea that a blended learning strategy, which capitalises on the advantages of several teaching modalities, will accommodate a range of learning requirements and styles while ultimately improving student performance. The noteworthy enhancement in post-test results relative to pre-test scores for students who were exposed to these techniques confirms the effectiveness of interactive teaching strategies in enhancing students' understanding and utilisation of Financial Accounting concepts.

However, the absence of a significant interaction effect between the teaching methods and gender on students' academic achievement suggests that the benefits of TPS, problem-solving, and lecture methods are consistent across genders. This finding implies that these teaching methods are universally effective, providing equal academic advantages to both male and female students. Therefore, educators and curriculum designers should consider incorporating these interactive methods into teaching practices to enhance academic outcomes for all students, irrespective of gender. Overall, the study highlights the importance of adopting innovative and interactive teaching methods to improve the quality of education in financial accounting and other business-related courses.

By promoting engagement and active participation in the learning process, educators can create a more inclusive and dynamic classroom environment that caters to the diverse needs of students. Additionally, incorporating interactive teaching methods can help students develop critical thinking skills, problem-solving abilities, and communication proficiency, all of which are essential for success in the field of financial accounting thereby enhance students' motivation and interest in the subject matter, ultimately leading to improved academic performance and long-term success in their careers..

5.3 Recommendations

Based on the study's findings, the following recommendations were made:

1. Teachers should be well trained on the use of Interactive Teaching Methods: Teachers should undergo thorough training on how to apply Think-Pair-Share (TPS) and Problem-Solving techniques in the classroom if they are to fully reap the benefits of these teaching tactics. Programmes for professional development should be created to provide teachers the abilities and information they need to employ these techniques with assurance and creativity.
2. Incorporate Think-Pair-Share (TPS) and problem-solving methods into the curriculum: Given the significant positive impact of these teaching methods on students' academic achievement, Universities should include TPS and problem-solving techniques into the financial accounting curriculum because of the noteworthy advantages these teaching methods have on students' academic performance.
3. Adopt a Blended Teaching Approach: The results of the study indicate that combining a combination of lecture, problem-solving, and TPS techniques improves student performance compared to using only one technique. Therefore, in order to accommodate various learning styles and improve overall student engagement and performance, lecturers should implement a mixed strategy that incorporates these methods.
4. Promote Gender-Inclusive Teaching Practices: Teachers should keep using these strategies consistently to make sure that male and female students gain the same benefits, as the study did not find a significant interaction impact between the teaching approaches and gender. Maintaining a gender-neutral learning environment with equal possibilities for success for all students should be a priority.
5. Frequent Evaluation and Feedback: To optimise the efficiency of TPS and problem-solving techniques, evaluations should be carried out on a frequent basis to track students' development

and give prompt feedback. Students will be able to pinpoint their areas of weakness and strengthen their comprehension of financial accounting principles through this.

5.4 Contributions to Knowledge

This study contributes significantly to the body of knowledge by providing empirical evidence that Think-Pair-Share (TPS) and problem-solving teaching methods are more effective than traditional lecture methods in improving the academic achievement of Business Education students in Financial Accounting. It demonstrates how these teaching methods work well when combined, indicating that meeting a variety of learning demands through a blended learning strategy may maximise student achievement.

Furthermore, by demonstrating that there is no significant interaction effect between gender and instructional methods, the research contradicts preconceived notions about how differently genders respond to certain types of instructional methods. This result demonstrates how TPS and problem-solving methods are applicable to a wide range of student demographics.

Also, the study contributed to the body of knowledge by developing conceptual model that can be adopted by other researchers in similar study.

Lastly, the study emphasises how using active teaching methods significantly improves students' academic achievement, highlighting the necessity of on-going innovation in teaching methodologies to improve educational results. Ultimately, the goal is to provide students with the most effective and engaging learning experiences possible.

5.5 Suggested Areas for Further Research

Further studies can be done in the following areas:

- 1. The Effect of Think-Pair-Share and Problem-Solving Teaching Methods on the Retention of Financial Accounting Concepts Among Business Education Students.**

This study compares interactive teaching methods with traditional lecture methods to see how these affect students' long-term retention and recall of important financial accounting concepts.

2. Evaluating the Impact of Interactive Teaching Methods on the Cognitive Development of Business Education Students: A Focus on Financial Accounting.

In order to better understand how students' cognitive abilities, such as their capacity for critical thought and problem-solving, are impacted by Think-Pair-Share and Problem-Solving approaches, this study may investigate this relationship.

However, based on the research design adopted in this study, further study could be carried out using a descriptive research design. Also, this study was conducted in Southwest, Nigeria; other studies could be conducted in other geographical regions in the country. The instrument adopted for data collection was an achievement test but further research work that adopts a descriptive research design could use questionnaire or interview as instrument for data collection. In terms of the study population and educational level, further research could make use of a larger population and sample size at a lower educational level while adopting a descriptive research design

Bibliography

Chapters in Book

Johnson, D. W. & Johnson, R. T., *Cooperative learning: The foundation for active learning*, Brito, S. M. (Ed.), **Intech Open**. 2019, 1-162, doi: 10.5772/intechopen.81086

Lim, T. *Problem-based learning: benefits, challenges, and the way forward*, Cambodia Heng K., Sol K., Kaing S., & Em S. (Eds.), *Innovations and challenges in Cambodian education: Youth's*, Cambodian Education Forum Phnom Penh, 2023, 21-36, <https://cefcambodia.com/books/>

Journals

Abd Algani Y. M. & Abu Y. F., *The effect of the cooperative learning method on students' academic achievement in Mathematics*, **Multicultural Education** 7 (3), 2021, 329-339

Abiodun, T.O., Asanre, A. A., Ogundeji, M.A., Odupe, T. A & Rasaki, M. G. *Effect of think-pair-share strategy on student achievement in senior secondary school mathematics*, **FNAS Journal of Mathematics and Science Education**, 3 (2), 2022, 20-25

Abraham-Ibe I. G., *Business education skills: imperative for job opportunities and sustainability of graduates in Nigeria*, **African Scholar Journal of African Sustainable Development (JASD-2)**, 23 (2), 2021, 56-68.

Adejola B. C., Amaewhule A. W. & Akpomi M. E., *Evaluation of entrepreneurial competences among undergraduate business education students exposed to practical entrepreneurship learning activities in Rivers State University, Port Harcourt*, **Journal of Business and Entrepreneurship Education (JOBEE)**, 2(1), 2023, 30-38, <https://jbee.rsu.edu.ng/index.php/j/article/view/4/13>

Ademiluyi L. F. & Fawale A. A., *Effect of think-pair-share technique on academic performance of office practice students in colleges of education Kwara State*, **Journal of Education in Black Sea Region**, 8 (1), 2022, 7-1 <https://kwasuspace.kwasu.edu.ng/bitstreams/86ba02b5-17f7-4289-9aff-7c5c367459bb/download>

Adesope A. O., *The role of education on national development*, **International Journal of Research in Education and Sustainable Development** 1 (10), 2021, 74-80.

Agbede, E. A., & Ba'aba, A. A. *Effects of jigsaw and think-pair-share methods on students' academic performance in accounting in colleges of education in North-East Nigeria*,

International Journal of Innovative Social & Science Education Research, 7 (2), 2019, 119-132

- Ahmed, S. K., *How to choose a sampling technique and determine sample size for research: A simplified guide for researchers*, **Oral Oncology Reports**, 12, 2024, 1-7 <https://doi.org/10.1016/j.oor.2024.100662>.
- Al-Bayati A. H. & Mizban A. J., *The effectiveness of brainstorming in the achievement of fourth-grade students in science*, **Journal of Positive School Psychology**, 6 (5), 2022, 1506 – 1520, <http://journalppw.com>
- Ajimotokan H. A., Ambali R. M., Rabiun A. B., Ogedengbe T. S., Ibrahim H. K. & Yusuf M. O., *Development and evaluation of an interactive instructional package for teaching engineering graphics skills*, **FUOYE Journal of Engineering and Technology**, 7(2), 2022, 40-43
- Alghamdi A. H., *Factors affecting teaching methods among academicians in Albaha University, Saudi Arabia*, **Egyptian Journal of Educational Sciences** 2 (Part One) 2022, 13-36, https://ejes.journals.ekb.eg/article_260293_b457128abb777d124c087247d638851e.pdf
- Amadi E. A., Ogwunte P. C. & Aruchi N., *Effects of problem-solving teaching method on the teaching and learning of financial accounting education in Rivers State Universities*, **International Journal of Innovative Education Research**, 9 (2), 2021, 123-131.
- Amaewhule W. A. & Yellowe T. I., *Instructional Innovations Adopted by Accounting Teachers for Improved Learning among Secondary School Students in Rivers State*, **International Journal of Innovative Education Research**, 9(4), 2021, 12-20. www.seahipaj.org
- Aribisala O. O. & Abolore A. R., *Assessment of teachers content knowledge and its effect on teaching financial accounting in some selected secondary senior schools in Lagos State*, **Jurnal Multidisiplin Madani (MUDIMA)**, 3 (5), 2023, 1088-1093. DOI: <https://doi.org/10.55927/mudima.v3i5.3311>
- Aruchi N., Thomas B. & Adiola U. S., *Inadequate instructional facilities as a detriment to academic performance of business education students in Rivers State University*, **International Journal of Social Sciences and Management Studies**, 2(3), 2023, 1-10, <https://rajournals.net/index.php/ijssms/article/view/151/148>
- Awodun A. O., *Effects of problem-solving teaching strategy on secondary school students' academic achievement in physics*, **European Modern Studies Journal**, 4 (4), 2020, 55-64
- Ayo-Sobowale S. M. O. & Oyeyemi K., *Effects of cooperative learning and lecture strategies on students' academic achievement in financial accounting of business education programme in universities, Southwest, Nigeria*, **International Journal of Research in Humanities and Social Studies**, 10 (2), 2023, 36-41. DOI: <https://doi.org/10.22259/2394-6296.1002005>

- Bestiantono D. S., Agustina P. Z. R. & Cheng T. H., *How students' perspectives about online learning amid the covid-19 pandemic?* **Studies in Learning and Teaching**, 1(3), 2020, 133-139
- Bizimana E., Mutangana D. & Mwesigye A., *Enhancing students' attitude towards biology using concept mapping and cooperative mastery learning instructional strategies: Implication on gender*, **International Journal on Math, Science and Technology Education LUMAT General Issue**, 10 (1), 2022, 242–266
- Boris O. O., *Effects of problem-solving teaching strategy on secondary school students' academic performance in chemistry in Ondo State, Nigeria*, **International Journal of Research and Analytical Reviews**, 7 (2) 2020,74-80 <http://ijrar.com/>
- Bupo G. O. & Ibeneme O. T., *Effect of blended learning approach on business education students' academic achievement in financial accounting in universities in Rivers State, Nigeria*, **Journal of the Nigerian Academy of Education**, 16 (1), 2021, 64-77.
- Cano-García E. & Rojas-Cazaluade Ó., *Increase in academic performance due to the Application of cooperative learning strategies: A case in construction engineering*, **Journal of Technology and Science Education**, 12 (3), 2022, 578-595.
- Chileya M. E., & Shumba O., *The impact of problem based learning on learners' academic achievement in chromatography and science learning activation*, **International Journal of Research and Innovation in Social Science (IJRISS)**, IV (IX), 2020, 778-785.
- Cooper, J. J. & Ozansoy, K., *The impacts of strategies in teaching on students' performance in school*, **Near East University Journal of Education Faculty (NEUJE)**, 5 (2), 2022, 12-18
- Costa J. M., Miranda G. L. & Melo M., *Four-component instructional design (4C/ID) model: a meta-analysis on use and effect*, **Learning Environ Res** 25, 2022, 445–463. <https://doi.org/10.1007/s10984-021-09373-y>
- David S., Ore E. R. & Sofolahan, V., *Entrepreneurial skills of Business Education graduates: a catalyst for sustainable development in Nigeria*, **International Journal of Office Administration and Information Management (IJOAIM)**, 3 (1), 2023, 295-305
- Duncker K., *On problem solving*, **Psychological Monographs**, 58 (5), 1945, 1-113
- Enwere J. O. & Ikeanyionwu C. L., *Relative effectiveness of just-in-time teaching and peer instructional strategies on students' achievement in financial accounting in colleges of education*, **Nnadiabube Journal of Education in Africa (NJEA)**, 7 (1), 2022, 9-17 <https://acjoi.org/index.php/njea/article/download/2905/2880>
- Enwere J. O., Ikeanyiowu C. L. & Goddy-Mkpa P. C., *Effect of flipped classroom teaching on the achievement of male and female financial accounting students in secondary schools*,

Unizik Journal Nnadiabube Journal of Education in Africa (NJEA), 7 (1), 2022 , 210-221 <https://unijerps.org/>

- Ezeddine G., Souissi N., Masmoudi L., Trabelsi K., Puce L., Clark C. C. T., Bragazzi N. L. & Mrayah M., *The problem-solving method: Efficacy for learning and motivation in the field of physical education*, **Front. Psychol.** 13, 2023 1-10.
- Ezenwafor J. I., Aduhuekwe F. I. & Akamobi O. G., *Strategies considered effective for teaching technology education courses in tertiary institutions in Anambra State*, **International Journal of Innovative Social & Science Education Research**, 9 (3), 2021, 27-35.
- Ganatra S, Doblanko T, Rasmussen K, Green J, Kebbe M, Amin M, Perez A. *Perceived effectiveness and applicability of think-pair-share including storytelling (tps-s) to enhance clinical learning*. **Teach Learn Med.** 33 (2), 2021, 184-195. doi: 10.1080/10401334.2020.1811094.
- Gomez-del Rio T., & Rodriguez J., *Design and assessment of a project-based learning in a laboratory for integrating knowledge and improving engineering design skills*, **Education for Chemical Engineers**, 40, 2022, 17-28, <https://doi.org/10.1016/j.ece.2022.04.002>.
- Gulna F., "Fostering Saudi EFL learners' communicative, collaborative and critical thinking skills through the technique of in-class debate." **International Journal of English Linguistics** 10 (5), 2020, 265-283
- Hong W., Shan B., Yuanzhi L. & Chunhua T., *The academic performance and upward mobility of students in education program*, **Journal of World Englishes and Educational Practices**, 6 (1), 2024, 137-166 Journal Homepage: www.al-kindipublisher.com/index.php/jweep
- Iheanyichukwu T., Sotonade O. A. T. & Omonuwa E. F., *Effect of the Cooperative Learning Strategy on Study Habit of Senior Secondary School Students in Ogun State, Nigeria*, **East African Journal of Education and Social Sciences EAJESS**, 3 (3), 2022, 153-159.
- Ishola N. A., Gatta S. A. & Mohammed-Oladunni B. M. A., *Effects of cooperative and problem-solving methods on students' academic performance in Financial Accounting in selected secondary schools in Lagos State*, **Nigerian Online Journal of Educational Sciences and Technology (NOJEST)**, 4 (1), 2022, 205-217
- Iyagba P. W., *Learning and problem solving: the use of problem solving method to achieve learning in pupils*, **African Social and Educational Journal Faculty of Business Administration Imo State University, Nigeria**, 9 (3), 2020, 239-250
- Iyamuremye E., Ndayambaje I. & C. Muwonge M., *Influence of teaching approaches on students' performance in mathematics: a meta-analysis of quasi-experimental studies in Africa*, **African Journal of Educational Studies in Mathematics and Sciences**, 17 (2), 2021, 73-94. <https://www.ajol.info/index.php/ajesms/article/view/222933/210293>

- Jibrin H., Olowodun Y. L., Mohammed B. & Zanwa A. L., *Effects of cooperative and problem-based learning methods on secondary school students interest in financial accounting in Akoko-Edo, Edo State, Nigeria*, **AAU Journal of Business Educators**, 4(1), 2024, 414-422. <http://www.aaujbe.com.ng/>
- Johnson D. W. & Johnson R. T., *An educational psychology success story: Social interdependence theory and cooperative learning*, **Educational researcher**, 38 (5), 2009, 365-379
- Keramati M. R. & R. Gillies M., *Advantages and Challenges of Cooperative Learning in Two Different Cultures*. *Educ. Sci.* 12 (3), 2022, 1-14. <https://doi.org/10.3390/educsci12010003>
- Leiva-Reyes K. A., Gutiérrez-Jiménez A. E., Vásquez-Rojas C. P., Chávez-Lezama S. E. & Reynosa-Navarro E., *Aprendizaje colaborativo en línea y aprendizaje autónomo en la educación a distance*, **Revista Científica, Cultura, Comunicación y Desarrollo**, 5(3), 2020, 95-100.
- Leonardi J. P., *Using reciprocal teaching method to improve female students' reading comprehension achievement at SMA Negeri Tujuh Prabumulih*, **Holistics Journal**, 13 (1), 2021, 57-97.
- Letina A., Vasilj M., *Challenges of implementation of cooperative learning in Initial Teacher Education*, **Šk. Vjesnik**, 70 (1), 2021, 369–395, <https://hrcak.srce.hr/file/383947>
- Lorenzetti, L., Jacobsen, M., Lorenzetti, D. L., Nowell, L., Pethrick, H., Clancy, T., Freeman, G. & Paolucci, O. E., *Fostering learning and reciprocity in interdisciplinary research*, **Small Group Research**, 53 (5), 2022, 755-777. <https://doi.org/10.1177/10464964221089836>.
- Mafruudloh, N., Sholikhah, N. M. & Fitriati, R., *Blended learning effectiveness: a quasi-experimental study on students' ESP achievement*, **Edulangue**, 5 (2), 2022, 216-231
- Maina J. J. & Zakari A. T., *Academic achievement predictors for architecture students at kano university of science and technology, Wudil, Kano State*, **Bayero Journal of Pure and Applied Sciences**, 13 (2), 2020, 125 – 133, <http://dx.doi.org/10.4314/bajopas.v13i2.1>
- Mendo-Lázaro S., León-Del-Barco B., Polo-Del-Río M. I. & López-Ramos V.M., *The impact of cooperative learning on university students' academic goals*, **Frontiers in Psychology**, 5 (12), 2022, 1-7. <https://doi.org/10.3389/fpsyg.2021.787210>
- Mundelsee L. & Jurkowski S., *Think and pair before share: Effects of collaboration on students' in-class participation*, **Learning and Individual Differences** 88, 2021, 1-35, <https://www.sciencedirect.com/science/article/pii/S1041608021000522>

- Mutia, *The effectiveness of using think-write-pair-share technique in teaching writing*, **Professional Journal of English Education**, 4 (2), 2021, 297-302, <http://dx.doi.org/10.22460/project.v4i2.p297-302>
- Muraina K. O. & Oladimeji L. O., *Internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria*, **International Journal on Education Insight (IJEI)**, 3(1), 2022, 9-18.
- Ndanwu A. I., Ezejiofor V. O. & Esimone R. O., *Think-pair-share instructional method: A pedagogical tool for enhancing students' academic achievement in cataloguing and classification*, **Tropical Journal of Education**, 4 (1/2), 2022, 1 – 9, <http://doi.org/10.47524/tje.v4i1.2>
- Norboev N. N., *Theoretical aspects of the influence of motivation on increasing the efficiency of physical education*, **Curr. Res. J. Pedagog.** 2, 2021, 247–252.
- Nwagwu I. N., Ofulue J. I. & Acharu F. T., *Improving business educators' usage of synchronous interactive resources for teaching and learning Business Education programmes in tertiary institutions in Ebonyi State in post covid-19 era*, **Nigerian Journal of Business Education (NIGJBED)**, 9(2), 2022, 22-29.
- Nwaukwa F. C. & Okolocha C. C., *Effect of think-pair-share instructional strategy on students' academic achievement and self-efficacy in financial accounting in Abia State*, **International Journal of Recent Innovations in Academic**, 4 (1), 2020, 37-48.
- Obasi H. O., *Effect of cooperative learning strategy on students' academic achievement in economics in public secondary schools in Imo State, South Eastern, Nigeria*, **Journal of Research and Sustainable Development**, 7 (2), 2022, 20-40.
- Ogbonnaya E. A. *Education as a key to national development in Nigeria*, **International Journal of Research and Innovation in Social Science (IJRISS)**, IV (VIII), 2020, 796-803.
- Ogunleye A. T., Onifade O., Obadipe A. J. & Hamidu M., *Effect of think pair share and group investigation cooperative learning strategies on students' performance in biology in Ekiti State Nigeria*, **AJSTME**, 7 (1), 2021, 60-66, <https://www.ajstme.com.ng>
- Okafor C. F. & Nzomiwu C. C., *Effect of think-pair-share instructional strategy on secondary school students' academic achievement in algebra*, **COOU Journal of Science Education and Allied Discipline**, 3 (1), 2021, 146 – 156; <http://www.josead.com/index.php/JOSEAD/article/view/15/15>
- Okagbare, O. D., *Effects of cooperative learning and problem-solving strategies on biology students' academic achievement in Delta Central Senatorial District*, **Rivers State University Journal of Education (RSUJOE)**, 25 (1), 2022, 137-145 <url:www.rsujoe.com.ng>

- Okeke A. U. & Alichu H., *Effect of cooperative learning strategy on students' academic achievement and interest in financial accounting in Abia State*, **NAU Journal of Technology & Vocational Education**, 7 (1), 2022, 57-65, <http://www.naujtved.com.ng/>
- Okeke V. N., *Effect of problem-solving and jigsaw teaching techniques on academic achievement of business education students in financial accounting in Universities in Anambra State, Nigeria*, **European Journal of Science, Innovation and Technology**, 3 (2) 2023, 61-74.
- Okoli C. I. & Ozoegwu I. S., *Adoption of self-monitoring-learning strategies for skill acquisition among Financial Accounting students in colleges of education in South-East Nigeria*, **International Journal of Education Humanities and Social Science**, 4 (1), 2021, 267-277
- Okoli C. S. & Okigbo E. C., *Effects of cooperative learning strategy and inquiry based learning on secondary school students' academic achievement in chemistry in Nnewi Education Zone*, **International Journal of Innovative Research and Advanced Studies (IJIRAS)**, 8 (5), 2021, 50-56.
- Oluwadare A. A., Omidiji S. A. & Awe O. H., *Business Education curriculum development and implementation in Nigeria: Problems and prospects*, **Nigerian Journal of Business Education (NIGJBED)**, 9(2), 2022, 123-130.
- Ore E. R., Hassan A. M. & Ogungbo M. O., *Business Education and digital skills: A conceptual review*, **International Journal of Advanced Research in Multidisciplinary Studies (IJARMS)**, 2 (1), 2022, 41-45, https://alhikmahuniversity.edu.ng/centralJournal/single_pub.php?id=312
- Ore E. R., *Effectiveness of business education programme and the development of employability skills of business education students in public universities in Lagos State, Nigeria*, **African journal of Educational Management**, 23 (1), 2022, 57-73, <http://journals.ui.edu.ng/index.php/ajem/article/download/870/722>
- Oyeyemi O. S. & Oyeyemi O. A., *Pedagogical constraints in business education practice in universities in Rivers State, Nigeria*, **International Journal of Innovative Social & Science Education Research**, 9 (4), 2021, 111-119.
- Pohan A., Asmin A. & Menanti A., *The effect of problem based learning and learning motivation of mathematical problem-solving skills of class 5 students at SDN 0407 Mondang*, **BirLE**, 3, 2020, 531–539.
- Puteh, M. Z. S., Yunus, F. A., Hamdan, N. H. & Latif, H. F., *Reliability and validity of instrument on academic enhancement support for student-athlete using rasch measurement model*, **Asian Journal of University Education (AJUE)** 18, (1), 2022, 1-10

- Rahman, M. M., *Sample size determination for survey research and non-probability sampling techniques: a review and set of recommendations* **J Entrep Bus Econ**, 11 (1 11) (2023), pp. 42-62 <https://www.scientificia.com/index.php/JEBE/article/view?path=>
- Rio, D. S., Fitri A. & Rosa, E. M., *Validity and reliability of research instruments on the effect of motivation on nurse performance in moderation with nurse credentials*, **JMMR (Jurnal Medicoeticolegal dan Manajemen Rumah Sakit)**, 12 (1), 2023, 46-55, <https://jmmr.umy.ac.id/index.php/jmmr>
- Reynolds A. R. & Walberg H. J., *A process model of mathematics achievement and attitude*, **Journal of Research in Mathematics**, 23, 1992, 306-328.
- Rugutt J. K. & Chemosit C. C., *A study of factors that influence college academic achievement: a structural equation modeling approach*, **Journal of Educational Research & Policy Studies Spring**, 5 (1), 2005, 66-90.
- Samosa R. C., *Cooperative learning approach as innovation to improve students' academic achievement and attitude in teaching biology* **Journal of World Englishes and Educational Practices (JWEEP)** 3 (1), 2021, 1-10
- Sari R., Supatminingsih T., Hasan M. & Rahmatullah R., *The effect of numbered heads together (nht) cooperative learning model and learning interest on student learning outcomes*, **Jurnal Eduscience (JES)**, 10 (1), 87-103 https://www.researchgate.net/publication/373717168_the_effect_of_numbered_heads_together_nht_cooperative_learning_model_and_learning_interest_on_student_learning_outcomes [accessed may 24 2024].
- Silalahi T. F. & Hutauruk A. F., *The application of cooperative learning model during online learning in the pandemic period*, **Budapest International Research and Critics Institute-Journal (BIRCI-Journal)**, 3 (3), 2020, 1683-1691
- Sikandar B., Shah M. N. & Anjum F., *Effectiveness of cooperative learning strategies in the subject of english at elementary schools level*, **International Research Journal of Education and Innovation**, 02(22)3, 2022, 25-42.
- Tadese M., Yeshaneh A. & Mulu G. B., *Determinants of good academic performance among university students in Ethiopia: a cross-sectional study*, **BMC Medical Education**, 22 (1), 2022, 1-9.
- Todorovic, D., *Gestalt Principles*, **Scholarpedia**, 3 (12), 2008, 5345 -5355 http://www.scholarpedia.org/article/Gestalt_principles
- Ugwunwoti E. P., *Effect of cooperative teaching method on senior secondary school students' achievement and retention in financial accounting in Enugu State*, **Journal of Education and Practice**, 12 (27), 2021, 106-115.

- Walberg H. J., Fraser B. J. & Welch W. W., *A test of a model of educational productivity among senior high school students*, **Journal of Educational Research**, 79, 1986, 133-139.
- Wang Y. P., *Effects of online problem-solving instruction and identification attitude toward instructional strategies on students' creativity*, **Front. Psychol.**, 12, 2021, 1-6 .
- Wibowo F. C., *Effects of augmented reality integration (ari) based model physics independent learning (MPIL) for facilitating 21st-Century Skills (21-CS)*, **Journal of Technology and Science Education**, 13(1), 2023, 178-192. <https://doi.org/10.3926/jotse.1800>
- Wilson S., *Teaching and learning problem solving method: A way of solving the problem scientifically*. **SELP Journal of Social Scienc**, IX (38), 2020, 53-56.
- Yusuf R. M. & Syarif H., *Cooperative learning model in the teaching of foreign languages*, **Jurnal Ilmiah Mandala Education (JIME)** 9 (1), 2023, 788-795. DOI: 10.58258/jime.v9i1.4150/<http://ejournal.mandalanursa.org/index.php/JIME>
- Zhou Z. & Siti M. M., *A literature review on the academic achievement of college students*, **Journal of Education and Social Sciences**, 20 (1), 2022, 11-18

Textbooks

- Caulfield, J., *How to design and teach a hybrid course: Achieving student-centered learning through blended classroom, online and experiential activities* Routledge: New York, 2023.
- Federal Federal Republic of Nigeria, *National policy on education*, NERDC, 6th edition. 2013
- Isnawan, M. G., *Quasi-experimental design*, Nashir Al-Kutub: Indonesia, 2022
- Wertheimer M., *Productive thinking*, Harper & Row: New York, 1959
- Woolfolk A., *Educational psychology*. Pearson New International: New York, (12th.ed.), 2014

Thesis/Dissertation (Unpublished)

- Fawale A. A., *Effect of collaborative m-learning techniques on academic performance of students in office practice*. Maletе, Nigeria: Kwara State University, Maletе, 2022
- David S., *Effects of guided-discovery and problem-solving teaching methods on students' academic performance in Financial Accounting in colleges of education, North Central, Nigeria Department of Business and Entrepreneurship Education, College of Education, Kwara State Univeresity, Maletе*, 2019

Websites

- Chen G., *Cooperative learning*, Available Online: <https://www.publicschoolreview.com/blog/cooperative-learning>

- Europass teacher academy, *What is cooperative learning? 5 strategies for your classroom*, Available Online: <https://www.teacheracademy.eu/blog/cooperative-learning-strategies>
- Kumari G., *What is the difference between teaching methods and teaching strategies?* Available Online: <https://www.differencebetween.com/what-is-the-difference-between-teaching-methods-and-teaching-strategies>
- Learning and teaching B.ed notes concept of teaching. *What are the basic principles of teaching*, Available Online: <https://www.examglucose.com/2021/02/what-is-teaching-concept-of-teaching.html/>
- Lee C., *Instructional design models and theories: the gestalt psychology of learning* Available Online: <https://teachonline.asu.edu/2018/02/instructional-design-models-theories-gestalt-psychology-learning/>
- Lohman L., *Cooperative learning model, characteristics & techniques*, Available Online: <https://study.com/learn/lesson/video/cooperative-learning-model-characteristics.html>
- Sinha P., *What is the difference between 'teaching strategy' and 'teaching methods'?* Available Online: <https://classplusapp.com/growth/what-is-the-difference-between-a-teaching-strategy-and-teaching-methods>
- Solomon S., *Cooperative learning: a complete guide for teachers*, Available Online: <https://www.teachervision.com/professional-development/cooperative-learning>
- What is cooperative learning?: definition and types.* Available Online: <https://www.ecoleglobale.com/blog/cooperative-learning>
- Yuvi, *General principles of teaching*, Available Online: <https://www.yogiraj.co.in/general-principle-of-teaching>

Lead City University Ibadan DO NOT COPY

Appendix 1



Lead City University (LCU)

Motto: Knowledge for Self-reliance

Administrative Building, Lagos - Ibadan Expressway, Toll Gate Area, Ibadan,
Oyo State, Nigeria Tel: 08033794249 Email: asse@lcu.edu.ng

Dr. Oluyomi Susan Pitan
B.Sc. (Ed.), Ife; M.Ed., Ph.D. Ibadan
Head, Department of Arts & Social Science Education

**Department of Arts & Social
Science Education**

www.lcu.edu.ng

22nd January, 2024.

Head,
Department of Technology and Vocational Education,
Faculty of Education,
University of Lagos. Akoka,
Lagos State -
Sir/Ma

LETTER OF INTRODUCTION

This is to introduce Elizabeth Remilekun ORLE as a Postgraduate Student in Lead City University, Ibadan, Oyo State, Nigeria; Department of Arts and Social Science Education (Business Education) to your prestigious Institution as a Researcher.

She is currently on her PhD programme in Business Education in the University and needs to collect data for her Thesis titled: Think-Pair-Share, Problem Solving Teaching Method and Business Education Students' Academic Achievement in Financial Accounting in Southwest, Nigeria and your Institution is one of her sample Institutions where she will be carrying out a quasi-experimental study.

We respectfully request that your school will kindly assist her with all necessary information and needed assistance which can be useful during the research field work.

Yours faithfully

Dr. O. S. Pitan

Head of Department

Appendix II

Lead City University Ibadan DO NOT COPY



Lead City University (LCU)

Motto: Knowledge for Self-reliance

Administrative Building, Lagos - Ibadan Expressway, Toll Gate Area, Ibadan,
Oyo State, Nigeria Tel: 08033794249 Email: asse@lcu.edu.ng

Dr. Oluyomi Susan Pitan

B.Sc. (Ed.), Ife; M.Ed., Ph.D. Ibadan
Head, Department of Arts & Social Science Education

**Department of Arts & Social
Science Education**

www.lcu.edu.ng

22nd January, 2024

Head,
Department of Educational Management
Faculty of Education,
Lagos State University, Ojo,
Lagos State

Sir/Ma

LETTER OF INTRODUCTION

This is to introduce Elizabeth Remilekun ORE as a Postgraduate Student in Lead City University, Ibadan, Oyo State, Nigeria; Department of Arts and Social Science Education (Business Education) to your prestigious Institution as a Researcher.

She is currently on her PhD programme in Business Education in the University and needs to collect data for her Thesis titled: Think-Pair-Share, Problem Solving Teaching Method and Business Education Students' Academic Achievement in Financial Accounting in Southwest, Nigeria and your Institution is one of her sample institutions where she will be carrying out a quasi-experimental study.

We respectfully request that your school will kindly assist her with all necessary information and needed assistance which can be useful during the research field work.

Yours faithfully

Dr. O. S. Pitan

Head of Department

Appendix III

Lead City University Ibadan DO NOT COPY



Lead City University (LCU)

Motto: Knowledge for Self-reliance

*Administrative Building, Lagos - Ibadan Expressway, Toll Gate Area, Ibadan,
Oyo State, Nigeria Tel: 08033794249 Email: asse@lcu.edu.ng*

Dr. Oluyomi Susan Pitan

B.Sc. (Ed.), Ife; M.Ed., Ph.D. Ibadan

Head, Department of Arts & Social Science Education

Department of Arts & Social Science Education

www.lcu.edu.ng

22nd January, 2014

Head,
Department of Educational Management and Business Studies,
Faculty of Education,
Olabisi Onabanjo University, Ago-Iwoye,
Ogun State

Sir/Ma

LETTER OF INTRODUCTION

This is to introduce Elizabeth Remilekun ORE as a Postgraduate Student in Lead City University, Ibadan, Oyo State, Nigeria; Department of Arts and Social Science Education (Business Education) to your prestigious Institution as a Researcher.

She is currently on her PhD programme in Business Education in the University and needs to collect data for her Thesis titled: Think-Pair-Share, Problem Solving Teaching Method and Business Education Students' Academic Achievement in Financial Accounting in Southwest, Nigeria and your Institution is one of her sample Institutions where she will be carrying out a quasi-experimental study.

We respectfully request that your school will kindly assist her with all necessary information and needed assistance which can be useful during the research field work.

Yours faithfully

Dr. O. S. Pitan

Head of Department

Appendix IV

Financial Accounting Achievement Test on Partnership Account

Pre-test

Instruction: Answer all questions in Sections A and B

Section A

1. Gender: Male [], Female []
2. Age (in years): 17 – 20 [] 21 – 30 [] above 30 []
3. Registration/Matric Number.....

Section B: Objective Questions

Instruction: Indicate the answer by ticking the correct option

1. The form of business where two or more people normally a maximum of twenty come together for profit purposes is known as

- (a) Sole Proprietorship
- (b) Trading Account
- (c) Partnership
- (d) Partnership Account

2. is refers to as partnership agreement

- (a) Contract
- (b) Trading Account
- (c) Partnership Deed
- (d) Partnership Contract

3. In the balance sheet, a bank overdraft is a/an.....

- (a) Current liability
- (b) Current asset

- (c) Fixed asset
- (d) Long term liability

4. A partner who does not involve in the running of the business and whose liability is limited to the capital invested by him in the business is.....

- (a) Sleeping Partner
- (b) Active Partner
- (c) Unlimited Partner
- (d) Limited Partner

5. The term depreciation means the..... of an asset

- (a) Life span
- (b) Reduction in value
- (c) Scrap value
- (d) Increase in cost

6. The following are reasons for formation of partnership except.....

- (a) The nature of the business
- (b) To share the business risk with other people
- (c) To combine business experience
- (d) Need to increase in capital

7. On dissolution of a partnership, the assets of the firm must be used in the following order except

- (a) To purchase more assets
- (b) To repay outside creditors
- (c) To repay partners' capital
- (d) To repay partners loan

8..... is the initial amount of capital invested by each partners

- (a) Current Capital
- (b) Nominal Capital
- (c) Floating Capital
- (d) Fixed Capital

9.is the account which records the financial transaction between the partners and the partnership during a given period

- (a) Current Capital Account
- (b) Nominal Capital Account
- (c) Floating Capital Account
- (d) Fixed Capital Account

10. Which of the following account is used to distribute the yearly profit or loss among partners according to the agreed policy

- (a) Profit or Loss Account
- (b) Allocation Account
- (c) Appropriation Account
- (d) Fixed Capital Account

11. Interest on loan account represents an expense charged againstbefore arriving at the net profit of the partnership.

- (a) Capital
- (b) Revenue
- (c) Income
- (d) Profit

12. Where there are no specific arrangements pertaining to the agreement, the following provisions of the Partnership Act of 1890 must be applied except.....

- (a) 5% Interest on Capital contributed by partners
- (b) 5% Interest a year on loans made by partners in excess of the agreed capitals
- (c) No remuneration or salary to partners
- (d) Profits or losses are to be shares equally

13.is a partner that contributes only his name to the formation of the business and nothing else

- (a) Sleeping partner
- (b) Nominal partner
- (c) Dormant partner
- (d) Active partner

14.is not a reason for revaluation of assets in partnership business

- (a) Admission of a new partner
- (b) When a partner retires
- (c) Changes in the profit sharing ratio
- (d) When a new asset is purchased

15. The coming to an end of a partnership agreement is refers to as.....

- (a) Resolution of partnership
- (b) Dissolution of partnership
- (c) Bankruptcy of partnership
- (d) Folding of partnership

16. The coming to an end of a partnership agreement may be caused by the following factors except.....

- (a) Death of partner
- (b) Expiration of partnership agreement
- (c) Bankruptcy of a partner
- (d) Dissolution of a partner

17. The accounting equation states that.....

- (a) $C = A + L$
- (b) $L = A + C$
- (c) $A = C + L$
- (d) $A = L - C$

18. Which of the following account is prepared in a revaluation account?

- (a) Current accounts of partners
- (b) Capital accounts of partners
- (c) Appropriation accounts of partners
- (d) Partnership accounts of partners

19.is the excess of the purchases consideration over the total value of assets less liabilities

- (a) Commission
- (b) Profit
- (c) Goodwill
- (d) Income

20. One of the following is not a reason for changes in partnership

- (a) Death of a partner
- (b) Changes in profit or loss sharing ratio
- (c) Amalgamation of partnership

(d) Continuation of partnership

Theory Question

Below is the trial balance of the partnership of Ayo and Bola as at 31st December, 2022

| | DR | CR |
|---------------------|----------------|----------------|
| | N | N |
| Opening inventory | 168,000 | |
| Sales | | 515,000 |
| Returns | 15,500 | 11,500 |
| Discount | 6,000 | 7,800 |
| Rent | 6,000 | |
| Rates | 2,500 | |
| Electricity | 41,500 | |
| General Expenses | 4,900 | |
| Purchases | 330,000 | |
| Carriage outwards | 9,000 | |
| Cash | 3,500 | |
| Bank | 14,200 | |
| Debtors | 127,500 | |
| Bad debt | 3,000 | |
| Plant and Machinery | 70,000 | |
| Salaries | 19,500 | |
| Creditors | | 155,000 |
| Capital: Ayo | | 62,500 |
| Bola | | 69,300 |
| | 821,100 | 821,100 |

Additional information:

- Inventory at 31st December 2022 is N 107,700
- Depreciation on plant and machinery is 10% per annum
- Provide for bad and doubtful debt 2 ½ % on debtors
- Interest on partners' capital at 5% per annum

e. Profits and losses are shared equally

You are required to prepare:

- i. The income statement for the year ended 31st December, 2022
- ii. Profit and loss appropriation account; and
- iii. A statement of financial position as at 31st December, 2022

Pre-Test Marking Scheme

1. C

2. C

3. A

4. D

5. B

6. A

7. A

8. D

9. A

10. C

11. D

12. A

13. B

14. D

15. B

16. D

17. C

18. B

19. C

20. D

2mark x 20 options = 40 mark

Solution to Theory

Ayo and Bola

Income Statement

For the year ended 31st December, 2022

| | N | N | N |
|-------------------------|---------|----------------|----------------------|
| Sales | | | 515,000 |
| Less: Return inwards | | | <u>15,500</u> |
| | | | 499,500 |
| Opening inventory | | 168,000 | |
| Add: Purchases | 330,000 | | |
| Less: Return outwards | 11,500 | <u>318,500</u> | |
| Cost of goods available | | 486,500 | |
| Less: Closing inventory | | <u>107,700</u> | |
| Cost of goods sold | | | <u>378,800</u> |
| Gross Profit | | | 120,700 |
| Discount received | | | 7,800 |
| Less Expenses: | | | |
| Discount allowed | | 6,000 | |
| Rent | | 6,000 | |
| Rate | | 2,500 | |
| Electricity | | 41,500 | |
| General expenses | | 9,000 | |
| Carriage outwards | | 4,900 | |
| Bad debts | | 3,000 | |
| Salaries | | 19,500 | |
| Prov. For bad debt | | 3,190 | |
| Depreciation | | <u>7,000</u> | |
| | | | <u>102,590</u> |
| Net profit c/d | | | <u>25,910</u> |
| Net profit b/d | | | 25,910 |

Interest on capital account

| | | | |
|-----------------|-------|--------|--|
| Ayo | 3,125 | | |
| Bola | 3,465 | | |
| Share of profit | | | |
| Ayo | 9,660 | | |
| Bola | 9,660 | 25,910 | |
| | | | |

Partners Current Account

| | Ayo | Bola | | Ayo | Bola |
|-------------|---------------|---------------|---------------------|---------------|---------------|
| | N | N | | N | N |
| Balance c/d | 12,785 | 12,785 | Interest on capital | 3,125 | 3,465 |
| | | | Share of profit | 9,660 | 9,660 |
| | 12,785 | 13,125 | | 12,785 | 13,125 |

Statement of Financial Position

As at 31st December, 2022

| Capital Account | N | N | Fixed Assets | N | N |
|------------------------|----------|----------------|-----------------------|----------|----------------|
| Ayo | 62,500 | | Plant & mach. | | 70,000 |
| Bola | 69,300 | 131,800 | Depreciation | | 7,000 |
| | | | | | 63,000 |
| Current Account | | | Current Assets | | |
| Ayo | 12,785 | | Inventory | | 107,700 |
| Bola | 13,125 | 25,910 | Debtors | 126,500 | |
| | | | Less Prov. | 3,190 | 124,310 |
| Current Liabilities | | | Bank | | 14,200 |
| Creditors | | 155,000 | Cash | | 3,500 |
| | | <u>312,710</u> | | | <u>312,710</u> |

Appendix V

Financial Accounting Achievement Test on Partnership Account

Post test

Instruction: Answer all questions in Sections A and B

Section A

1. Gender: Male [], Female []
2. Age (in years): 17 – 20 [] 21 – 30 [] above 30 []
3. Registration/Matric Number.....

Section B: Objective Questions

Instruction: Indicate the answer by ticking the correct option

1. The form of business where two or more people normally a maximum of twenty come together for profit purposes is known as

- (a) Sole Proprietorship
- (b) Trading Account
- (c) Partnership
- (d) Partnership Account

2. is refers to as partnership agreement

- (a) Contract
- (b) Trading Account
- (c) Partnership Deed
- (d) Partnership Contract

3. In the balance sheet, a bank overdraft is a/an.....

- (a) Current liability
- (b) Current asset
- (c) Fixed asset
- (d) Long term liability

4. A partner who does not involve in the running of the business and whose liability is limited to the capital invested by him in the business is.....

- (a) Sleeping Partner
- (b) Active Partner
- (c) Unlimited Partner
- (d) Limited Partner

5. The term depreciation means the..... of an asset

- (a) Life span
- (b) Reduction in value
- (c) Scrap value
- (d) Increase in cost

6. The following are reasons for formation of partnership except.....

- (a) The nature of the business
- (b) To share the business risk with other people
- (c) To combine business experience
- (d) Need to increase in capital

7. On dissolution of a partnership, the assets of the firm must be used in the following order except

- (a) To purchase more assets

- (b) To repay outside creditors
- (c) To repay partners' capital
- (d) To repay partners loan

8..... is the initial amount of capital invested by each partners

- (a) Current Capital
- (b) Nominal Capital
- (c) Floating Capital
- (d) Fixed Capital

9.is the account which records the financial transaction between the partners and the partnership during a given period

- (a) Current Capital Account
- (b) Nominal Capital Account
- (c) Floating Capital Account
- (d) Fixed Capital Account

10. Which of the following account is used to distribute the yearly profit or loss among partners according to the agreed policy

- (a) Profit or Loss Account
- (b) Allocation Account
- (c) Appropriation Account
- (d) Fixed Capital Account

11. Interest on loan account represents an expense charged againstbefore arriving at the net profit of the partnership.

- (a) Capital
- (b) Revenue
- (c) Income
- (d) Profit

12. Where there are no specific arrangements pertaining to the agreement, the following provisions of the Partnership Act of 1890 must be applied except.....

- (a) 5% Interest on Capital contributed by partners
- (b) 5% Interest a year on loans made by partners in excess of the agreed capitals

- (c) No remuneration or salary to partners
- (d) Profits or losses are to be shares equally

13. is a partner that contributes only his name to the formation of the business and nothing else

- (a) Sleeping partner
- (b) Nominal partner
- (c) Dormant partner
- (d) Active partner

14. is not a reason for revaluation of assets in partnership business

- (a) Admission of a new partner
- (b) When a partner retires
- (c) Changes in the profit sharing ratio
- (d) When a new asset is purchased

15. The coming to an end of a partnership agreement is refers to as.....

- (a) Resolution of partnership
- (b) Dissolution of partnership
- (c) Bankruptcy of partnership
- (d) Folding of partnership

16. The coming to an end of a partnership agreement may be caused by the following factors except.....

- (a) Death of partner
- (b) Expiration of partnership agreement
- (c) Bankruptcy of a partner
- (d) Dissolution of a partner

17. The accounting equation states that.....

- (a) $C = A + L$
- (b) $L = A + C$
- (c) $A = C + L$
- (d) $A = L - C$

18. Which of the following account is prepared in a revaluation account?

- (a) Current accounts of partners
- (b) Capital accounts of partners
- (c) Appropriation accounts of partners
- (d) Partnership accounts of partners

19.is the excess of the purchases consideration over the total value of assets less liabilities

- (a) Commission
- (b) Profit
- (c) Goodwill
- (d) Income

20. One of the following is not a reason for changes in partnership

- (a) Death of a partner
- (b) Changes in profit or loss sharing ratio
- (c) Amalgamation of partnership
- (d) Continuation of partnership

Theory Question

Below is the trial balance of the partnership of Ayo and Bola as at 31st December, 2022

| | DR | CR |
|---------------------|-----------|-----------|
| | ₦ | ₦ |
| Opening inventory | 168,000 | |
| Sales | | 515,000 |
| Returns | 15,500 | 11,500 |
| Discount | 6,000 | 7,800 |
| Rent | 6,000 | |
| Rates | 2,500 | |
| Electricity | 41,500 | |
| General Expenses | 4,900 | |
| Purchases | 330,000 | |
| Carriage outwards | 9,000 | |
| Cash | 3,500 | |
| Bank | 14,200 | |
| Debtors | 127,500 | |
| Bad debt | 3,000 | |
| Plant and Machinery | 70,000 | |
| Salaries | 19,500 | |
| Creditors | | 155,000 |
| Capital: Ayo | 62,500 | |

| | | |
|------|----------------|----------------|
| Bola | 69,300 | |
| | 821,100 | 821,100 |

Additional information:

- f. Inventory at 31st December 2022 is N 107,700
- g. Depreciation on plant and machinery is 10% per annum
- h. Provide for bad and doubtful debt 2 ½ % on debtors
- i. Interest on partners' capital at 5% per annum
- j. Profits and losses are shared equally

You are required to prepare:

- iv. The income statement for the year ended 31st December, 2022
- v. Profit and loss appropriation account; and
- vi. A statement of financial position as at 31st December, 2022

Post-Test Marking Scheme

- 1. C
- 2. C
- 3. A
- 4. D
- 5. B
- 6. A
- 7. A
- 8. D
- 9. A
- 10. C
- 11. D

12. A
 13. B
 14. D
 15. B
 16. D
 17. C
 18. B
 19. C
 20. D

2mark x 20 options = 40 mark

Solution to Theory

Ayo and Bola

Income Statement

For the year ended 31st December, 2022

| | | | |
|-------------------------|---------|----------------|----------------|
| | N | N | N |
| Sales | | | 515,000 |
| Less: Return inwards | | | <u>15,500</u> |
| | | | 499,500 |
| Opening inventory | | 168,000 | |
| Add: Purchases | 330,000 | | |
| Less: Return outwards | 11,500 | <u>318,500</u> | |
| Cost of goods available | | 486,500 | |
| Less: Closing inventory | | <u>107,700</u> | |
| Cost of goods sold | | | <u>378,800</u> |
| Gross Profit | | | 120,700 |
| Discount received | | | 7,800 |
| Less Expenses: | | | |

| | |
|-----------------------|---------------|
| Discount allowed | 6,000 |
| Rent | 6,000 |
| Rate | 2,500 |
| Electricity | 41,500 |
| General expenses | 9,000 |
| Carriage outwards | 4,900 |
| Bad debts | 3,000 |
| Salaries | 19,500 |
| Prov. For bad debt | 3,190 |
| Depreciation | <u>7,000</u> |
| | 102,590 |
| Net profit c/d | <u>25,910</u> |
| Net profit b/d | 25,910 |

Interest on capital account

| | | |
|-----------------|-------|--------|
| Ayo | 3,125 | |
| Bola | 3,465 | |
| Share of profit | | |
| Ayo | 9,660 | |
| Bola | 9,660 | 25,910 |
| | | |

Partners Current Account

| | Ayo | Bola | | Ayo | Bola |
|-------------|---------------|---------------|---------------------|---------------|---------------|
| | N | N | | N | N |
| Balance c/d | 12,785 | 12,785 | Interest on capital | 3,125 | 3,465 |
| | | | Share of profit | 9,660 | 9,660 |
| | <u>12,785</u> | <u>13,125</u> | | <u>12,785</u> | <u>13,125</u> |

Statement of Financial Position

As at 31st December, 2022

| Capital Account | N | N | Fixed Assets | N | N |
|------------------------|----------|----------|---------------------|----------|----------|
| Ayo | 62,500 | | Plant & mach. | | 70,000 |
| Bola | 69,300 | 131,800 | Depreciation | | 7,000 |
| | | | | | 63,000 |

| Current Account | | | Current Assets | | |
|----------------------------|--------|----------------|-----------------------|---------|----------------|
| Ayo | 12,785 | | Inventory | | 107,700 |
| Bola | 13,125 | 25,910 | Debtors | 126,500 | |
| | | | Less Prov. | 3,190 | 124,310 |
| Current Liabilities | | | Bank | | 14,200 |
| Creditors | | 155,000 | Cash | | 3,500 |
| | | <u>312,710</u> | | | <u>312,710</u> |

½ mark for correct heading and 1 mark each for correct posting= 60 marks

Appendix VI

(Lesson Plan on Think-Pair-Share Teaching Method) Week 2

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Accounts

Method of Teaching: Think-Pair-Share

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of partnership
- b. state at least three reasons for formation of partnership
- c. list and explain the three kinds of partner

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|--------------------------------------|--|--|
| Step I | Meaning of Partnership | The teacher writes out the learning objectives on the board for the students and then group the students into pairs. | Students in their pairs will think and discuss on the meaning of partnership |
| Step II | Reasons for formation of partnership | Teacher explains that partnership business is formed for the purpose of i. Increasing the business capital which cannot be provided for by one person | Students as an individual and in pairs think and discuss on the reasons for the formation of partnership |

| | | | |
|----------|--------------------------------------|---|--|
| | | <p>ii. Combining experience, knowledge and ability</p> <p>iii. Sharing business risk</p> | |
| Step III | Types of Partnership | <p>i. Sleeping/Dormant Partner</p> <p>ii. Active Partner</p> <p>iii. Nominal Partner</p> | Student as an individual and in pairs think and discuss on the types of partners |
| Step IV | Terminologies of Partnership account | <p>Teacher briefly describes the following terminologies thus:</p> <ul style="list-style-type: none"> - Appropriation Account: is the account used to distribute the yearly profit or loss among the partners according to the agreed policies - Current account: this is the account which records the financial transaction between the partners and the partnership during a given period e.g. salary, interest on capital, share of profits, drawings and interest on drawings - Fixed capital account: this is the initial amount of capital invested by each partners. - Partnership deed: this is refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Drawings: partners can withdraw at regular or irregular interval from the sum they are entitled to at the end of the year. - Interest on drawings: this is the amount charged on drawings made by the partners. | Students individually will think out the correct answer and then pair up in twos to discuss amongst themselves and then share their findings with the larger class |
| Step V | Evaluation | <p>Teacher asks the following questions orally:</p> <ol style="list-style-type: none"> 1. What is partnership account? 2. what are reasons for the formation of partnership | Students answer the questions orally |
| Step VI | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic. | Students copy notes as the teacher summarizes the lesson. |

| | | | |
|----------|------------|---|---|
| Step VII | Assignment | Teacher concludes the class by giving the students reading assignment on the reasons for preparing a partnership account. | Students copy the assignment as given by the teacher. |
|----------|------------|---|---|

(Lesson Plan on Think-Pair-Share Teaching Method) Week 3

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Accounts

Method of Teaching: Think-Pair-Share

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. mention at least four items contained in partnership deed
- b. state at least two reasons for preparing a partnership account
- c. Prepare a complete account of a partnership business using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|---|---|--|
| Step I | Items under partnership account | Teacher distributes a prepared format of partnership account to the students | Students observe and ask relevant questions while taking down the format. |
| Step II | Reasons for preparing Partnership Account | <ol style="list-style-type: none">i. to ascertain the profit for the accounting periodii. to determine the share of profits that will be giving to each partneriii. to record the routine changes in the amount a business owes each partneriv. to track the amount taking from the business for personal use. | Students first think individually about the reasons for preparing partnership account, then the pair up in twos to share their answers before sharing it with the general class. |

| | | | |
|-----------|------------------------------------|--|---|
| Step III | Preparation of Partnership Account | Teacher distributes already prepared question to the students and facilitates. At the point of students' presentation the teacher moderates excesses and deficiencies. | The students will observe the question individually within a stipulated time frame after which, the teacher will pair them (2 persons per group) to critically think about the question within a stipulated time frame after which one person from the pair will share the answer with the whole class. |
| Step IV | Evaluation | Teacher asks the following questions orally: 1. List at least five items in a partnership account 2. why do we prepare partnership account? | Students will think individually about the questions within a stipulated time frame after which they will pair up in twos to share their answers before sharing it with the larger class |
| Step VII | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic. | Students copy notes as the teacher summarizes the lesson. |
| Step VIII | Assignment | Teacher concludes the class by giving the students reading assignment on the next topic Revaluation Account | Students copy the assignment as given by the teacher. |

Format of Partnership Account for the year ended 31st December, 20xx

ABC and XYZ

Income Statement

For the year ended 31st December, 20XX

| | | | |
|-----------------------------|----|-----------|-----------|
| | N | N | N |
| Sales | | | XX |
| Less: Return inwards | | | <u>X</u> |
| | | | XX |
| Opening inventory | | XX | |
| Add: Purchases | XX | | |
| Less: Return outwards | X | <u>XX</u> | |
| Cost of goods available | | XX | |
| Less: Closing inventory | | <u>X</u> | |
| Cost of goods sold | | | <u>XX</u> |
| Gross Profit | | | XX |
| Less Expenses: | | | |
| Rent | | X | |
| Rate | | X | |
| Electricity | | X | |
| General expenses | | X | |
| Carriage outwards | | X | |
| Bad debts | | X | |
| Salaries | | X | |
| Depreciation | | <u>X</u> | |
| | | | <u>XX</u> |
| Net profit c/d | | | <u>XX</u> |
| Net profit b/d | | | XX |
| Interest on capital account | | | |
| ABC | | X | |
| XYZ | | X | |
| Share of profit | | | |
| ABC | | X | |
| XYZ | | X | XX |
| | | | |

Partners Current Account

| | ABC | XYZ | | Abiola | Dami |
|-------------|-----|-----|---------------------|--------|------|
| | N | N | | N | N |
| Balance c/d | X | X | Interest on capital | X | X |

| | | | | |
|----|----|-----------------|----|----|
| | | Share of profit | X | X |
| XX | XX | | XX | XX |

**Statement of Financial Position
As at 31st December, 20XX**

| | | | | | |
|----------------------------|----|----|-----------------------|----|----|
| Capital Account | N | N | Fixed Assets | N | N |
| ABC | XX | | Plant & mach. | | XX |
| XYZ | XX | XX | Depreciation | | X |
| | | | | | XX |
| Current Account | | | Current Assets | | |
| ABC | XX | | Inventory | | XX |
| XYZ | XX | XX | Debtors | XX | |
| | | | Less Prov. | X | XX |
| Current Liabilities | | | Bank | | XX |
| Creditors | | XX | Cash | | XX |
| | | XX | | XX | |

(Lesson Plan on Think-Pair-Share Teaching Method) Week 4

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Think-Pair-Share

Duration: One hour

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of revaluation
- b. state at least three reasons for revaluation of assets
- c. explain at least three terminologies of Revaluation of Assets Account

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|--------|--------------------------------|---|--|
| Step I | Meaning of Revaluation Account | The teacher explains the concept of revaluation as account prepared to show the increase or decrease in value of assets | Students in their pairs will think and discuss on the meaning of partnership |

| | | | |
|----------|--|---|--|
| Step II | Purpose of Revaluation of Assets Account | The teacher gives out the main purpose of revaluation account as to basically ascertain the increase or decrease in the value of assets of the business | Students as an individual and in pairs think and discuss on the reasons for formation of partnership and then present it to the larger class. |
| Step III | Terminologies of Revaluation of Assets Account | Teacher briefly describes the following terminologies thus: - Revaluation: this is the process of valuing an already in existence asset for the purpose of determining the increase or decrease in its value - Change in profit sharing ratio: this is the situation where the agreed profit sharing ratio of partners changes as a result of a review agreed upon by the partners due to the admission of a new partner or retirement of an existing partner. - Opening capital: this is the initial capital invested or contributed by partners at the commencement of the partnership business. - Partnership deed: this refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Fixed capital account: this is the initial amount of capital invested by each partners. | Student individually thinks about the possible terminologies in revaluation of assets account, then pair up in twos to discuss their findings and finally discuss same with the larger class |
| Step IV | Evaluation | Teacher asks the following questions orally: 1. What is revaluation? 2. list at least three reasons for the revaluation of assets | Students answer the questions orally |
| Step V | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step | Assignment | Teacher concludes the class giving the students reading assignment on the | Students copy the assignment as given by the |

| | | | |
|----|--|--|----------|
| VI | | format of revaluation of assets in partnership account | teacher. |
|----|--|--|----------|

(Lesson Plan on Think-Pair-Share Teaching Method) Week 5

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Think-Pair-Share

Duration: Two hours

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

a. Prepare a complete account on revaluation using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|------------------------------------|--|--|
| Step I | Items under revaluation account | Teacher distributes a prepared format of revaluation account to the students | Students observe and ask relevant questions while taking down the format. |
| Step II | Preparation of Revaluation Account | Teacher distributes already prepared question to the students and serves as a facilitator. At the point of | The students will observe the question individually within a stipulated time frame after which, the teacher will pair them (2 persons per group) to critically think about the |

| | | | |
|----------|------------|--|--|
| | | presentation the teacher moderates excesses and deficiencies. | question within a stipulated time frame after which one person from the pair will share the answer with the whole class. |
| Step III | Evaluation | Teacher asks the following questions orally: 1. list at least five items in the revaluation of assets | Students answer the questions orally |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic dissolution account | Students copy the assignment as given by the teacher. |

Format of Revaluation Account for the year ended 31st December, 20XX

**Closing Statement of Financial Position
As at 1st January, 20XX**

| Capital Account | N | N | Fixed Assets | N | N |
|----------------------------|----------|----------|-----------------------|----------|----------|
| ABC | XX | | Freehold Premises | | XX |
| XYZ | XX | | Fixtures and fitting | | XX |
| | | XX | Goodwill | | XX |
| | | | | | XX |
| Current Liabilities | | | Current Assets | | |
| Creditors | | XX | Inventory | | XX |
| | | | Debtors | XX | |
| | | | Less Prov. | X | XX |
| | | | Bank | | XX |
| | | | Cash | | XX |
| | | XX | | | XX |

Revaluation Account

| | N | | N |
|------------------------------------|----------|------------------------------------|----------|
| Decrease in value of assets | | Increase in value of assets | |
| Fixtures and fittings | X | Freehold premises | X |
| Inventory | X | Goodwill | X |
| Provision for bad debt | X | | |

| | | | |
|------------------|----|--|-----|
| Share of profit: | | | |
| ABC | X | | |
| XYZ | X | | --- |
| | XX | | XX |

ABC, XYZ and KPK

Partners' Capital Account

| | ABC | XYZ | KPK | | ABC | XYZ | KPK |
|-------------|-----|-----|-----|-----------------|-----|-----|-----|
| | N | N | N | | N | N | N |
| Balance c/d | XX | XX | XX | Balance b /f | X | X | |
| | | | | Cash | - | - | X |
| | | | | Share of profit | X | X | - |
| | XX | XX | | | XX | XX | XX |

Statement of Financial Position

As at 1st January, 20XX

| Capital Account | N | N | Fixed Assets | N | N |
|----------------------------|----|-----------|-----------------------|----|-----------|
| ABC | XX | | Freehold Premises | | XX |
| XYZ | XX | | Fixtures and fitting | | XX |
| KPK | XX | | Goodwill | | XX |
| | | XX | | | XX |
| Current Liabilities | | | Current Assets | | |
| Creditors | | XX | Inventory | | XX |
| | | | Debtors | XX | |
| | | | Less Prov. | X | XX |
| | | | Bank | | XX |
| | | | Cash | | XX |
| | | <u>XX</u> | | | <u>XX</u> |

(Lesson Plan on Think-Pair-Share Teaching Method) Week 6

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Think-Pair-Share

Duration: Two hours

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of dissolution
- b. state at least three reasons for dissolution of partnership
- c. state at least four rules for distribution of assets during dissolution of partnership

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|--------|------------------------------|---|--|
| Step I | Meaning of Dissolution of | The teacher defines dissolution of partnership as the coming to an end of a partnership agreement. It is the breakup of a partnership business. | Students in their small groups think and discuss on the meaning of partnership |

| | | | |
|----------|---|--|---|
| | partnership | | |
| Step II | Reasons for dissolution of partnership business | <p>The teacher expatiates on the reasons for the dissolution of partnership:</p> <ol style="list-style-type: none"> i. When one of the partners dies ii. The bankruptcy of a partner iii. A joint decision to discontinue the business iv. When the time fixed for the agreement has expired v. Retirement of a partner vi. Insolvency of the business | Students as an individual and in pairs think and discuss on the reasons for formation of partnership |
| Step III | Terminologies of Dissolution account | <p>Teacher briefly describes the following terminologies thus:</p> <ul style="list-style-type: none"> - Bankruptcy: this is when a person is unable to repay outstanding debts or obligations - Insolvency: this is a situation where a debtor that is, individual, business or corporate organisation cannot pay the debts they owe. - Realisation account: this is the account that is used to record the sales of assets and discharge of liabilities. It is a nominal | Students in their groups discuss amongst themselves and then share their findings with the larger class |

| | | | |
|---------|------------|--|--------------------------------------|
| | | <p>account.</p> <p>-Rules for distribution of assets during dissolution of partnership:</p> <ol style="list-style-type: none"> i. losses must be paid out of capital ii. payment of debts and liabilities to outside creditors iii. Settlement of partners' capital iv. Payment of partners' loan v. Any profit on the realisation must be divided in their profit sharing ratio. | |
| Step IV | Evaluation | <p>Teacher asks the following questions orally:</p> <ol style="list-style-type: none"> 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) terminologies in dissolution of partnership | Students answer the questions orally |

| | | | |
|---------|------------|--|---|
| Step V | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VI | Assignment | Teacher concludes the class giving the students reading assignment on the next topic practical question on dissolution account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Think-Pair-Share Teaching Method) Week 7

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Think-Pair-Share

Duration: Two hours

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. Prepare a complete account on realisation and dissolution of partnership using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|--------|-------------|--------------------------------|---|
| Step I | Items under | Teacher distributes a prepared | Students observe and ask relevant questions while |

| | | | |
|----------|--|--|---|
| | dissolution account | format of realisation account, cash book and capital account to the students | taking down the format. |
| Step II | Preparation of dissolution Account | Teacher distributes already prepared question to the students. The students will observe the question individually within a stipulated time frame after which, the teacher will pair them (2 persons per group) to critically think about the question within a stipulated time frame after which one person from the pair will share the answer with the whole class. At the point of presentation the teacher moderates excesses and deficiencies. | Student individually carried out the task and later pair up to share their solution within the stipulated time frame. |
| Step III | Evaluation | Teacher asks the following questions orally: 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) terminologies in dissolution of partnership | Students answer the questions orally |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic | Students copy the assignment as given by the teacher. |

| | | | |
|--|--|-----------------|---|
| | | company account | |
| | | | Students copy the assignment as given by the teacher. |

Format of Dissolution of Account for the year ended 31st December, 20XX

Realization Account

| | | | |
|-----------------------------|-----------|--------------------------|-----------|
| Book value of assets | N | Cash realised from sales | N |
| Debtors | X | Debtors | X |
| Plant and machinery | X | Furniture and fittings | X |
| Furniture and fittings | X | Inventory | X |
| Inventory | X | Plant and machinery | X |
| Cost of liquidation | X | Discount received | X |
| Share of Profit: | | Goodwill | X |
| ABC | X | | |
| XYZ | X | | |
| | XX | | XX |

Cashbook

| | | | |
|-----------------------------|-----------|---------------------|-----------|
| | N | | N |
| Balance b/f | X | Cost of liquidation | X |
| Realisation account: | | Creditors | X |
| Debtors | X | Loan | X |
| Plant and machinery | X | Capital: | |
| Furniture and fittings | X | ABC | X |
| Inventory | X | XYZ | X |
| | XX | | XX |

Capital Account

| | | | | | |
|-----------|------------|------------|-----------------|------------|------------|
| | ABC | XYZ | | ABC | XYZ |
| | N | N | | N | N |
| Cash book | XX | XX | Balance b /f | X | X |
| | | | Share of profit | X | X |
| | XX | XX | | XX | XX |

(Lesson Plan on Problem-Solving Teaching Method) Week 2

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Method of Teaching: Problem Solving Method

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of partnership
- b. state at least three reasons for formation of partnership
- c. list and explain the three kinds of partner

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|-------|---------|--------------------|--------------------|
| | | | |

| | | | |
|----------|--------------------------------------|---|---|
| Step I | Meaning of Partnership | The teacher defines partnership as the form of business where two or more people normally a maximum of twenty come together for profit purpose | Students were grouped and were asked to proffer a suitable definition of partnership. |
| Step II | Reasons for formation of partnership | Teacher explains that partnership business is formed for the purpose of i. Increasing the business capital which cannot be provided for by one person ii. Combining experience, knowledge and ability iv. Sharing business risk | Students were grouped and were asked to proffer a suitable definition of partnership. |
| Step III | Terminologies of Partnership account | Teacher briefly describes the following terminologies thus: - Appropriation Account: is the account used to distribute the yearly profit or loss among the partners according to the agreed policies - Current account: this is the account which records the financial transaction between the partners and the partnership during a given period e.g. salary, interest on capital, share of profits, drawings and interest on drawings - Fixed capital account: this is the initial amount of capital invested by each partners. - Partnership deed: this is refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Drawings: partners can withdraw at regular or irregular interval from the sum they are entitled to at the end of the year. - Interest on drawings: this is the amount charged on drawings made by the partners. | Students listen and ask questions where necessary. |

| | | | |
|-----------|------------|--|---|
| Step VI | Evaluation | Teacher asks the following questions orally: 1. What is partnership account? 2. what are reasons for the formation of partnership 3.state the types of partners in a partnership business | Students answer the questions orally |
| Step VII | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VIII | Assignment | Teacher concludes the class by giving the students reading assignment on the next topic Preparation of partnership Account | Students copy the assignment as given by the teacher. |

Lead City University Ibadan DO NOT COPY

(Lesson Plan on Problem-solving Teaching Method) Week 3

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Accounts

Method of Teaching: Problem-solving

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. mention at least four items contained in partnership deed
- b. state at least two reasons for preparing a partnership account
- c. Prepare a complete account of a partnership business using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|-----------|---|---|---|
| Step I | Items under partnership account | Teacher distributes a prepared format of partnership account to the students | Students observe and ask relevant questions while taking down the format. |
| Step II | Reasons for preparing Partnership Account | Teacher asked students to state the reasons for preparing a partnership account i. to ascertain the profit for the accounting period ii. to determine the share of profits that will be giving to each partner iii. to record the routine changes in the amount a business owes each partner iv. to track the amount taking from the business for personal use. | Students were grouped into smaller groups of 10 persons in a group in order to proffer solution to the question that was asked about the reasons for preparing partnership account. |
| Step III | Preparation of Partnership Account | Teacher distributes already prepared question to the students and facilitates. At the point of students' presentation the teacher moderates excesses and deficiencies. | The students observed the question and attempted it within a stipulated time frame after which, the teacher moderates and solve it after the students attempt. |
| Step IV | Evaluation | Teacher asks the following questions orally: 1. List at least five items in a partnership account 2. why do we prepare partnership account? | Students answer the questions orally |
| Step VII | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic. | Students copy notes as the teacher summarizes the lesson. |
| Step VIII | Assignment | Teacher concludes the class by giving the students reading assignment on the next topic Revaluation Account | Students copy the assignment as given by the teacher. |

Format of Partnership Account for the year ended 31st December, 20xx

ABC and XYZ

Income Statement

For the year ended 31st December, 20XX

| | N | N | N |
|-----------------------------|----|-----------|-----------|
| Sales | | | XX |
| Less: Return inwards | | | <u>X</u> |
| | | | XX |
| Opening inventory | | XX | |
| Add: Purchases | XX | | |
| Less: Return outwards | X | <u>XX</u> | |
| Cost of goods available | | XX | |
| Less: Closing inventory | | <u>X</u> | |
| Cost of goods sold | | | <u>XX</u> |
| Gross Profit | | | XX |
| Less Expenses: | | | |
| Rent | | X | |
| Rate | | X | |
| Electricity | | X | |
| General expenses | | X | |
| Carriage outwards | | X | |
| Bad debts | | X | |
| Salaries | | X | |
| Depreciation | | <u>X</u> | |
| | | | <u>XX</u> |
| Net profit c/d | | | <u>XX</u> |
| Net profit b/d | | | XX |
| Interest on capital account | | | |
| ABC | | X | |
| XYZ | | X | |
| Share of profit | | | |
| ABC | | X | |
| XYZ | | X | XX |

Partners Current Account

| | ABC | XYZ | | ABC | XYZ |
|-------------|------------|------------|---------------------|------------|------------|
| | N | N | | N | N |
| Balance c/d | XX | XX | Interest on capital | X | X |
| | | | Share of profit | X | X |
| | XX | XX | | XX | XX |

Statement of Financial Position

As at 31st December, 20XX

| Capital Account | N | N | Fixed Assets | N | N |
|------------------------|----------|-----------|-----------------------|-----------|----------|
| ABC | XX | | Plant & mach. | | XX |
| XYZ | XX | XX | Depreciation | | X |
| | | | | | XX |
| Current Account | | | Current Assets | | |
| ABC | XX | | Inventory | | XX |
| XYZ | XX | XX | Debtors | XX | |
| | | | Less Prov. | X | XX |
| Current Liabilities | | | Bank | | XX |
| Creditors | | XX | Cash | | XX |
| | | XX | | XX | |

(Lesson Plan on Problem-Solving Teaching Method) Week 4

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Problem-Solving

Duration: One hour

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of revaluation
- b. state at least three reasons for revaluation of assets
- c. explain at least three terminologies of Revaluation of Assets Account

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|----------|--------------------------------------|---|---|
| Step I | Meaning of Revaluation Account | The teacher explains the concept of revaluation as account prepared to show the increase or decrease in value of assets | Students were grouped and were asked to proffer a suitable definition of partnership. |
| Step II | Purpose of Revaluation Account | The teacher gives out the main purpose of revaluation account as to basically ascertain the increase or decrease in the value of assets of the business | Students were grouped and were asked to proffer suitable answers to the question. |
| Step III | Terminologies of Revaluation Account | <p>Teacher briefly describes the following terminologies thus:</p> <ul style="list-style-type: none"> - Revaluation: this is the process of valuing an already in existence asset for the purpose of determining the increase or decrease in its value - Change in profit sharing ratio: this is the situation where the agreed profit sharing ratio of partners changes as a result of a review agreed upon by the partners due to the admission of a new partner or retirement of an existing partner. - Opening capital: this is the initial capital invested or contributed by partners at the commencement of the partnership business. - Partnership deed: this is refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Current account: this is the account which records the financial transaction between the partners and the partnership during a given period e.g. salary, interest on capital, share of profits, drawings and interest on drawings - Fixed capital account: this is the initial amount of capital invested by each partners. | Students in their groups discuss amongst themselves and then share their findings with the larger class |

| | | | |
|---------|------------|--|---|
| Step IV | Evaluation | Teacher asks the following questions orally: 1. What is partnership account? 2. what are reasons for the formation of partnership 3. why do we prepare partnership account? | Students answer the questions orally |
| Step V | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VI | Assignment | Teacher concludes the class giving the students reading assignment on the next topic preparation of revaluation account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Problem-Solving Teaching Method) Week 5

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Problem-Solving

Duration: One hour

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. Prepare a complete account on revaluation using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|----------|------------------------------------|--|--|
| Step I | Items under Revaluation Account | Teacher distributes a prepared format of Revaluation Account to the students | Students observe and ask relevant questions. |
| Step II | Preparation of Revaluation Account | Teacher distributes already prepared question to the students and grouped them into ten groups in solving the question using work sheet. At the point of presentation the teacher moderates excesses and deficiencies. | Student in their groups carried out the task within the stipulated time frame. |
| Step III | Evaluation | Teacher asks the following questions orally: 1. What is partnership account? 2. what are reasons for the formation of partnership 3. why do we prepare partnership account? | Students answer the questions orally |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic dissolution of partnership account | Students copy the assignment as given by the teacher. |

Format of Revaluation Account for the year ended 31st December, 20XX

Closing Statement of Financial Position

As at 1st January, 20XX

| Capital Account | N | N | Fixed Assets | N | N |
|----------------------------|----|----|-----------------------|----|----|
| ABC | XX | | Freehold Premises | | XX |
| XYZ | XX | | Fixtures and fitting | | XX |
| | | | Goodwill | | XX |
| | | XX | | | XX |
| Current Liabilities | | | Current Assets | | |
| Creditors | | XX | Inventory | | XX |
| | | | Debtors | XX | |

| | | | |
|-----------|------------|---|-----------|
| | Less Prov. | X | XX |
| | Bank | | XX |
| | Cash | | XX |
| <u>XX</u> | | | <u>XX</u> |

| Revaluation | |
|------------------------------------|----|
| Account | |
| | N |
| Decrease in value of assets | |
| Fixtures and fittings | X |
| Inventory | X |
| Provision for bad debt | X |
| Share of profit: | |
| ABC | X |
| XYZ | X |
| | XX |
| | N |
| Increase in value of assets | |
| Freehold premises | X |
| Goodwill | X |
| | XX |

ABC, XYZ and KPK

Partners' Capital Account

| | ABC | XYZ | KPK | | ABC | XYZ | KPK |
|-------------|-----|-----|-----|-----------------|-----|-----|-----|
| | N | N | N | Balance b /f | N | N | N |
| Balance c/d | XX | XX | XX | Cash | - | - | X |
| | | | | Share of profit | X | X | - |
| | XX | XX | | | XX | XX | XX |

Statement of Financial Position

As at 1st January, 20XX

| Capital Account | N | N | Fixed Assets | N | N |
|----------------------------|----|----|-----------------------|---|----|
| ABC | XX | | Freehold Premises | | XX |
| XYZ | XX | | Fixtures and fitting | | XX |
| KPK | XX | | Goodwill | | XX |
| | | XX | | | XX |
| Current Liabilities | | | Current Assets | | |

| | | | | |
|-----------|-----------|------------|----|-----------|
| Creditors | XX | Inventory | | XX |
| | | Debtors | XX | |
| | | Less Prov. | X | XX |
| | | Bank | | XX |
| | | Cash | | XX |
| | <u>XX</u> | | | <u>XX</u> |

(Lesson Plan on Problem-Solving Teaching Method) Week 6

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name: University of Lagos

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Problem-solving method

Duration: One hour

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- define the concept of dissolution
- state at least three reasons for dissolution of partnership
- state at least four rules for distribution of assets during dissolution of partnership

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|----------|---|--|---|
| Step I | Meaning of Dissolution of partnership Account | The teacher defines dissolution of partnership as the coming to an end of a partnership agreement. It is the breakup of a partnership business. | Students were grouped and were asked to proffer a suitable definition of dissolution of partnership.. |
| Step II | Purpose of dissolution of partnership | The teacher expatiates on the reasons for the dissolution of partnership: i. When one of the partners dies ii. The bankruptcy of a partner iii. A joint decision to discontinue the business iv. When the time fixed for the agreement has expired v. Retirement of a partner vi. Insolvency of the business | Students were grouped and were asked to proffer suitable answers to the question. |
| Step III | Terminologies of dissolution of partnership Account | Teacher briefly describes the following terminologies thus: - Bankruptcy: this is when a person is unable to repay outstanding debts or obligations - Insolvency: this is a situation where a debtor that is, | Students in their groups discuss amongst themselves and then share their findings with the larger class |

| | | | |
|---------|--|--|--|
| | | <p>individual, business or corporate organisation cannot pay the debts they owe.</p> <p>-Realisation account: this is the account that is used to record the sales of assets and discharge of liabilities. It is a nominal account.</p> <p>-Rules for distribution of assets during dissolution of partnership:</p> <ol style="list-style-type: none"> i. losses must be paid out of capital ii. payment of debts and liabilities to outside creditors iii. Settlement of partners' capital iv. Payment of partners' loan v. Any profit on the realisation must be divided in their profit sharing ratio. | |
| Step IV | Items under dissolution of partnership account | Teacher distributes a prepared format of realisation account, cash book to the students | Students observe and ask relevant questions. |

| | | | |
|----------|------------|--|---|
| Step V | Evaluation | <p>Teacher asks the following questions orally:</p> <ol style="list-style-type: none"> 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) terminologies in dissolution of partnership | Students answer the questions orally |
| Step VI | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VII | Assignment | Teacher concludes the class giving the students reading assignment on the next topic practical question on dissolution account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Problem-Solving Teaching Method) Week 7

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name: University of Lagos

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Problem-solving method

Duration: One hour

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. Prepare a complete account on realisation and dissolution of partnership using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|----------|--|---|--|
| Step I | Items under dissolution of partnership account | Teacher distributes a prepared format of realisation account, cash book to the students | Students in their groups observe and ask relevant questions. |
| Step II | Preparation of Dissolution Account | Teacher distributes already prepared question to the students and groups them into ten groups in solving the question using work sheet. At the point of presentation the teacher moderates excesses and deficiencies. | Student in their groups carried out the task and within the stipulated time frame. |
| Step III | Evaluation | Teacher asks the following questions orally: 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) | Students answer the questions orally |

| | | | |
|---------|------------|--|---|
| | | terminologies in dissolution of partnership | |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic company account | Students copy the assignment as given by the teacher. |

Format of Dissolution of Account for the year ended 31st December, 20XX

Realization Account

| | | | |
|-----------------------------|-----------|--------------------------|-----------|
| Book value of assets | N | Cash realised from sales | N |
| Debtors | X | Debtors | X |
| Plant and machinery | X | Furniture and fittings | X |
| Furniture and fittings | X | Inventory | X |
| Inventory | X | Plant and machinery | X |
| Cost of liquidation | X | Discount received | X |
| Share of Profit: | | Goodwill | X |
| ABC | X | | |
| XYZ | X | | |
| | <u>XX</u> | | <u>XX</u> |

Cashbook

| | | | |
|-----------------------------|-----------|---------------------|-----------|
| | N | | N |
| Balance b/f | X | Cost of liquidation | X |
| Realisation account: | | Creditors | X |
| Debtors | X | Loan | X |
| Plant and machinery | X | Capital: | |
| Furniture and fittings | X | ABC | X |
| Inventory | X | XYZ | X |
| | <u>XX</u> | | <u>XX</u> |

| Capital Account | | | | | |
|------------------------|------------|------------|-----------------|------------|------------|
| | ABC | XYZ | | ABC | XYZ |
| | N | N | | N | N |
| Cash book | XX | XX | Balance b /f | X | X |
| | | | Share of profit | X | X |
| | XX | XX | | XX | XX |

(Lesson Plan on Lecture Method) Week 2

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of partnership
- b. state at least three reasons for formation of partnership
- c. list and explain the three kinds of partner

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|--------------------------------------|---|--|
| Step I | Meaning of Partnership | The teacher defines partnership as the form of business where two or more people normally a maximum of twenty come together for profit purpose | Students listen and copy notes, into their notebooks |
| Step II | Reasons for formation of partnership | Teacher explains that partnership business is formed for the purpose of v. Increasing the business capital which cannot be provided for by one person vi. Combining experience, knowledge and ability vii. Sharing business risk | Students copy notes. |

| | | | |
|-------------|--------------------------------------|---|---|
| Step III | Terminologies of Partnership account | <p>Teacher briefly describes the following terminologies thus:</p> <ul style="list-style-type: none"> - Appropriation Account: is the account used to distribute the yearly profit or loss among the partners according to the agreed policies - Current account: this is the account which records the financial transaction between the partners and the partnership during a given period e.g. salary, interest on capital, share of profits, drawings and interest on drawings - Fixed capital account: this is the initial amount of capital invested by each partners. - Partnership deed: this is refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Drawings: partners can withdraw at regular or irregular interval from the sum they are entitled to at the end of the year. - Interest on drawings: this is the amount charged on drawings made by the partners. | Students listen and ask questions where necessary. |
| Step IV | Evaluation | <p>Teacher asks the following questions orally:</p> <ol style="list-style-type: none"> 1. What is partnership account? 2. what are reasons for the formation of partnership 3. state the types of partners in a partnership business | Students answer the questions orally |
| Step V | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VI | Assignment | Teacher concludes the class giving the students reading assignment on the next topic preparation of partnership account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Lecture Method) Week 3

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Income Statement, Appropriation Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. mention at least four items contained in partnership deed
- b. state at least two reasons for preparing a partnership account
- c. Prepare a complete account of a partnership business using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Concepts & Practices of Accounting by B. R. Yusuf and Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught final account of a sole trader

Introduction: The teacher introduces the lesson by reviewing the knowledge of final account of a sole trader and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|------------------------------------|--|--|
| Step I | Items under partnership account | Teacher distributes a prepared format of partnership account to the students | Students observe and ask relevant questions. |
| Step II | Preparation of partnership Account | Teacher distributes already prepared question to the students and solve the question on the white maker board. | Students pay attention and copy the solution into their notes. |

| | | | |
|----------|------------|--|---|
| Step III | Evaluation | Teacher asks the following questions orally: 1. What is partnership account? 2. what are reasons for the formation of partnership 3. why do we prepare partnership account? | Students answer the questions orally |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic revaluation account | Students copy the assignment as given by the teacher. |

Format of Partnership Account for the year ended 31st December, 20xx

ABC and XYZ

Income Statement

For the year ended 31st December, 20XX

| | | | |
|-----------------------|----|-----------|----------|
| | N | N | N |
| Sales | | | XX |
| Less: Return inwards | | | <u>X</u> |
| | | | XX |
| Opening inventory | | XX | |
| Add: Purchases | XX | | |
| Less: Return outwards | X | <u>XX</u> | |

| | | |
|-------------------------|----------|-----------|
| Cost of goods available | XX | |
| Less: Closing inventory | <u>X</u> | |
| Cost of goods sold | | <u>XX</u> |
| Gross Profit | | XX |

Less Expenses:

| | | |
|-------------------|----------|-----------|
| Rent | X | |
| Rate | X | |
| Electricity | X | |
| General expenses | X | |
| Carriage outwards | X | |
| Bad debts | X | |
| Salaries | X | |
| Depreciation | <u>X</u> | |
| | | <u>XX</u> |
| Net profit c/d | | <u>XX</u> |

Net profit b/d

XX

Interest on capital account

| | | |
|-----------------|---|-----------|
| ABC | X | |
| XYZ | X | |
| Share of profit | | |
| ABC | X | |
| XYZ | X | <u>XX</u> |

Partners Current Account

| | ABC | XYZ | | ABC | XYZ |
|-------------|-----------|-----------|---------------------|-----------|-----------|
| | N | N | | N | N |
| Balance c/d | XX | XX | Interest on capital | X | X |
| | | | Share of profit | X | X |
| | XX | XX | | XX | XX |

**Statement of Financial Position
As at 31st December, 20XX**

| | | | | | |
|------------------------|----|----|---------------------|---|----|
| Capital Account | N | N | Fixed Assets | N | N |
| ABC | XX | | Plant & mach. | | XX |
| XYZ | XX | XX | Depreciation | | X |

| | | | | | |
|------------------------|----|-----------|-----------------------|-----------|----|
| | | | | | XX |
| Current Account | | | Current Assets | | |
| ABC | XX | | Inventory | | XX |
| XYZ | XX | XX | Debtors | XX | |
| | | | Less Prov. | X | XX |
| Current Liabilities | | | Bank | | XX |
| Creditors | | XX | Cash | | XX |
| | | XX | | XX | |

(Lesson Plan on Lecture Method) Week 4

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of revaluation
- b. state at least three reasons for revaluation of assets

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|--------------------------------|---|--|
| Step I | Meaning of Revaluation Account | The teacher explains the concept of revaluation as account prepared to show the increase or decrease in value of assets | Students listen and copy notes, into their notebooks |
| Step II | Purpose of | The teacher gives out the main purpose of revaluation account as to basically ascertain the increase or decrease in | Students copy notes. |

| | | | |
|----------|--------------------------------------|--|---|
| | Revaluation Account | the value of assets of the business | |
| Step III | Terminologies of Revaluation Account | <p>Teacher briefly describes the following terminologies thus:</p> <ul style="list-style-type: none"> - Revaluation: this is the process of valuing an already in existence asset for the purpose of determining the increase or decrease in its value - Change in profit sharing ratio: this is the situation where the agreed profit sharing ratio of partners changes as a result of a review agreed upon by the partners due to the admission of a new partner or retirement of an existing partner. - Opening capital: this is the initial capital invested or contributed by partners at the commencement of the partnership business. - Partnership deed: this is refers to partnership agreement. It is the written agreement made by partners specifying the terms of formation, operation and dissolution of the partnership. - Fixed capital account: this is the initial amount of capital invested by each partners. | Students listen and ask questions where necessary. |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class by giving the students reading assignment on the next topic preparation of dissolution account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Lecture Method) Week 5

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Revaluation Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Revaluation of Assets Account, Partners' Capital and Current Account and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. Prepare a complete account on revaluation using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|---------|------------------------------------|---|--|
| Step I | Items under revaluation account | Teacher distributes a prepared format of revaluation account to the students | Students observe and ask relevant questions. |
| Step II | Preparation of Revaluation Account | Teacher distributes already prepared question to the students and solve the question on the white | Students pay attention and copy the solution into their notes. |

| | | | |
|----------|------------|--|---|
| | | maker board. | |
| Step III | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step IV | Assignment | Teacher concludes the class by giving the students reading assignment on the next topic dissolution of partnership account | Students copy the assignment as given by the teacher. |

Format of Revaluation Account for the year ended 31st December, 20XX

**Closing Statement of Financial Position
As at 1st January, 20XX**

| Capital Account | N | N | Fixed Assets | N | N |
|----------------------------|----|----|-----------------------|----|----|
| ABC | XX | | Freehold Premises | | XX |
| XYZ | XX | | Fixtures and fitting | | XX |
| | | XX | Goodwill | | XX |
| | | | | | XX |
| Current Liabilities | | | Current Assets | | |
| Creditors | | XX | Inventory | | XX |
| | | | Debtors | XX | |
| | | | Less Prov. | X | XX |
| | | | Bank | | XX |
| | | | Cash | | XX |
| | | XX | | | XX |

Revaluation

| Account | N | N |
|------------------------------------|---|------------------------------------|
| Decrease in value of assets | | Increase in value of assets |
| Fixtures and fittings | X | Freehold premises |
| Inventory | X | Goodwill |
| Provision for bad debt | X | |
| Share of profit: | | |

| | | | |
|-----|----|--|-----|
| ABC | X | | |
| XYZ | X | | --- |
| | XX | | XX |

ABC, XYZ and KPK

Partners' Capital Account

| | ABC | XYZ | KPK | | ABC | XYZ | KPK |
|-------------|-----|-----|-----|-----------------|-----|-----|-----|
| | N | N | N | | N | N | N |
| Balance c/d | XX | XX | XX | Balance b /f | X | X | |
| | | | | Cash | - | - | X |
| | | | | Share of profit | X | X | - |
| | XX | XX | | | XX | XX | XX |

Statement of Financial Position

As at 1st January, 20XX

| | ABC | XYZ | KPK | | ABC | XYZ | KPK |
|----------------------------|-----|-----|-----|-----------------------|-----|-----|-----|
| Capital Account | N | N | | Fixed Assets | N | | N |
| ABC | XX | | | Freehold Premises | | | XX |
| XYZ | XX | | | Fixtures and fitting | | | XX |
| KPK | XX | | | Goodwill | | | XX |
| | | XX | | | | | XX |
| Current Liabilities | | | | Current Assets | | | |
| Creditors | | XX | | Inventory | | | XX |
| | | | | Debtors | XX | | |
| | | | | Less Prov. | X | | XX |
| | | | | Bank | | | XX |
| | | | | Cash | | | XX |
| | | XX | | | | | XX |

(Lesson Plan on Lecture Method) Week 6

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. define the concept of dissolution
- b. state at least three reasons for dissolution of partnership
- c. state at least four rules for distribution of assets during dissolution of partnership
- d. Prepare a complete account on realisation and dissolution of partnership using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|----------|---|--|--|
| Step I | Meaning of Dissolution of partnership | The teacher defines dissolution of partnership as the coming to an end of a partnership agreement. It is the breakup of a partnership business. | Students listen and copy notes, into their notebooks |
| Step II | Purpose of dissolution of partnership | The teacher expatiates on the reasons for the dissolution of partnership: i. When one of the partners dies ii. The bankruptcy of a partner iii. A joint decision to discontinue the business iv. When the time fixed for the agreement has expired v. Retirement of a partner vi. Insolvency of the business | Students listen and copy notes. |
| Step III | Terminologies of dissolution of partnership | Teacher briefly describes the following terminologies thus: - Bankruptcy: this is when a person is unable to repay outstanding debts or obligations - Insolvency: this is a situation where a debtor that is, individual, business or corporate organisation cannot pay the debts they owe. - Realisation account: this is the account that is used to record | Students listen and ask questions where necessary. |

| | | | |
|---------|------------|--|--------------------------------------|
| | | <p>the sales of assets and discharge of liabilities. It is a nominal account.</p> <p>-Rules for distribution of assets during dissolution of partnership:</p> <ol style="list-style-type: none"> i. losses must be paid out of capital ii. payment of debts and liabilities to outside creditors iii. Settlement of partners' capital iv. Payment of partners' loan v. Any profit on the realisation must be divided in their profit sharing ratio. | |
| Step IV | Evaluation | <p>Teacher asks the following questions orally:</p> <ol style="list-style-type: none"> 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) terminologies in dissolution of partnership | Students answer the questions orally |

| | | | |
|-------------|------------|---|---|
| Step V | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step VII | Assignment | Teacher concludes the class giving the students reading assignment on the next topic preparation of dissolution account | Students copy the assignment as given by the teacher. |

(Lesson Plan on Lecture Method) Week 7

Name of Teacher: ORE, Elizabeth

Reg. Number: LCU/PG/002698

Subject Combination: Business Education

University Name:

Class: 200-level

Average Age: 18 years

Subject: Financial Accounting II

Topic: Partnership Account

Sub-Topic: Dissolution of Partnership Account

Method of Teaching: Lecture Method

Duration: One hour

General Objective: To teach students how to prepare Realisation Account, Cash book, Partners' Capital and Statement of Financial Position

Behavioural Objectives: At the end of the lesson, students should be able to:

- a. Prepare a complete account on realisation and dissolution of partnership using work sheet

Instructional Materials: Visual material (real object with white-marker board)

Reference Material: Essential Financial Accounting Textbook for SSCE by O. A. Longe and R. A. Kazeem

Previous knowledge: Students have been taught partnership account

Introduction: The teacher introduces the lesson by reviewing the knowledge of partnership account and relates it with the partnership account which is the new topic

Presentation: The teacher will present the lesson through the following steps:

| Steps | Content | Teacher's Activity | Student's Activity |
|--------|----------------------------|---|--|
| Step I | Items under dissolution of | Teacher distributes a prepared format of dissolution of | Students observe and ask relevant questions. |

| | | | |
|----------|--|--|---|
| | partnership account | partnership account to the students | |
| Step II | Preparation of Profit and loss Account | Teacher distributes already prepared question to the students and solve the question on the white maker board. | Students copy the solution. |
| Step III | Evaluation | Teacher asks the following questions orally: 1. What is dissolution of partnership? 2. What are the reasons for the dissolution of partnership? 3. Mention at least three (3) terminologies in dissolution of partnership | Students answer the questions orally |
| Step IV | Summary | Teacher summarizes the lesson emphasizing on the main points of the topic | Students copy notes as the teacher summarizes the lesson. |
| Step V | Assignment | Teacher concludes the class giving the students reading assignment on the next topic company account | Students copy the assignment as given by the teacher. |

Format of Dissolution of Account for the year ended 31st December, 20XX

Realization Account

| | | | |
|-----------------------------|-----------|--------------------------|-----------|
| Book value of assets | N | Cash realised from sales | N |
| Debtors | X | Debtors | X |
| Plant and machinery | X | Furniture and fittings | X |
| Furniture and fittings | X | Inventory | X |
| Inventory | X | Plant and machinery | X |
| Cost of liquidation | X | Discount received | X |
| Share of Profit: | | Goodwill | X |
| ABC | X | | |
| XYZ | X | | |
| | XX | | XX |

Cashbook

| | | | |
|-----------------------------|-----------|---------------------|-----------|
| | N | | N |
| Balance b/f | X | Cost of liquidation | X |
| Realisation account: | | Creditors | X |
| Debtors | X | Loan | X |
| Plant and machinery | X | Capital: | |
| Furniture and fittings | X | ABC | X |
| Inventory | X | XYZ | X |
| | XX | | XX |

Capital Account

| | ABC | XYZ | | ABC | XYZ |
|-----------|-----------|-----------|-----------------|-----------|-----------|
| | N | N | | N | N |
| Cash book | XX | XX | Balance b /f | X | X |
| | | | Share of profit | X | X |
| | XX | XX | | XX | XX |

Appendix VII

Computation of Results from SPSS Analysis

Gender * Strategy Cross tabulation

Count

| | | Strategy | | | Total |
|--------|--------|----------|-----|-----|-------|
| | | LMT | TPS | PSM | |
| Gender | Male | 60 | 17 | 31 | 108 |
| | Female | 133 | 62 | 81 | 276 |
| Total | | 193 | 79 | 112 | 384 |

Report

| | Mean | N | Std. Deviation |
|------------------------|---------|-----|----------------|
| Lecture Method | 38.0570 | 193 | 11.80271 |
| Think-Pair-Share | 44.3671 | 79 | 12.69381 |
| Problem Solving Method | 53.1339 | 112 | 12.04608 |

Report

| | Mean | N | Std. Deviation |
|------------------------|---------|-----|----------------|
| Lecture Method | 41.9378 | 193 | 11.86057 |
| Think-Pair-Share | 51.5949 | 79 | 14.16435 |
| Problem Solving Method | 59.7000 | 110 | 12.52414 |

Report

| Strategy | | Pre-test scores | Post test scores |
|----------|----------------|-----------------|------------------|
| LMT | Mean | 38.0570 | 41.9378 |
| | N | 193 | 193 |
| | Std. Deviation | 11.80271 | 11.86057 |
| TPS | Mean | 44.3671 | 51.5949 |
| | N | 79 | 79 |
| | Std. Deviation | 12.69381 | 14.16435 |
| PSM | Mean | 53.1339 | 59.6161 |
| | N | 112 | 112 |
| | Std. Deviation | 12.04608 | 12.44465 |
| Total | Mean | 43.7526 | 49.0807 |

| | | |
|----------------|----------|----------|
| N | 384 | 384 |
| Std. Deviation | 13.66988 | 14.68792 |

Report

| | Mean | N | Std. Deviation |
|------------------|---------|-----|----------------|
| Pre-test scores | 43.7526 | 384 | 13.66988 |
| Post-test scores | 49.0807 | 384 | 14.68792 |

| | | Problem Solving | | | | |
|----------------|------------|-----------------|----------------|------------------|----------|--------|
| | | Method | Lecture Method | Think-Pair-Share | Strategy | Gender |
| N | Statistic | 110 | 193 | 79 | 384 | 384 |
| Minimum | Statistic | 25.00 | 10.00 | 20.00 | 1.00 | 1.00 |
| Maximum | Statistic | 85.00 | 85.00 | 90.00 | 3.00 | 2.00 |
| Mean | Statistic | 59.7000 | 41.9378 | 51.5949 | 1.7891 | 1.7188 |
| Std. Deviation | Statistic | 12.52414 | 11.86057 | 14.16435 | .86703 | .45020 |
| Skewness | Statistic | -.289 | .273 | .106 | .422 | -.977 |
| | Std. Error | .230 | .175 | .271 | .125 | .125 |
| Kurtosis | Statistic | .056 | .529 | -.223 | -1.542 | -1.051 |
| | Std. Error | .457 | .348 | .535 | .248 | .248 |

Corrected Summary Table

Level of Academic Achievement

| <i>Category</i> | Score Range | Number of Scores | Mean scores | Standard Deviation |
|-----------------------------|--------------------|-------------------------|--------------------|---------------------------|
| <i>Low Achievement</i> | 0-49 | 185 | 36.75675 | 7.7410 |
| <i>Moderate Achievement</i> | 50-69 | 154 | 56.40909 | 5.4552 |
| <i>High Achievement</i> | 70-100 | 45 | 74.66666 | 5.2656 |
| <i>Total</i> | | 384 | 167.8325 | 18.461 |

Paired Samples Statistics H₀₁

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|------------------|---------|----|----------------|-----------------|
| Pair 1 | Think-Pair-Share | 51.5949 | 79 | 14.16435 | 1.59361 |
| | Lecture Method | 40.7595 | 79 | 11.61036 | 1.30627 |

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|--------------------------------------|--------------------|----------------|-----------------|---|----------|-------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Think-Pair-Share - Lecture Method | 10.83544 | 17.44767 | 1.96302 | 6.92738 | 14.74351 | 5.520 | 78 | .000 |

Paired Samples Effect Sizes

| | | Standardizer ^a | Point Estimate | 95% Confidence Interval | |
|--------|--------------------------------------|--------------------------------|----------------|-------------------------|-------|
| | | | | Lower | Upper |
| Pair 1 | Think-Pair-Share - Lecture Method | Cohen's d 17.44767 | .621 | .378 | .860 |
| | | Hedges' correction 17.53212 | .618 | .377 | .856 |

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Paired Samples Statistics H₀₁

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|------------------------|---------|-----|----------------|-----------------|
| Pair 1 | Problem Solving Method | 59.7000 | 110 | 12.52414 | 1.19413 |
| | Lecture Method | 40.8545 | 110 | 10.88036 | 1.03740 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|--|-----|-------------|------|
| Pair 1 | Problem Solving Method & Lecture Method | 110 | -.092 | .339 |

Paired Samples Test

| | | Paired Differences | | | | t | df | Sig. (2-tailed) | |
|--------|---|--------------------|----------------|-----------------|--|----------|--------|-----------------|------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower Upper | | | | |
| Pair 1 | Problem Solving Method - Lecture Method | 18.84545 | 17.33014 | 1.65236 | 15.57052 | 22.12039 | 11.405 | 109 | .000 |

Paired Samples Effect Sizes

| | | Standardizer ^a | Point Estimate | 95% Confidence Interval | |
|--------|---|---------------------------|----------------|-------------------------|------------|
| | | | | Lower | Upper |
| Pair 1 | Problem Solving Method - Lecture Method | Cohen's d | 17.33014 | 1.087 | .850 1.322 |
| | | Hedges' correction | 17.39005 | 1.084 | .847 1.317 |

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Descriptive H₀₃

Academic Achievement

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|------------------|-----|---------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | | | | Lower Bound | Upper Bound | | |
| Lecture Method | 193 | 41.9378 | 11.86057 | .85374 | 40.2539 | 43.6217 | 10.00 | 85.00 |
| Think-pair-share | 79 | 51.5949 | 14.16435 | 1.59361 | 48.4223 | 54.7676 | 20.00 | 90.00 |
| Problem solving | 112 | 59.7500 | 12.45713 | 1.17709 | 57.4175 | 62.0825 | 25.00 | 85.00 |
| Total | 384 | 49.1198 | 14.71917 | .75113 | 47.6429 | 50.5967 | 10.00 | 90.00 |

ANOVA

Academic Achievement

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|--------|------|
| Between Groups | 23095.198 | 2 | 11547.599 | 73.470 | .000 |
| Within Groups | 59883.292 | 381 | 157.174 | | |
| Total | 82978.490 | 383 | | | |

ANOVA Effect Sizes^a

| | | Point Estimate | 95% Confidence Interval | |
|----------------------|-----------------------------|----------------|-------------------------|-------|
| | | | Lower | Upper |
| Academic Achievement | Eta-squared | .278 | .204 | .345 |
| | Epsilon-squared | .275 | .200 | .341 |
| | Omega-squared Fixed-effect | .274 | .200 | .341 |
| | Omega-squared Random-effect | .159 | .111 | .205 |

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Academic Achievement

LSD

| (I) Strategy | (J) Strategy | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------|--------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| LMT | TPS | -9.65711* | 1.67449 | .000 | -12.9495 | -6.3647 |
| | PSM | -17.81218* | 1.48920 | .000 | -20.7403 | -14.8841 |
| TPS | LMT | 9.65711* | 1.67449 | .000 | 6.3647 | 12.9495 |
| | PSM | -8.15506* | 1.84198 | .000 | -11.7768 | -4.5333 |
| PSM | LMT | 17.81218* | 1.48920 | .000 | 14.8841 | 20.7403 |
| | TPS | 8.15506* | 1.84198 | .000 | 4.5333 | 11.7768 |

*. The mean difference is significant at the 0.05 level.

```
UNIANOVA Academic_Achievement BY Gender Teaching_Strategies
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/PLOT=PROFILE(Teaching_Strategies*Gender Gender*Teaching_Strategies) TYPE=LINE ERRORBAR=NO
  MEANREFERENCE=NO YAXIS=AUTO
/EMMEANS=TABLES(Gender*Teaching_Strategies)
/PRINT DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=Gender Teaching_Strategies Gender*Teaching_Strategies.
```

Univariate Analysis of Variance

Notes

| | |
|----------------|----------------------|
| Output Created | 19-AUG-2024 20:16:52 |
| Comments | |

| | | |
|------------------------|--------------------------------|---|
| Input | Data | C:\Users\USER\Documents\Orefuwa PhD Data.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 384 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on all cases with valid data for all variables in the model. |
| Syntax | | UNIANOVA Academic_Achievement BY Gender Teaching_Strategies /METHOD=SSTYPE(3) /INTERCEPT=INCLUDE /PLOT=PROFILE(Teaching_Strategies*Gender Gender*Teaching_Strategies) TYPE=LINE ERRORBAR=NO MEANREFERENCE=NO YAXIS=AUTO /EMMEANS=TABLES(Gender*Teaching_Strategies) /PRINT DESCRIPTIVE /CRITERIA=ALPHA(.05) /DESIGN=Gender Teaching_Strategies Gender*Teaching_Strategies. |
| Resources | Processor Time | 00:00:01.78 |
| | Elapsed Time | 00:00:00.62 |

Between-Subjects Factors

| | | Value Label | N |
|--------|------|-------------|-----|
| Gender | 1.00 | Male | 108 |
| | 2.00 | Female | 276 |

| | | | |
|---------------------|------|------------------|-----|
| Teaching Strategies | 1.00 | Lecture Method | 193 |
| | 2.00 | Think-pair-share | 79 |
| | 3.00 | Problem solving | 112 |

Descriptive Statistics H₀₄

Dependent Variable: Academic Achievement

| Gender | Teaching Strategies | Mean | Std. Deviation | N |
|--------|---------------------|---------|----------------|-----|
| Male | Lecture Method | 40.2500 | 12.47455 | 60 |
| | Think-pair-share | 53.8235 | 12.81228 | 17 |
| | Problem solving | 61.5484 | 11.95781 | 31 |
| | Total | 48.5000 | 15.57046 | 108 |
| Female | Lecture Method | 42.6992 | 11.54043 | 133 |
| | Think-pair-share | 50.9839 | 14.55064 | 62 |
| | Problem solving | 59.0617 | 12.64748 | 81 |
| | Total | 49.3623 | 14.39441 | 276 |
| Total | Lecture Method | 41.9378 | 11.86057 | 193 |
| | Think-pair-share | 51.5949 | 14.16435 | 79 |
| | Problem solving | 59.7500 | 12.45713 | 112 |
| | Total | 49.1198 | 14.71917 | 384 |

Tests of Between-Subjects Effects

Dependent Variable: Academic Achievement

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|------------------------------|-------------------------|-----|-------------|----------|------|
| Corrected Model | 23589.446 ^a | 5 | 4717.889 | 30.028 | .000 |
| Intercept | 661533.957 | 1 | 661533.957 | 4210.538 | .000 |
| Gender | 57.586 | 1 | 57.586 | .367 | .545 |
| Teaching Strategies | 21437.915 | 2 | 10718.958 | 68.224 | .000 |
| Gender * Teaching Strategies | 493.493 | 2 | 246.747 | 1.570 | .209 |
| Error | 59389.043 | 378 | 157.114 | | |
| Total | 1009476.000 | 384 | | | |
| Corrected Total | 82978.490 | 383 | | | |

a. R Squared = .284 (Adjusted R Squared = .275)

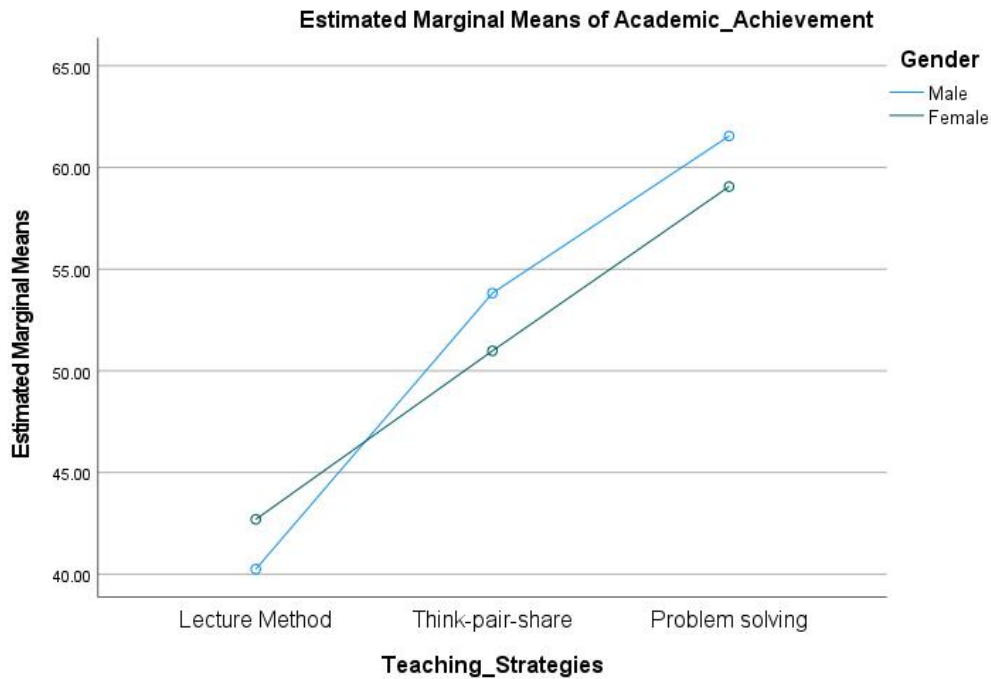
Estimated Marginal Means

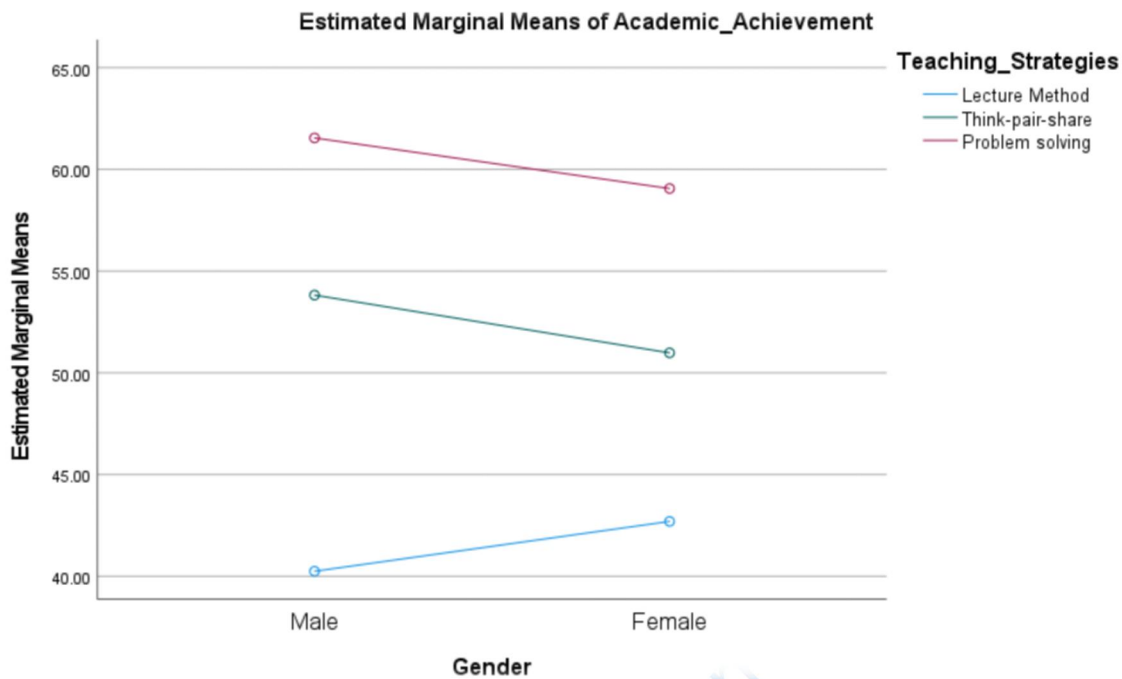
Gender * Teaching Strategies

Dependent Variable: Academic Achievement

| Gender | Teaching Strategies | Mean | Std. Error | 95% Confidence Interval | |
|--------|---------------------|--------|------------|-------------------------|-------------|
| | | | | Lower Bound | Upper Bound |
| Male | Lecture Method | 40.250 | 1.618 | 37.068 | 43.432 |
| | Think-pair-share | 53.824 | 3.040 | 47.846 | 59.801 |
| | Problem solving | 61.548 | 2.251 | 57.122 | 65.975 |
| Female | Lecture Method | 42.699 | 1.087 | 40.562 | 44.836 |
| | Think-pair-share | 50.984 | 1.592 | 47.854 | 54.114 |
| | Problem solving | 59.062 | 1.393 | 56.323 | 61.800 |

Profile Plots





Multiple Comparisons

Dependent Variable: Academic_Achievement

Tukey HSD

| (I) Teaching Strategies | (J) Teaching Strategies | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|-------------------------|-------------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Lecture Method | Think-pair-share | -9.6571* | 1.67417 | .000 | -13.5964 | -5.7178 |
| | Problem solving | -17.8122* | 1.48891 | .000 | -21.3156 | -14.3088 |
| Think-pair-share | Lecture Method | 9.6571* | 1.67417 | .000 | 5.7178 | 13.5964 |
| | Problem solving | -8.1551* | 1.84163 | .000 | -12.4884 | -3.8217 |
| Problem solving | Lecture Method | 17.8122* | 1.48891 | .000 | 14.3088 | 21.3156 |
| | Think-pair-share | 8.1551* | 1.84163 | .000 | 3.8217 | 12.4884 |

Based on observed means.

The error term is Mean Square(Error) = 157.114.

*. The mean difference is significant at the .05 level.

T-Test

**H05
Notes**

| | | |
|------------------------|--------------------------------|--|
| Output Created | | 20-AUG-2024 00:00:16 |
| Comments | | |
| Input | Data | C:\Users\USER\Documents\Orefuwa PhD Data.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 384 |
| Missing Value Handling | Definition of Missing | User defined missing values are treated as missing. |
| | Cases Used | Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis. |
| Syntax | | T-TEST PAIRS=Pretestscores WITH Postestscores (PAIRED) /ES DISPLAY(TRUE) STANDARDIZER(SD) /CRITERIA=CI(.9500) /MISSING=ANALYSIS. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.02 |

Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|------------------|---------|-----|----------------|-----------------|
| Pair 1 | Pretest scores | 43.7526 | 384 | 13.66988 | .69759 |
| | Post-test scores | 49.0807 | 384 | 14.68792 | .74954 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|-------------------------------|-----|-------------|------|
| Pair 1 | Pretestscores & Postestscores | 384 | .540 | .000 |

Paired Samples Test

| | | Mean | Std. Deviation | Std. Error | Paired Differences | | t | df | Sig. (2-tailed) |
|--------|------------------------------------|----------|----------------|------------|---|----------|--------|-----|-----------------|
| | | | | | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Pre test scores – Post test scores | -5.32812 | 13.63231 | .69567 | -6.69594 | -3.96031 | -7.659 | 383 | .000 |

Paired Samples Effect Sizes

| | | Standardizer ^a | Point Estimate | 95% Confidence Interval | |
|--------|------------------------------------|---------------------------|----------------|-------------------------|-------|
| | | | | Lower | Upper |
| Pair 1 | Pre test scores – Post test scores | Cohen's d | 13.63231 | -.391 | -.287 |
| | | Hedges' correction | 13.64567 | -.390 | -.287 |

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Bio-data

A. Personal Data

1. Name Elizabeth Remilekun ORE

2. Faculty/Department Education/Educational Management

3. **Date of Birth** 05/02/1988

4. **Sex** Female

5. **Nationality** Nigerian

6. **State of Origin/Local Government Area** Ogun/Ijebu East

7. **Marital Status** Married

8. **Number and Ages of Children Number** (3); Ages (5, 6, 8)

9. **Residential Address** D17 Post Service Housing Estate Iba

10. **Address for Correspondence** Lagos State University, Ojo

11. **Phone Number(s)** 08069803858, 08083322577

12. **Email Address** elizabethremilekun@gmail.com

B. Educational Institutions Attended with Dates

| Dates | Institutions |
|--------------|-----------------------------|
| 2019-2021 | Lagos State University |
| 2018-2019 | University of Lagos |
| 2012-2016 | Lagos State University, Ojo |
| 1999-2005 | Community Secondary School |

C. Work Experience with Date

| Dates | Organsation |
|--------------|--------------------|
|--------------|--------------------|

| | |
|----------------|-------------------------------------|
| 2018 till date | Lagos State University, Ojo |
| 2014 till date | Superior Points ICAN Tuition Centre |
| 2017-2018 | Mobolaji Oluwa & Co. |
| 2015-2016 | PricewaterhouseCoopers (PwC) |
| 2013 | K. A. Lawal & Co. |

D. Awards and Fellowship

| Dates | Awards |
|--------------|--|
| 2017 | Overall Best Student Award, Lagos State University, Ojo |
| 2017 | Best Graduating Student Prize, Faculty of Education, Lagos State University |
| 2017 | Overall Best Female Student, Faculty of Education Award, Lagos State University, Ojo |
| 2015 | Scholarship Award, (Outstanding students' scholarship), Lagos State University |

E. Membership of Professional Bodies

| | |
|---------|--|
| 1. 2023 | ABEN (Professional Member) Association of Business Educators of Nigerian |
| 2. 2021 | NAEAP (Member) - Nigerian Association of Educational Administration and Planning |
| 3. 2011 | ACA (Associate) - Institute of Chartered Accountants of Nigeria |
| 4. 2009 | Associate Accounting Technician (AAT), Institute of Chartered Accountants of Nigeria |

F. Publications

Published Chapters

- i. Idowu, K. A. and Ore, E. R., (2022), "Corporate Governance and Accountability in Local Governments in Nigeria", 1-10 in *Public Sector Governance: Perspectives on Accountability*, edited by Bolarinwa, S. A., Lagos:Lagos State University Press.

Journal Articles

- i. Sofolahan, V., Ore, E. R. & Abudu, A. M. (2025), Assessing Tax Avoidance Tendency among Entrepreneurs in Oyo South Senatorial District, Oyo State, Nigeria, *UNIZIK Journal of Educational Research and Policy Studies*, 20 (1), 24-37
- ii. Ileuma, S., David, S & Ore, E. R. (2025). Think-Pair-Share Teaching Strategy: An Effective Strategy for Improving Business Education Students' Academic Achievement in Financial Accounting in Tertiary Institutions in Nigeria, *Educational Perspectives*, 13 (1), 85-97
- iii. Ore, E. R., David, S. & Alabi, A. J. (2025). Problem-solving Teaching Method and Business Education Students' Achievement in Financial Accounting in Public Universities, Southwest, Nigeria, *African Journal of Educational Management, Teaching and Entrepreneurship Studies (AJEMATES)*, 4 (1), 1-21
- iv. Ore, E. R., Sofolahan, V. & Owodunni, P. R. (2025), "Teachers Quality and Business Education Students Entrepreneurial Skills Development in Public Universities in South West, Nigeria", *EduLine: Journal of Education and Learning Innovation*, 5 (1), 104-110
- v. Hassan, A. M., Ore, E. R. & Ayeni, O. D., (2024), "Redesigning Business Education Curriculum in public universities for Job Creation and Poverty Alleviation in Nigeria", *Educational Perspectives*, 12 (2), 115-119
- vi. Ore E. R & Hassan A. M. (2023), "Business Education Curriculum Content and Entrepreneurial Skills Development of Business Education Students in Public Universities in Lagos State, Nigeria", *EduLine: Journal of Education and Learning Innovation*, 3 (3), 437-443.
- vii. Ore E. R. (2023), Societal Perception of Business Education Graduates in Nigeria, *Albukhary Social Business Journal*, 1, 35-40
- viii. David, S., Ore E. R. & Sofolahan, V. (2023), "Entrepreneurial Skills of Business Education Graduates: A Catalyst for Sustainable Development in Nigeria", *International Journal of Office Administration and Information Management IJOAIM*, 3(1), 295-305
- ix. Ore, E. R., Hassan, M. A. & Ogungbo, O. M. (2022), "Business Education and Digital Skills: A Conceptual Review", *International Journal of Advanced Research in Multidisciplinary Studies IJARMS*, 2 (1), 41-45.
- x. Ore E. R. (2022), "Effectiveness of Business Education Programme on the Employability Skills of Business Education Students in Public Universities in Lagos State, Nigeria", *African Journal of Educational Management*, 23 (1), 57-73

- xi. Ifenaïke, S. A., Ore, E. R., Hassan, A. M. & Akporuovo, E. (2021), “Staff Training and Development and Teacher Efficiency in Secondary Schools in Lagos State, Nigeria”, *Journal of Research in Educational Management and Business Studies Business Studies JOREMBS*, 6 (2), 145-162.
- xii. Ore, E. R. & Akporuovo, E. (2020), Towards Enhancing Strategic Management Practices in Vocational and Technical Education Programme in Nigeria, *Journal of Research in Educational Management and Business Studies Business Studies*, 5 (1), 57-70 .
- xiii. Mohammed O. M., Ibikunle A. G., Ore E. R. & Akporuovo, E. (2020), “Impact of COVID-19 on Job Security and Labour Turnover of Private Secondary School Teachers in Lagos State, Nigeria”, *African Journal of Educational Management*, 21(2), 149-168 .
- xiv. Ibikunle, A. G., Orefuwa, E. R. & Mofo, A. B., (2019), “Analysis of Causes and Effects of Unemployment in Nigeria Towards a Solution for Graduate Idleness and Poverty Alleviation”, *IOSR Journal of Humanities And Social Science IOSRJHSS*, 24 (2), 36-44 , DOI: DOI: 10.9790/0837-2402023644
- xv. Ibikunle, A. G., Olawole, O. J. & Orefuwa, E. R. (2018), “Capacity Building and Utilization of Agriculture for Poverty Eradication: Diversifying Entrepreneurship Education in Nigeria.”, *IOSR Journal of Humanities And Social Science IOSR-JHSS*, 23 (12), 1-3 , DOI: DOI: 10.9790/0837-2312050106

Referred Conference Proceedings

- i. Hassan, A. M., Ayeni O. D. & Ore, E. R. (2023), “Promoting Sustainability Development: The Role of Business Studies Teachers in Public Upper Basic School in Oyo State” in *Innovative Research and Quality Education for Sustainable Development*, IBADAN: Lead City University.
- ii. Hassan M. A., Ore E. R. & Ifenaïke S. A. (2021), “Strategies for Managing Fund and Human Resources during Crises in Public Universities in Nigeria: the innovative perspective.” In *Innovation and Technology for Sustainable Educational Development*, IBADAN: His Lineage Publishing House.

G. Conferences/Workshops attended

| | |
|------|--|
| 2025 | Association of Business Educators of Nigeria (ABEN) 37 th Annual National Conference, University of Delta State, New Technologies and Curriculum Development in Business and Entrepreneurship Education |
| 2025 | Lagos State University, Faculty of Education 10 th Annual International Conference, Navigating the Global Education Landscape: Policies, Reforms and Processes, 1 st -4 th July, 2025 |
| 2024 | Workshop on Understanding and Implementing the UNESCO Guidance for Generative AI in Education and Research, Organised by National Open University of Nigeria in Partnership with UNESCO, 9 th -20 th October, 2024 |

- 2024 Nigerian Association for Educational Administration and Planning 43rd Annual Conference, Navigating Challenges in Educational Innovation and Leadership in Nigeria, 7th-11th October, 2024, Ibadan
- 2024 One Day International Multidisciplinary Conference on "Recent Advancement in Education, Research, Social Sciences, Science and Engineering" on National Youth Day at PGDAV College Auditorium, University of Delhi, Nehru Nagar, New Delhi, India jointly Organised by International Council for Education Research and Training (ICERT), 12TH January, 2024
- 2024 ERUDIO Talk Series held by ERUDIO Journal of Educational Innovation Published by the Universitas Brawijaya, Indonesia on 27th March, 2024
- 2024 UB Online Short Course "Pathways to Publication-Equipping Scholars with Essential Writing and Publishing Skills", hosted by Universitas Brawijaya in partnership with Elsevier. 22nd-25th April, 2024
- 2023 Lead City University Postgraduate College Multidisciplinary International Academic Conference, Innovation Research and Quality Education for Sustainable Development, 16th-19th October, 2023.
- 2023 35th Annual National Conference of the Association of Business Educators of Nigeria (ABEN)
- 2023 Lagos State University, Faculty of Education 8th Annual International Conference: Understanding and Tackling Rampaging Global Poverty through Education, 30th-3rd November, 2023.
- 2023 5th LASU Research and Innovation Fair: Harnessing Sustainable Research and Innovation in Nigeria University towards National and Growth Development, 12th-13th September, 2023.
- 2022 Faculty of Arts and Education, Lead City University, International Conference on Sustainable Development. Pragmatic Human Capital for Sustainable Development, June 6th-8th, 2022.
- 2022 Empowering Education: Building the Future 7th International Conference of the Faculty of Education, Lagos State University, Nigeria. 1st- 7th July, 2022.
- 2021 Man, Technology and Innovation in Socio-Economic and Educational Revolution in Africa: 16th- 20th, May, 2022.
- 2021 Fourteenth Regional Conference Organised by Higher Education Research and Policy Network HERPNET in Collaboration with Michael and Cecilia Ibru University, Agbarha-Otor, Delta State, Nigeria: Theme: Higher Education in the New Normal. 26th-29th, July, 2021
- 2020 The 9th International Conference of Global Education Network the University of Lome, Togo. Multi-Disciplinary Virtual Conference on Research, Innovation, Peace and Development in Sub-Sahara Africa, Monday, 23 Friday, 27, November, 2020: Letter of Acceptance/Invitation.

H. Referees

PROF. MOHAMMED, Mubashiru Olayiwola

Department of Educational Management, Lagos State University, Ojo

mubashiru.mohammed@lasu.edu.ng, 08033344750

PROF. AKINDOJU, Olugbenga

Department of Science and Technology Education, Lagos State University, Ojo

olugbenga.akindoju@lasu.edu.ng, 08023404719

Signature

Date

The University Compliance Certification




This is to certify that the thesis by Elizabeth Remilekun ORE with the matriculation number LCU/PG/002968 in the Department of Arts and Social Science Education, Faculty of Education, Lead City University, Ibadan, Oyo State is in full compliance with the approved university format and style.

Signature

Date

Lcu Library

ORE_Elizabeth_Remilekun_PhD LCU Library

-  Quick Submit
-  Quick Submit
-  Lead City University

Document Details

Submission ID
trnoid::1:3053530765

Submission Date
Oct 24, 2024, 4:40 PM GMT+1

Download Date
Oct 25, 2024, 10:49 AM GMT+1

File Name
E_ORE_ELIZABETH_REMILEKUN_PhD_Business_Education_3_version.docx

File Size
285.6 KB

148 Pages
39,088 Words
232,628 Characters

12% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- ▶ Bibliography
- ▶ Quoted Text
- ▶ Small Matches (less than 10 words)
- ▶ Submitted works