EFFECTS OF COOPERATIVE AND PROBLEM-BASED TEACHING METHODS ON PERFORMANCE OF BUSINESS EDUCATION STUDENTS IN CORPORATE ACCOUNTING IN UNIVERSITIES IN SOUTH-WEST ZONE, NIGERIA

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ABSTRACT

The study was carried out to investigatethe effect of cooperative and problem-based teaching methods on performance of business education students in corporate accounting in universities in South-west Zone, Nigeria.In order to achieve this, five specific objectives were raised. Five research questions were raised. Five null hypotheses were formulated for the study. Quasi experimental design was adopted for the study. The population of the study was 119 and the sample was 99. Corporate Accounting Performance Test (CAPT) was used as the instrument for data collection. The instrument was made up of two sections, section A was the pretest and section B was the post test. The data collection procedure lasted five weeks. The demographic variable of the students was analyzed using percentage. The research questions were answered using mean and standard deviation. The null hypotheses one and two were tested using regression statistic, hypotheses 3 and 4 tested using t-test and hypothesis five was tested using one-way Analysis of Variance. All the hypotheses were tested at 0.05 level of significance. Null hypotheses one, two and five were rejected, while hypotheses three and four were retained. The study found that, cooperative and problem-based teaching methodshad effects on academic performance of business education students in corporate accounting.However, there was no significant difference between the academic performance of male and female students taught corporate accounting using cooperative and problem-based teaching methods. There was significant difference in the academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods.Based on the findings, it was concluded that cooperative teaching and problem-based methodsaffected the performance of students in accounting. Thus, four recommendations were made among which are; Cooperative teaching method should be used to teach corporate accounting to university

business education students. Problem-based teaching method should be used to teach corporate accounting to university business education students.

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Teaching methods comprise of principles and techniques used for instruction. Since the introduction of business education as a course of study into Nigeria universities, various teaching methods have been adopted by lecturers. These teaching methodsused have produced some levels of successes, butpresently, due to expansion in terms of knowledge, developmentin business education, specifically those relating to company accounting, the increased use of technology and the complexity in the world of work, these various teaching methods need to be re-evaluated in line with the current realities. Discussing the future of accounting education in business education, Albrecht and Sacks (2010) argued that there are various innovative teaching practices that should be adopted to improve the educational aspect of the accounting education discipline especially in the universities.

A key requirement for lecturers in the universities is to prepare students using methods that make them to take responsibility for their learning. These methods have attracted the attention of many educators and constitute what seem to present a good alternative to the traditional teaching methods. Among these methods are cooperative and problem-based teachingmethods.

Cooperative teachingmethod is an instructional method in which students are grouped into small groups of learners to work together on a mutual task. Cooperative teaching isthe use of small groups so that students work together to maximize their own and each other's learning. Students are assigned to groups of two to five members by the instructor for the purpose of achieving academic or social projects.Interaction and effective communication between students is critical during cooperative work assignments. Group members equally share the specified task

and tutor and work with other students in the group to complete the tasks. Each student is responsible and accountable for learning the assigned task while helping others learn the task. Cooperative teaching changes students' and teachers' roles in classrooms. The process of teaching and learning is shared by groups of students and is not the sole responsibility of the teacher. The function of defining goals, facilitating and evaluating learning is shared by all. Students have more opportunities to actively participate in their learning, question and challenge each other, share and discuss their ideas and internalize their learning. Along with improving academic learning, cooperative teaching helps students to engage in thoughtful discourse and examine different perspectives, and it has been shown to increase students' self-esteem, motivation and empathy among students.

Cooperative teaching focuses on how students learn in small groups through social interdependence. Cooperative teaching is designed to maximize learning for all students in each group, which differs from the traditional use of learning groups. Cooperative teaching is not just telling students to work together on a task, but interpedently. In contrast, cooperative teaching groups revolve around the premise of high positive interdependence, members are responsible for their own and each other's learning.

Problem-based teachingon the other hand, is a method that situates learning in complex and meaningful problems that are cast in authentic settings. Students work individually or in small groups to acquire the conceptual knowledge and procedural skills needed to develop one or more plausible solution to each of the problems presented to them. Problem-based teaching is a constructivist method in which students learn the course content by dealing with open-ended problems in small groups or individually with the guidance of the teacher. It contributes to usage of the knowledge in the relevant situations and it has several advantages in motivation,meaningful

learning, retention and performance skills. Problem-based teaching method places an increasing responsibility on learners in their own learning process. It is one of the constructivist instructional method that has shown much promise in its application to disciplines and domains where learners have to take on complex problems in ambiguous situations. Yewande (2000) was of the opinion that problem-based teaching involves using information and reasoning to overcome obstaclesin the learning process.

The problem-based teachingmethod is an active teaching method which enables the students to become aware of and determine his\her problem-solving ability and learning needs, to be able to make knowledge operative and to perform group works in the face of real life problems.This approach to instruction structures courses and entire curricula on problems rather than on open content (Smith & Ragan, 2009). The main characteristic of problem-based teaching that differentiates it fromcooperative teaching method is the ill-structured problems. Students construct the knowledge base while dealing with ill-structured problems that include cases from real-world situations with no single right solution. Ill-structured problems pose multiple solutions and multiple criteria for evaluating solutions which require learners' personal decision. The problem requires scientific thinking, reasoning skills and personal decisions that are based on prior experiences.

The focus of problem-based teaching method is on students as constructors of knowledge in a way similar to the context in which they use that knowledge. The students are encouraged to think critically and creatively. Problem-based teaching students are presented with a problem and all learning occurs as a result of considering the problem. Therefore, problem-based teaching allows students to interact with their environment and their peers which eventually leads to

evolvement of knowledge. Hoffman and Ritchie (2007) stated that problem-based teaching can promote transfer of knowledge and skills gained in the school to daily life.

Academic performance is how well a student is doing in the school. Aka (2005) defined academic performance as the index of general mental abilities which are responses to test of different kinds. Walker and Lofty (2007), in support of Aka (2005) explained that academic performance is the general school performance in various school disciplines as exhibited by the individual learner. Invariably, academic performance can be seen as the general ability in intellectual functioning. A student can be above average, average or below average in his or her cognitive functioning.

Performance in corporate accounting is important because it is one of the courses required in business education accounting option for graduation. Experience has shown that the performance of business education undergraduate students in corporate accounting has not been encouraging, and as it has been noted by Torp and Sage (2004) that methodology is very vital in any teaching-learning situation,the method adopted by the teacher may promote or hinder learning. It may sharpen mental activities which are the bases of social power, or may discourage initiatives and curiosity thus making self-reliance and survival difficult.Students need to understand concepts at deeper levels and to understand at deeper levels they need to be engaged in sustained thinking to give them better understanding of concepts. The deplorable state of business education students' performance in corporate accounting may be as a result of the over reliance on lecture method by lecturers in the universities. As a result of these, there is a dire need to re-evaluate the teaching methods use in teaching corporate accounting, that was why this study determined the effect of cooperative and problem–based teaching methodson university business education students' performance in corporate accounting in South-westzone,

Nigeria.South-westzone is one of the zones in Nigeria. It is made up of six states; Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. South-west zone has a total of 19 universities divided into federal, state and private universities. Out these universities, four (University of Lagos, Ekiti State University, Ado-Ekiti, Tai Solarin University of Education and Olabisi Onabanjo University, Ago Iwoye) offer business education.

1.2 Statement of the Problem

In this global competition for job placements, students' performance has been identified to be an essential determinant of graduates' survival. It is believed that good academic gradeswould provide more career choices and job security. Without good performance in school, doubt exists that graduates especially from business education may be incapable of solving tasks and applying their knowledge in the actual workplace environment. Particularly, in this new technology era, the workplace contains more complicated and sophisticated computerized systems, which create more complex and ill-structured problems. In this situation, students need to be exposed to teaching methods that make them active learners to enable them to acquire problem solving skills. Regrettably, Nigeria educational system which is based upon competition among students for grades, social recognition and scholarship,is far from being capable of producing graduates with these required skills.

In addition, academic performance, which is measured by the examination results, is one of the major goals of any university programme,business education is established with the aim of imparting knowledge and skills to those who go through the programme. Business education whose vision is to be a programme of excellence is keen on quality assurance and maintenance of standards. However, it has been noted that while very few business education students perform well in corporate accounting, majority of them perform poorly. If this poor performance

goes unchecked, the programme may lose its reputation which may result in loss of confidence in business education graduates. In confirmation of this statement, researcher's assessment of the recent performance of business education students in corporate accounting in the universities in the South-west zone of Nigeria revealed that students' performance in the course is very poor. It was also discovered that a good number of students do not pass corporate accounting at first sitting.

The summary of the analyses of business education students' performance in corporate accounting for 2011/2012, 2012/2013 and 2013/2014 academic sessions in three of the universities (University of Lagos, Ekiti State University and Taisolarin University of Education) offering business education in South-west zone of Nigeria is given as follows: for 2011/2012 academic session, out of 89 students 33(37.1%) passed while 56(62.9%) failed. For 2012/2013 academic session, out of 92 students 37(40.2%) passed while 55(59.8%) failed and for 2013/2014 academic session, out of 107 business education Accounting students in the three universities 38 students representing 35.5% passed Corporate Accounting while 69(64.5%) failed. The detail is as given in Appendix B.

Much as the situation described here callsfor concern, it is not clear the reason for business education students' poor performance incorporate accounting. The researcher's interaction with students and lecturers showed that everybody has a complaint about the method of teaching corporate accounting. The students complained thatthe teaching method adopted by lecturers makes the corporate accounting class dull, boring and difficult. It is also believed by business education students that corporate accounting is an exceptionally difficult course and that is why lecturers also may be finding it difficult to teach the students. Lecturers on their part are of the opinion that students do not show enthusiasm and liveliness in corporate accounting classes. In

fact, Anderson(2005) has affirmed that one of the major factors responsible for poor performance among undergraduate students might be caused by the poor method of teaching adopted by lecturers.

It could therefore be inferred from the foregoing that the traditional lecture teaching method which business education lecturers mostly use in teaching accounting could largely be responsible for poor performance in corporate accounting. Consequently, there is a dire need for better methods of teaching corporate accounting that would stimulate the interest of learners. The researcher therefore is interested to finding out the extent to which cooperative and problem-based methods of instruction could be more effective than the traditional methods of teaching corporate accounting in universities in South-west zone of Nigeria.

1.3 Objectives of the Study

The main objective of the study is to determine the effects of cooperative and problem-based teaching methods on performance ofbusiness education studentsin corporate accounting in universities in South-westzone, Nigeria. The specific objectives are to:

1. determine the effect of cooperative teaching method on performance of business education students in corporate accounting in universities in South-west zone, Nigeria.
2. assess the effect of problem-based method on performance of business education students in corporate accounting in universities in South-west zone, Nigeria.
3. establish the effect of gender on academic performance of business education students taught corporate accounting using cooperative teaching method in universities in South-westzone, Nigeria.

4. determine the effect of gender on academic performance of business education students taught corporate accounting using problem-based teaching method in universities in South-westzone, Nigeria.
5. ascertain the difference in the academic performance of business education students taught corporate accounting using cooperative teaching, problem-based and lecturemethods in universities in South-westzone, Nigeria.

1.4 Research Questions

The study answered the following research questions:

1. What is the effect of cooperative teaching method on performance of business education students in corporate accounting in universities in South-westzone, Nigeria?
2. What is the effect of problem-based method on performance of business education students in corporate accounting in universities in South-west zone, Nigeria?
3. What is the effect of gender onacademic performance of business education students taught corporate accounting using cooperative teaching method in universities in South-westzone, Nigeria?
4. What is the effect of gender on the academic performance of business education students taught corporate accounting using problem-based teaching method in universities in South-westzone, Nigeria?
5. What is the difference in the academic performance of business education students taught corporate accounting using cooperative teaching, problem-based and traditional lecturemethods in universities in South-westzone, Nigeria?

1.5 Research Hypotheses

The following null hypotheses are formulated and were tested at 0.05 level of significance:

1. Cooperative teaching method has no significant effect on academic performance of business education students in corporate accounting in universities in South-West Zone, Nigeria.
2. Problem-based teaching method has no significant effect on academic performance of business education students in corporate accounting in universities in South-West Zone, Nigeria.
3. There is no significant difference in the academic performance of male and female business education students taught corporate accounting using cooperative teaching method in universities in South-West Zone, Nigeria.
4. There is no significant difference in the academic performance of male and female business education students taught corporate accounting using problem-based teaching method in universities in South-West Zone, Nigeria.
5. There is no significant difference in the academic performance of Business Education students taught corporate accounting using cooperative, problem-based and lecture methods in universities in South-West Zone, Nigeria.

1.6 Significance of the Study

The findings of this study will be of great benefit to the following people: accounting education lecturers, curriculum planners, business education undergraduates, universitiesmanagement and researchers.

The findings of this study willprovide guidance to accounting education lecturersin implementing cooperative teaching and problem-based teaching methodsand provide sourcesof

reference, as well as helps to enrichexisting pedagogical skills. It will also be useful for accounting lecturers while they are planning the process of teaching-learning as this willbring the variety to the methods and techniques used in the process of teaching-learning,

The results of this study will be of benefit to the curriculum planners because the results would serve as suggestions that will be useful for the improvement of the curriculum of corporate accounting lesson at the university level. Also, in line with the motivation to increase the quality of teaching andlearning, this study's findings willprovide another source ofevidence for the Research and Development (R&D) team in university education. This is specifically aimed at the curriculum developmentdivision, which requires more research findings in order to develop an effectivecurriculum that is grounded by a student-centered learning approach.

Business education University students will benefit immensely from the findings of this study, as the findings will bring out the potentials of cooperative teaching and problem-based teaching methods in contributing to students' better understanding and increase motivation.The findings of this study willcreate new discussions and researches concerning the methods and techniques used in accounting teaching of universities. The outcomes of this study could also influence future lecturers' development through the promotion of training that encourages the use of multiple instructional methods.

Universities' management will find the findings useful in identifying the necessity for a full scale cooperative teaching and problem-based teachingmethods implementation; similar to other successful international universities (Wee, 2004; Wang,Fong, & Alwis, 2005; Lahtinen, 2005). This study would provide information whether cooperative teaching and problem-based teaching are suitable, feasible and workable in respect to university's context and population.

The findings may also serve as a catalyst for future research on the effect of cooperative teachingand problem-based teaching methodson students' performance in corporate accounting and overall excellence of courses and instruction using the university level population.

1.7 Basic Assumptions of the Study

The following assumptions are made that:

1. The students are intelligent enough to study corporate accounting at the university level.
2. All other variables such as parental and peer influences and school environment were assumed to have the same influence on students' performance in corporate accounting in South-west zone, Nigeria.

1.8 Delimitations of the Study

This study was delimited to the effect of cooperative and problem-based teaching methods on university business education students' performance in corporate accounting in South-westzone, Nigeria. This is because business education is fast growing in this zone. The study was delimited to relevant course contents of corporate accounting in business education accounting option. Corporate accounting was targeted for this study as it is a core area of accounting which companies are highly in demand of graduates who are proficient in it. The study was delimited to both State and Federal universities in this zone because these are the universities offering business education. It was also delimited to universities offering business education programme in South-west zone of Nigeria. It was further delimited to 300 level students because corporate accounting is offered at this level in most universities that offer business education. The two methods (cooperative and problem-based teaching methods) were used because they are not commonly used by lecturers in teaching accounting. The study was

also delimited to the final accounts of companies because it is the major area of focus in company accounting.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

This chapter is a review the related literature which is presented under the following sub-headings:

2.1 Theoretical Framework

2.3 Conceptual Definitions of Teaching Methods

2.3 Teaching Methods in University Education

2.4 Concept of Performance

2.5 Business education programme

2.6 Cooperative teaching Method and Students' Performance

2.7 Problem-based Teaching Method and Students' Performance

2.8 Effect of Gender on Performance

2.9 Review of Empirical Studies

2.10 Summary of the reviewed literature

2.1 Theoretical Framework

Four theories were used in providing theoretical framework for this study. The theories are as follows in order of discussion: Cognitive developmental theory, Social interdependence theory, behavioural learning theory and constructivist learning theory.

Cognitive developmental theory is chosen for this study because is one of the constructivist theories which state that students learn by discovery. Social interdependence theory is chosen for this study because the theory specifies the condition under which cooperation is most effective, the outcomes most affected by cooperation and the most effective procedures for implementing cooperative teaching. Behavioural learning theory is a supportive learning theory to the social interdependence theory. It is significant in this study because it talked about extrinsic motivation which provide powerful dimension to the cooperative teaching.

Constructivist learning theory is chosen to provide understanding for problem-based teaching method. This is because it is a learning theory through which learning is connected to clear purpose, ideally one in the real world which is the focus of problem-based teaching. It also provides an environment where learners take the ownership of the problem and the process of acquiring knowledge.

2.1.1 Cognitive-Developmental Theory by Piaget (1928)

Piaget's theory of cognitive development is a comprehensive theory about the nature and development of human intelligence. Piaget believed that one's childhood plays a vital and active role in the person's development. Piaget's idea is primarily known as a developmental stage theory. The theory deals with the nature of knowledge itself and how humans gradually come to acquire, construct and use it (Torres & Ash, 2007). To Piaget, cognitive development is a progressive reorganization of mental processes resulting from biological maturation and environmental experience. He believed that children construct an understanding of the world around them, experience discrepancies between what they already know and what they discover in their environment, then adjust their ideas accordingly. Moreover, Piaget claimed that cognitive development is at the center of the human organism, and language is contingent on knowledge and understanding acquired through cognitive development. Piaget's earlier work received the greatest attention. Piaget's theory is divided into four stages through which intelligence develops until maturity(Piaget, 1928):

Stages of Cognitive Development

Stage	**Characterized by**
Sensori-motor (Birth-2 years)	- Differentiates self from objects - Recognizes self as agent of action and begins to act intentionally: e.g. pulls a string to set mobile in motion or shakes a rattle to make a noise. - Achieves object permanence: realizes that things continue to

	exist even when no longer present to the sense.
Pre-operational (2-7 years)	- Learns to use language and to represent objects by images and words - Thinking is still egocentric: has difficulty taking the viewpoint of others - Classifies objects by a single feature: e.g. groups together all the red blocks regardless of shape or all the square blocks regardless of colour
Concrete operational (7-11 years)	- Can think logically about objects and events - Achieves conservation of number (age 6), mass (age 7), and weight (age 9) - Classifies objects according to several features and can order them in series along a single dimension such as size.
Formal operational (11 years and above)	- Can think logically about abstract propositions and test hypotheses systematically - Becomes concerned with the hypothetical, the future, and ideological problems

Sensorimotor stage (0-2 years)

Cognitive development is Jean Piaget's theory. Through a series of stages of experiment, Piaget proposed four stages of cognitive development: the sensorimotor, preoperational, concrete operational and formal operational period. The sensorimotor stage is the first of the four stages in cognitive development which "extends from birth to the acquisition of language". In this stage, infants progressively construct knowledge and understanding of the world by coordinating experiences (such as vision and hearing) with physical interactions with objects (such as grasping, sucking, and stepping). Infants gain knowledge of the world from the physical actions they perform within it. They progress from reflexive, instinctual action at birth to the beginning of symbolic thought toward the end of the stage.

Children learn that they are separated from the environment. They have aspect of environment, even though they may be outside the reach of a child's senses. In this stage, according to Piaget, the development of object permanence is one of the most important accomplishments.Object permanence is a child’s understanding that objects continue to exist

even though he or she cannot be seen or heard. Peek-a-boo is a good test for that. By the end of the sensorimotor period, children develop a permanent sense of self and object.

Pre-operational stage (2-7 years)

Piaget's second stage, the pre-operational stage, starts when the child begins to learn to speak at age two and lasts up until the age of seven. During the Pre-operational Stage of cognitive development, Piaget noted that children do not yet understand concrete logic and cannot mentally manipulate information. Children's increase in playing and pretending takes place in this stage. However, the child still has trouble seeing things from different points of view. The children's play is mainly categorized by symbolic play and manipulating symbols. Such play is demonstrated by the idea of checkers being snacks, pieces of paper being plates, and a box being a table. Their observations of symbols exemplify the idea of play with the absence of the actual objects involved. By observing sequences of play, Piaget was able to demonstrate that, towards the end of the second year, a qualitatively new kind of psychological functioning occurs, known as the Pre-operational Stage.

The pre-operational stage is sparse and logically inadequate in regard to mental operations. The child is able to form stable concepts as well as magical beliefs. The child, however, is still not able to perform operations, which are tasks that the child can do mentally, rather than physically. Thinking in this stage is still egocentric, meaning the child has difficulty seeing the viewpoint of others. The Pre-operational Stage is split into two sub-stages: the symbolic function sub-stage, and the intuitive thought sub-stage. The symbolic function sub-stage is when children are able to understand, represent, remember, and picture objects in their mind without having the object in front of them. The intuitive thought sub-stage is when children

tend to propose the questions of "why?" and "how come?" This stage is when children want the knowledge of knowing everything.

Concrete operational stage (7-11 years)

The concrete operational stage is the third stage of Piaget's theory of cognitive development. This stage, which follows the preoperational stage, occurs between the ages of 7 and 11 (preadolescence) years, and is characterized by the appropriate use of logic. During this stage, a child's thought processes become more mature and "adult like". They start solving problems in a more logical fashion. Abstract, hypothetical thinking is not yet developed in the child, and children can only solve problems that apply to concrete events or objects. At this stage, the children undergo a transition where the child learns rules such as conservation. Piaget determined that children are able to incorporate inductive reasoning. Inductive reasoning involves drawing inferences from observations in order to make a generalization. In contrast, children struggle with deductive reasoning, which involves using a generalized principle in order to try to predict the outcome of an event. Children in this stage commonly experience difficulties with figuring out logic in their heads. For example, a child will understand that "A is more than B" and "B is more than C". However, when asked "is A more than C?", the child might not be able to logically figure the question out in their heads.

Two other important processes in the concrete operational stage are logic and the elimination of egocentrism.

Egocentrism is the inability to consider or understand a perspective other than one's own. It is the phase where the thought and morality of the child is completely self-focused. During this stage, the child acquires the ability to view things from another individual's perspective, even if they think that perspective is incorrect. For instance, show a child a comic in which Jane puts a

doll under a box, leaves the room, and then Melissa moves the doll to a drawer, and Jane comes back. A child in the concrete operations stage will say that Jane will still think it's under the box even though the child knows it is in the drawer.

Children in this stage can, however, only solve problems that apply to actual (concrete) objects or events, and not abstract concepts or hypothetical tasks. Understanding and knowing how to use full common sense has not yet been completely adapted.

Piaget determined that children in the concrete operational stage were able to incorporate inductive logic. On the other hand, children at this age have difficulty using deductive logic, which involves using a general principle to predict the outcome of a specific event. This includes mental reversibility. An example of this is being able to reverse the order of relationships between mental categories. For example, a child might be able to recognize that his or her dog is a Labrador, that a Labrador is a dog and that a dog is an animal, and draw conclusions from the information available, as well as apply all these processes to hypothetical situations.

The abstract quality of the adolescent's thought at the formal operational level is evident in the adolescent's verbal problem solving ability. The logical quality of the adolescent's thought is when children are more likely to solve problems in a trial-and-error fashion. Adolescents begin to think more as a scientist thinks, devising plans to solve problems and systematically test opinions. They use hypothetical-deductive reasoning, which means that they develop hypotheses or best guesses, and systematically deduce, or conclude, which is the best path to follow in solving the problem. During this stage the adolescent is able to understand love, logical proofs and values. During this stage the young person begins to entertain possibilities for the future and is fascinated with what they can be.

Adolescents also are changing cognitively by the way that they think about social matters. Adolescent egocentrism governs the way that adolescents think about social matters, and is the heightened self-consciousness in them as they are, which is reflected in their sense of personal uniqueness and invincibility. Adolescent egocentrism can be dissected into two types of social thinking, imaginary audience that involves attention-getting behavior, and personal fable, which involves an adolescent's sense of personal uniqueness and invincibility. These two types of social thinking begin to affect a child's egocentrism in the concrete stage. However, it carries over to the formal operational stage when they are then faced with abstract thought and fully logical thinking.

Formal operational stage (11years and above)

The final stage is known as the formal operational stage (adolescence and into adulthood, roughly ages 11 to approximately 15-20): Intelligence is demonstrated through the logical use of symbols related to abstract concepts. This form of thought includes "assumptions that have no necessary relation to reality." At this point, the person is capable of hypothetical and deductive reasoning. During this time, people develop the ability to think about abstract concepts.

Piaget stated that "hypothetico-deductive reasoning" becomes important during the formal operational stage. This type of thinking involves hypothetical "what-if" situations that are not always rooted in reality. It is often required in science and mathematics.

1. Abstract thought emerges during the formal operational stage. Children tend to think very concretely and specifically in earlier stages, and begin to consider possible outcomes and consequences of actions.
2. Metacognition, the capacity for "thinking about thinking" that allows adolescents and adults to reason about their thought processes and monitor them.[45]

3. Problem-solving is demonstrated when children use trial-and-error to solve problems. The ability to systematically solve a problem in a logical and methodical way emerges.

While children in primary school years mostly used inductive reasoning, drawing general conclusions from personal experiences and specific facts, adolescents become capable of deductive reasoning, in which they draw specific conclusions from abstract concepts using logic. This capability results from their capacity to think hypothetically. However, research has shown that not all persons in all cultures reach formal operations, and most people do not use formal operations in all aspects of their lives".

Piaget has been extremely influential in developing teaching and learning. The implication of Piaget's theory to this study is centered on discovery learning – the idea that children learn best through doing and actively exploring - was seen as central to the cognitive development theory.'The report's recurring themes are individual learning, flexibility in the curriculum, the centrality of play in children's learning, the use of the environment, learning by discovery and the importance of the evaluation of children's progress - teachers should 'not assume that only what is measurable is valuable. According to Piaget (1928), assimilation and accommodation require an active learner, not a passive one, because problem-solving skills cannot be taught, they must be discovered.

Within the classroom, learning should be student centred and accomplished through active discovery learning. The role of the teacher is to facilitate learning, rather than direct tuition. Therefore, teachers should encourage the following within the classroom:

1. Focus on the process of learning, rather than the end product of it.
2. Using active methods that require rediscovering or reconstructing "truths".

3. Using collaborative, as well as individual activities (so children can learn from each other).
4. Devising situations that present useful problems, and create disequilibrium in the child.
5. Evaluate the level of the child's development, so suitable tasks can be set.

The cognitive-developmental theory is a supporting theoretical influence on thedevelopment of cooperative teaching. The cognitive-developmental perspectiveprovides the intrinsic motivation in cooperative teaching environments in relation toresource and role interdependence, as illustrated in Figure 1. Piaget (1954) describedcooperation as striving to attain common goals while developing one's own feelingsand perspective with a consciousness of other's feelings and perspectives (Johnson &Johnson, 1999). Cooperative teaching in the Piagetian tradition is aimed at increasingthe student's intellectual development by requiring students to reach consensus with 1others who hold opposing viewpoints of the assigned task. Each student serves as aresource for other students and plays a vital role in the other's gain of knowledge whileworking toward consensus.

Additionally, the cognitive perspective explains how students learn throughconstruction of knowledge from intrinsic motivation and is based on the student'spersonal experiences and interaction with the world (Piaget, 1954). Piaget (1954)identified the stages of cognitive development and three kinds of knowledge: physicalknowledge, logico-mathematical knowledge, and social knowledge. The cognitivelearning theory places the learner at the center of the classroom with the instructorfacilitating an active learning environment. Piaget studied how humans come to knowwhat they know over time, a major break from the work of other theorists who studiedthe behavior, rather than what generates the behavior as cognitive psychologistsproposed. Cognitive learning theory focuses on the process of building

knowledge,rather than the context or product.Vygotsky (1962), who provided an alternate perspective on cognitive learningtheory from the Gestalt School of Psychology, stated that learning and thinking involvethe participation of the learner.The learner constructs knowledge through interactionwith others, the learning environment and experience. Learning is student-centered andfacilitated by the instructor rather than dictated. Vygotsky (1962) established thatknowledge is socially constructed from cooperative efforts to learn, understand, andsolve problems.

In practice, the cognitive learning theory provides the theoretical framework forchanging the way teachers teach because of the notion that students construct their ownlearning (Wittrock, 1978). Research in cognitive psychology supports the theory that ifinformation is to be retained in memory and related to information already in memory,the learner must engage in some sort of cognitive restructuring, or elaboration, of thematerial. This theory of cognitive learning was used to underpinned the study because all other theories have link to this theory, therefore, the study was hinged on the theory of cognitive learning.

2.1.2 Social interdependence theory by Johnson, Johnson, and Smith (2000)

Theoretically, cooperative teaching is unique in comparison to other teaching methods. Cooperative teaching is framed in the theory of social independence,grounded in the work of Koffka, Lewin, and Deutsch (Johnson, Johnson, & Smith, 2000). Additional theoretical support for cooperative teaching is found in the cognitivelearning theory, developed by Piaget (1954), which emphasized that learning is basedon intrinsic motivation and is constructed by the student. In the cooperative classroom,students jointly construct knowledge, reinforcing resource and role interdependency.

The behavioral perspective provides the structure for group work, in that it must bereward and task oriented, providing extrinsic motivation for learning (Johnson,Johnson, &Smith, 1998). All the facets of learning are addressed collectively in thetheoretical foundation for cooperative teaching, as illustrated in Figure 1. Each theory is discussed in relationship to cooperative teaching.

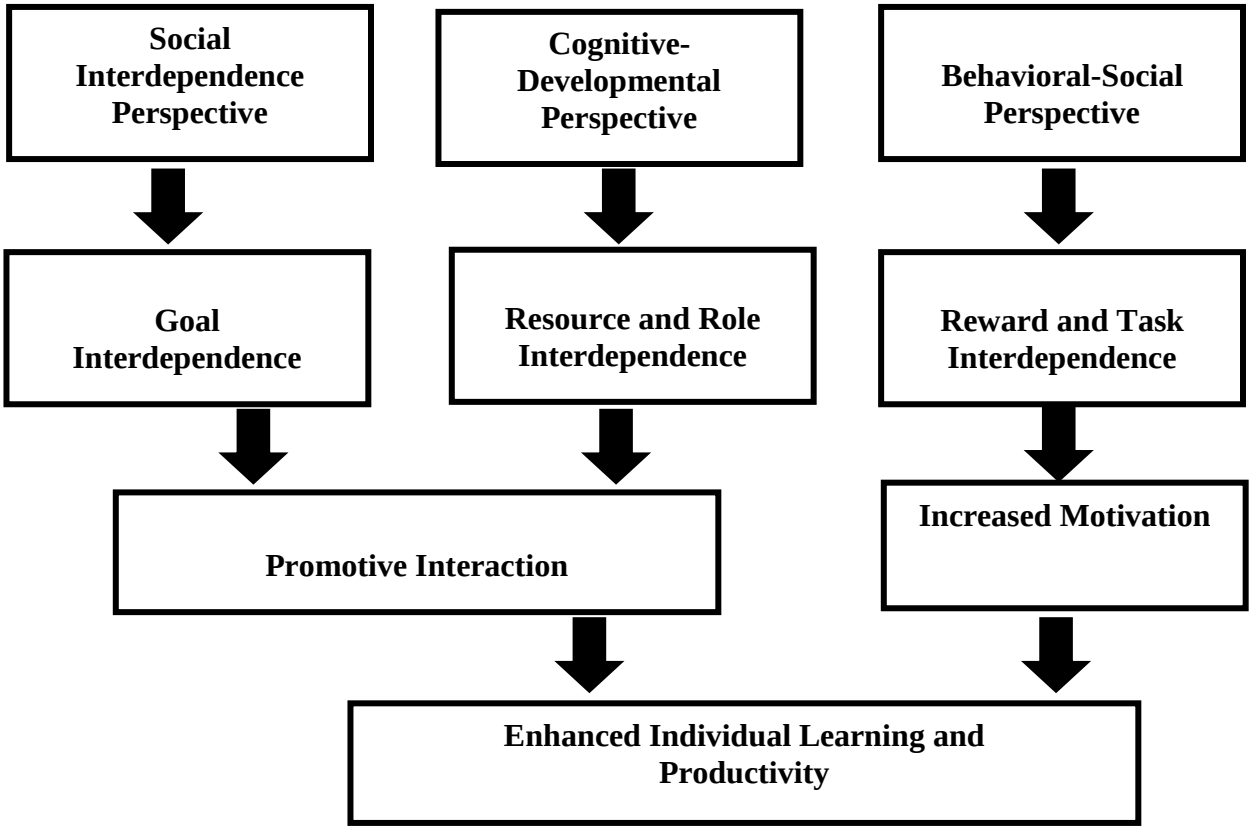


Figure 1 Theoretical Framework for Cooperative teaching

Source: Johnson,Johnson, & Smith, (1998)

The key identifying factor between cooperative teaching and other instructionalmodels is that it is based on the theory of social interdependence from the work ofGestalt theorists on group dynamics (Johnson & Johnson, 1998). The theory of socialinterdependence provides educators with a conceptual framework for understandinghow to structure effective learning, how it can be adapted to a wide variety ofsituations, and how it can be applied to a wide range of

issues such as achievement,ethnic integration, and retention. The social interdependence theory, extended from thework of Lewin (1935) and Deutsch (1949, 1962) increases the learning circle fromindividuals competing alone to groups learning together, multiplying the potentiality forlearning.

In the practice of cooperative teaching, positive interdependence createspromotive interactionwhich occurs as individuals encourage and facilitate eachother's efforts to reach the group's goals, and in turn, maximizing each member'slearning (Johnson & Johnson, 1998) as illustrated in Figure 1. Group members canpromote each other's success by: (a) giving and receiving help and assistancebothtask-related and personal; (b) exchanging resources and informationorallyexplaining, elaborating and summarizing information, and teaching one's knowledge toothers; (c) giving and receiving feedback on task work and teamwork behaviors monitoring each other's effort; (d) challenging each other's reasoning throughintellectual controversy, promoting curiosity and motivation to learn; (e) advocatingincreased efforts to achieveencouraging others to achieve increases one's owncommitment to do so; (f) mutually influencing each other's reasoning and behavior; (g)engaging in the interpersonal and small group skills needed for effective teamwork; and (h) processing how effectively group members are working together and how thegroup's effectiveness can be continuously improved.

The effects of the operationalization of social interdependence are many. Socialinterdependence is a generic human phenomenon that influences many differentoutcomes simultaneously (Johnson & Johnson, 1998). Researchers have focused onsuch diverse dependent variables as individual achievement and retention, higher-levelreasoning, intrinsic motivation, attitudes toward diversity, self-esteem, and manyothers. The evolvement of the social interdependence theory, through research andtheory refinement, has led to practical theory- and

research-based implementationprocesses that enhance the learning efforts of students working cooperatively in teams.

The second supporting theory, the behavioral learning theory, provides structureand order to the classroom through extrinsic motivation and is grounded in thestimulus-response work of Skinner (1971). Skinner (1971) definedlearning as a relatively permanent change in behavior in response to stimuli.Behaviorists focus on measuring learning through observable effects, such as writtenevaluations or performance checklists (Slavin, 1990). In science,concepts, events, and phenomena are assigned an operational definition defining theconcept in terms of how it is measured. Behaviorists, in particular, have adopted thismethod of assigning a definition relative to permanent changes in behavior.Behaviorists suggested that the environment the stimulus/response approach controlslearning. The instructor controls learning by controlling the stimuli. The learner isdependent on the instructor to determine the correct associations between the stimulusand response. In the cooperative teaching classroom, the behavioral perspectiveassumes that students will work hard on a task to secure a reward, providing incentiveand motivation for students to participate in a group effort, as illustrated in Figure 1.

In summary, cooperative teaching is grounded in the theory of socialinterdependence and supported by the cognitive and behavioral learning theories. Whilecognitive and behavioral learning theories disagree on how learning takes place, cooperative teaching uses them both to enhance the efficiency and effectiveness oflearning. The cognitive-developmental perspective focuses on what happens within theindividual (Johnson & Johnson, 1999). Behavioral learning theory assumes thatcooperative efforts are generated by extrinsic motivation to achieve rewards. Providingintrinsic and extrinsic motivation adds powerful dimension to the cooperative teaching

model that is yet to be fully explored. The theory most fully developed and the mostclearly related to cooperative teaching practice is the social interdependence theory.Social interdependence assumes that cooperative efforts are based on intrinsicmotivation to work together to achieve a common goal through positive interaction.Social interdependence specifies the conditions under which cooperation is mosteffective, the outcomes most affected by cooperation, and the most effective procedures for implementing cooperative teaching.

2.1.3 Constructivism learning theory by Vygotsky (1978)

It is essential to examine the theoretical perspective behind problem-based teaching, namelyconstructivism. In simple terms, constructivism is a learning theory or philosophypurporting that "learners construct knowledge for themselves – each learner individually(and/or socially) constructs meaning – as he or she learns (Hein, 1991).

It is argued that before one could look at the instructionaldesign of a constructivist learning environment, one must understand the primarypropositions of constructivism. They delineated three with the first being understandingis in our interactions with the environment. Having emphasized the word in, Savery and Duffy proposed that it is impossible to separate what is learned from how it islearned; therefore, the context of learning, the content to be learned, and the learnerhimself including his learning activities and, most importantly, his learning goals must allbe taken into account. Their second proposition was cognitive conflict or puzzlement isthe stimulus for learning and determines the organization and nature of what is learned. They explained that the learner's goal is central to what is to be learned; it dictateswhat the learner focuses on including the prior knowledge he brings to the learningsituation. They argued this premise is similar to Dewey's (1938) idea of theproblematic" leading to and organizing the learning and Piaget's (1977) belief that onemust make accommodations when he

cannot place knowledge into his existing schema. The last proposition was knowledge evolves through social negotiation and through theevaluation of the viability of individual understandings. Social negotiation comesinto focus as learners use others to test their individual understanding and hone thatunderstanding. Also, included in this proposition was the idea that fact is based more on "widespread agreement" than "ultimate truth" citing the medieval belief of the world being flat.

Therefore, according to constructivist learning theory, learning activities mustencourage the personal and social construction of meaning. Jonassen (1991) delineatedconstructivist principles for the design of learning activities ranging from the teacher ascoach to negotiated learning objectives, from realistic problem solving to authenticlearning environments. Savery and Duffy (1995) formalized eight instructional principlesthat could be derived from constructivist theory:

1. Anchor all learning activities to a larger task or problem.
2. Support the learner in developing ownership for the overall problem or task.
3. Design an authentic task.
4. Design the task and the learning environment to reflect the complexity of the environment they should be able to function in at the end of the learning.
5. Give the learner ownership of the process used to develop a solution.
6. Design the learning environment to support and challenge the learner's thinking.
7. Encourage testing ideas against alternative views and alternative contexts.
8. Provide opportunity for and support reflection on both the content learned and the learning process.

According to Savery and Duffy, then, the ideal constructivist learning environment wouldbe one where learning was connected to a clear purpose, ideally one in the real world. Itwould be an

environment where learning goals matched the goals of the individual learners whether that is through student-generated problems or problems that studentsreadily adopt as their own. It would be a place where, in lieu of authentic physicallearning environments such as a lab, authentic cognitive demands were placed on thelearner such as problem solving and using the scientific method. It would be a placewhere learners took ownership of both the problem and the process.

Teachers in this ideal environment,value as well as challenge the learners' thinking by incorporating such concepts as Vygotsky's (1978) zone of proximal development. It would be a placewhere emphasis was placed on the learning community so that knowledge was sociallynegotiated and where learners worked toward the goal of self-regulation. They suggestedthat the model that best embraces these instructional design principles is problem-based teaching. Whendescribing the ideal constructivist learning environment, Goodnough (2006) includedthose characteristics inherent in problem-based teaching as well:Educators who hold a constructivist perspective structure learning experiencesthat help students construct their understanding of phenomena based on priorknowledge, learning styles, and developing perceptions. Students need to haveopportunities to explore and reflect upon their ideas and how they fit with newideas, and to question and share their thinking in a social context. problem-based teaching is an extension of constructivist thinking.The relationship between this theory and variables are summarized in Figure 2:

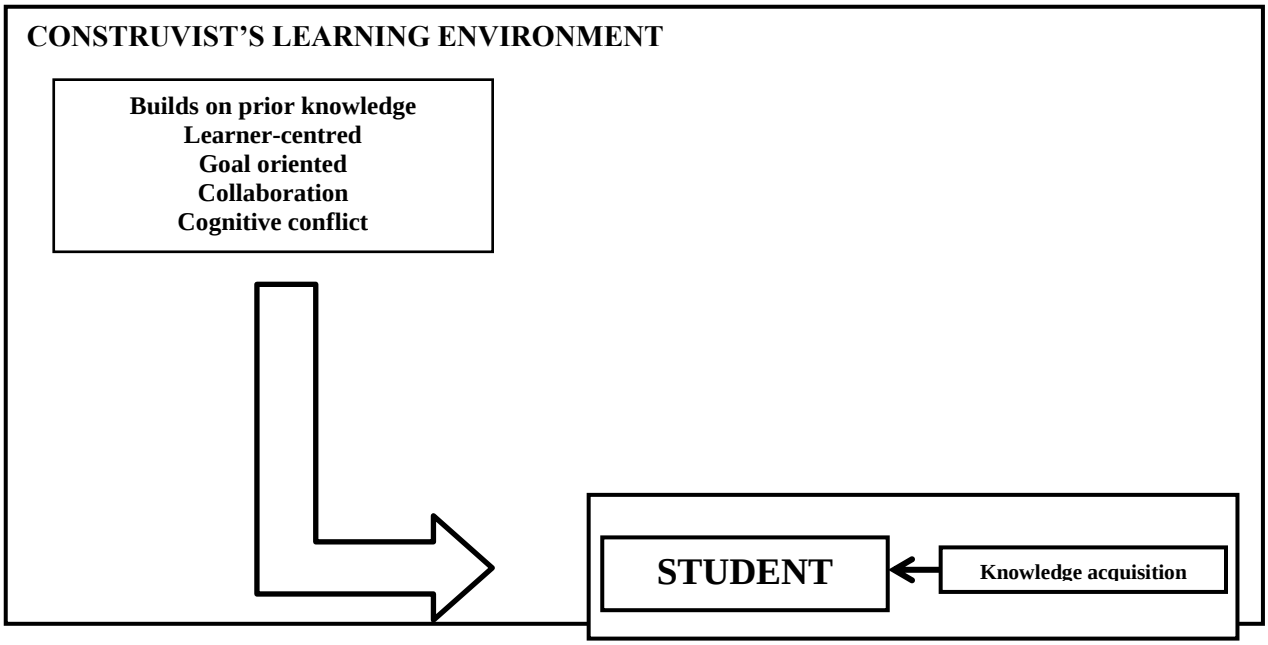


Figure 2: Theoretical Framework on Problem-based teaching. Source: Vygotsky's (1978)

In the Problem-based teaching approach, students solve an actual-world problem (or simulation) in a physical work space. They learn concepts and principles through the process of problem solving, based on specific learning goals (Savery & Duffy, 2001). Students integrate the new concepts and principles learned, into existing knowledge structures, by making an interpretation based on their previous knowledge and experiences (Schmidt, 1994; Savery & Duffy, 2001).

In this context, the authenticity of an actual-world problem promotes the students' ability to apply and relate these concepts and principles (Savery and Duffy, 2001). Interaction with the environment helps them to translate the concepts and principles learned, into new work practices. Subsequently, these concepts and principles are converted into procedural knowledge when they reach a certain level of higher performance (Savery & Duffy, 2001; Hmelo-Silver, 2004).

Students construct higher order thinking skills, especially critical thinking ability, through problem-based teaching activities (Wee, 2004). The authentic and ill-structured problem that is posted creates a cognitive conflict, which promotes students' thinking ability (Wee, 2004; Semerci, 2007). This typically occurs during a group brainstorming session, as solving a problem requires students to critically consider one possible best solution for the problem (O'Grady & Alwis, 2008). Students interact with each other, argue, reason, and debate, and this contributes to the development of reasoning or critical thinking ability (Semerci, 2007). In this context, their interaction with a facilitator (or peers) serves as stimuli during the problem-solving process (Winterton,Plucker & Rutkowski, 2011). According to Winterton,Plucker & Rutkowski (2011), probing questions function to engage students in a systematic cognitive process that enriches students' ability to reason.

In summary, careful analysis indicates that any specific learning activity within problem-based teaching is supported by theory. The development of knowledge acquisition, critical thinking ability, and intrinsic motivation in a problem-based teaching environment is therefore theoretically grounded. In this sense, the Constructivist Learning Theory appears to be the main philosophy of the specific problem-based teaching process.

2.2 Conceptual Definitions of Teaching Methods

The following concepts are discussed in the study, the concepts of cooperative teaching, problem-based, lecture method, business education, academic performance and corporate Accounting.

2.2.1 Cooperative teaching method

Cooperative teaching is a pedagogical practice that has attractedmuch attention over the last three decades because of a large body ofresearch that indicates students gain both

academically and sociallywhen they have opportunities to interact with others to accomplish shared goals.

According to Açıkgöz (2011), cooperative teaching is aprocess in which students learn by working in small groups and helping each other's learning for a commonaim. Ascooperative teaching involves group working, it is similar to the group working method. But every groupworking is not cooperative teaching method. A group working becomes cooperative teaching if every member of thegroup knows that he or she can't be successful unless the other members are successful. Cooperative teaching is an instructional method in which small groups ofstudents work together to accomplish shared goals (Johnson, Johnson, & Smith, 1998).Students perceive they can reach their learning goals if and only if the other groupmembers also reach their goals. Students are assigned to groups of two to five membersby the instructor for the purpose of achieving academic and social tasks. Cooperative teaching is distinguished from other small group learning methods by five elementsrequired for effectiveness: positive interdependence, individual accountability,promotive interaction, group processing, and team or social skills.

In cooperative teaching, the role of the student is to complete the assigned grouprole and to work collaboratively with other students to accomplish a shared goalthrough interaction and problem solving (Johnson, Johnson, & Smith, 1998). Studentsfocus their attention on the assigned task to increase his/herown learning and thelearning of group members. Interaction and effective communication between studentsis critical during cooperative work assignments. Group members equally share theassigned task, tutor other students in the group to learn and complete the assigned task,and work as group members to learn and complete the assigned task. Each student isresponsible and accountable for learning the assigned task while helping others

learnthe task. Learning course content and team skills while working on assigned tasks is anexpected outcome of cooperative teaching.

Johnson, Johnson, and Smith (2000) stated that in cooperative teaching classrooms,the instructor assigns students to small groups, gives them a question todiscuss, and facilitates (and moderates) as student exchange ideas, explain andelaborate their views, question and respond toeach other, and jointly derive ananswer. The questions tend to be open-ended and require higher-level cognitivereasoning to answer; the answers are open to interpretation. Knowledge isassumed to be dynamic and socially constructed. The instructor monitors thegroups to facilitate discussion and obtain a window into students' minds bylistening to their explanations (Açıkgöz, 2011).

Johnson, Johnson, and Smith (1998) developed three ways to integrate cooperative teaching in the classroom: formal cooperative teaching, informal cooperative teaching, and cooperative base groups. Formal cooperative teaching isstudents working together, for one period to several weeks, to achieve shared learninggoals aimed at joint completion of specific tasks and assignments. Any subject orcourse assignment may be structured for formal cooperative teaching. Groups formedon this basis provide the foundation for all other cooperative-teaching procedures. Informal cooperative-teaching groups, instructors guide learning in a number of ways:

1. Instructors make a number of pre-instructional decisions. An instructor has todecide on the academic and social-skill objectives, the size of groups, themethod of assigning student to groups, the roles students will be assigned,the materials needed to conduct the lesson, and the way the room will bearranged.

2. The instructor explains to students the task and the concept of positiveinterdependence. The instructor defines the assignment, teaches the requiredconcepts and methods, explains positive interdependence and individualaccountability, gives the criteria for success, and specifies the expectedsocial skills.
3. Instructors monitor students'learning and intervene to assist students withtasks or with interpersonal and group skills. An instructor systematicallyobserves and collects data on each group as it works. When needed, theinstructor intervenes to assist students in completing the task accurately andin working together effectively.
4. Instructors assess and evaluate students' learning and help students processhow well their group functioned. Students' learning is carefully assessed andthe performance of each is evaluated. Members of the learning groups thenprocess how effectively they worked together.

Informal cooperative teaching groups are used primarily to enhance directinstruction (presentation, demonstrations, films, videos) (Johnson, Johnson, & Smith,1998). They are typically temporary and ad-hoc, formed for a brief period of time(such as intermittent two-to four-minute discussions during a class session). Instructorsmay use informal cooperative-teaching groups during a class by having students turn toa classmate near them to discuss briefly a question posed by the instructor or tosummarize what their instructor has just presented. Doing so focuses student attentionon the material and ensures that students process it cognitively.

Cooperative base groups are longer-term groups (lasting for at least a semester)with stable membership whose primary responsibility is to provide each student thesupport and encouragement he or she needs to make academic progress and to completethe course(s) successfully (Johnson, Johnson, and Smith, 1998).The three types of cooperative teaching

complement and support each other.They might all be used in a single class session (Johnson, Johnson, & Smith, 1998).Instructors may vary the type and frequency of the use of the three types of cooperative teaching. A variety of specific methods have been developed to apply the three typesof cooperative groups (Johnson, Johnson, & Smith, 1998). For example, when usinginformal cooperative teaching the instructor may use any of the following methods tosupplement lectures at 10 to 15 minute intervals to increase learning: (a) focuseddiscussion pairs, (b) question-and-answer pairs, (c) advanced preparation papers, (d)turn-to-your-neighbor summaries, (e) cooperative note-taking pairs, and (f) read-andexplainpairs.

In summary, cooperative teaching is successful only when each member of thegroup and the instructor understand and perform their critical roles. As one of the mostwell defined group-learning methods, cooperative teaching promotes five elements thatdifferentiate it from other group-learning methods. Cooperative teaching can be usedwith any subject, can be used alone or with other instructional methods, and can beused with small or very large classes. A variety of cooperative teachingmethods havebeen developed for use in the classroom for a range of student age groups. Cooperative teaching is very effective in adult education settings, providing mature students anopportunity to share their experiences and be more involved in their education.

Research on cooperative teaching is extensive and comprehensive. The volumeof studies, the variety of studies, and the range of education levels used in studiesprovide broad-based empirical support for cooperative teaching. The widespread use of cooperative teaching is largely due to the fact that it is clearly based on theory,validated by research, and operationalized into clear procedures for educators (Johnson,Johnson, & Stanne, 2000). The generalizability, breadth, and applicability of theresearch on cooperative, competitive, and individualistic efforts provide considerablevalidation of the use of cooperative teaching. The research on cooperative

efforts hasfocused on a wide variety of diverse outcomes including achievement, higher-levelreasoning, retention, transfer of learning, time on task, transfer of learning, achievementmotivation, intrinsic motivation, social and cognitive development, moral reasoning,social support, valuing differences, psychological health, self-esteem, socialcompetencies, the quality of learning environments, and many others. Cooperative teaching Studies in Higher Education

Mostof the studies on cooperative teaching have taken place in theelementary and secondary schools (Aebersold, & Field, 2009). A limited number ofstudies, however, have investigated the effectiveness of cooperative teaching at thehigher education level, mostly in four-year universities. Over 168 studies conductedbetween 1924 and 1997 focused on the comparison of cooperative, competitive, andindividualistic learning on the achievement of students 18 years of age or older inhigher education (Machemer& Crawford, 2011).

The effects of cooperative, competitive, and individualistic efforts have beenstudied in over 375 research studies between 1898 and 1989 (Smith & Ragan, 2009). Analysis of these 375 studies indicated that cooperative teaching is effective inproducing higher achievement and productivity under certain conditions of: (a) clearlyperceived positive interdependence which supports personal responsibility to achievethe goals of the group, (b) multiple face-to-face interactions, (c) frequent and regularuse of interpersonal and small group skills, (d) individual accountability, and (e) groupprocessing to improve the group's future effectiveness. Between 1940 and 1989, 7correlation studies and 106 comparison studies were conducted on cooperative teaching.The 106 studies compared the relative impact of cooperative, individualistic, andcompetitive teaching structures (Alexander & Judy, 2010). A meta-analysis of thesestudies suggested that cooperative teaching structures promoted greater social supportthan did

competitive or individualistic. Further, application to the real world indicatedthat whenever pressure is placed on individuals for higher achievement andproductivity, considerable social support should be provided to buffer the inherentstress, confirming the integration of instructional methods such as cooperative teaching.

In summarizing results of the research of cooperative teaching, Natasi and Clements (2010) noted that the research on cooperative teaching conducted at alleducational levels indicated that benefits are universal, regardless of the age of thestudent. Cognitive-academic and social-emotional benefits were evident at alleducational levels and in all types of cultural ethnic environments. The research studiesindicated that participation in cooperative teaching enhanced academic achievement andcognitive growth, motivation and positive attitudes toward learning, social competence and interpersonal relations. Cooperative teaching has been used effectively across avariety of content areas, including mathematics, reading, social studies, and science (Alexander & Judy, 2010).

The studies consistently showed that cooperative goal structures are more effective thanindividualistic or competitive structures of the traditional classroom.Studies conducted at California State University by Dansereau (2006), Treisman(2008), and Freirson (2009) indicated that the overwhelming majority of studentspreferred cooperative teaching. Outcome measures such as higher-level thinking skills,interest in the subject matter, general class morale, and frequency/quality of interactionswith classmates received particularly favorable ratings. Cooperative teaching is one of the most researched and empirically welldocumentedforms of group-based learning in terms of its positive impact on a varietyof outcomes. Most of the research on cooperative teaching has been conducted tovalidate specific cooperative teaching procedures (Natasi & Clements, 2010).

2.2.2 Problem-based teaching method

Problem-based teaching is one constructivist instructional method that has shown muchpromise in its application to disciplines and domains where learners have to tackle complexproblems in real life situations. This approach to instruction structures courses and entirecurricula on problems rather than on subject content (Lohman, 2011). Problem-based teaching is a method that situates learning in complex and meaningfulproblems that are framed in authentic contexts (Hmelo, 2008). Students work in small groupsto acquire the conceptual knowledge and procedural skills needed to develop one or moreplausible solutions to each of the problems presented to them.

Although problem-based teaching was first applied to K-12 classrooms in the 1920's and1930's, the approach has gained particular attention in recent years due to the success in itsapplication to medical programs at the university level (Lohman, (2011).The specific instructional techniques and procedures used in the design andimplementation of a problem-based teaching course or curriculum varies from one context tothe next. However, the typical learning process followed in a problem-based teaching environment according to Lohman (2011)is as follows:

1. Students begin the problem without any prior experience in dealing withlike problems. Each group of students (usually consisting of between five andtwelve students) will meet with a facilitator to discuss the problem.
2. The facilitator presents a limited amount of information about the problem, andthe group is charged with the task of identifying the different aspects of theproblem by asking the facilitator questions to elicit information relevant to theproblem.

3. Students work with the facilitator to generate and refine hypotheses related to theproblem's potential solution. The facilitator's role is to model hypothesis-drivenreasoning skills.
4. Students determine "learning issues" that the group decides are relevant and thatthey need to learn more about to find an acceptable solution to the problem.
5. The groups are then asked to assign tasks to each member of the group forresearching each of the different "learning issues" they have identified.
6. Group members engage in self-directed learning by gathering information relatedto the assigned learning issues from a variety of different sources.
7. After each of the group members has conducted the necessary research related tothe "learning issue" they were assigned, the group members report their findingsto each other. They reconvene and re-examine the problem, applying newlyacquired knowledge and skills to generating a formal solution to the problem.
8. Once the formal solution has been presented to the class and the facilitator,students reflect on what they have learned from the problem and on the processused to resolve the problem presented.

In problem-based teaching, students use "triggers" fromthe problem case or scenario to define their own learningobjectives. Subsequently they do independent self-directedstudy before returning to the group to discuss and refine their acquired knowledge. Thus, problem-based teaching is not about problem solvingper se, but rather it uses appropriate problems to increaseknowledge and understanding. The process is clearly defined,and the several variations that exist all follow a similar series ofsteps (Lohman, 2011).

Group learning facilitates not only the acquisition ofknowledge but also several other desirable attributes, such ascommunication skills, teamwork, problem solving, independentresponsibility for learning, sharing information, and respect forothers. PBL can therefore be thought of as a small groupteaching method that combines the acquisition of knowledgewith the development of generic skills and attitudes(Maxwell, Bellisimo & Mergendoller, 2005). Appropriate presentation of problem-based teaching enables students to understand the relevance of underlyingscientific knowledge and principles in corporate accounting.However, when PBL is introduced into a curriculum, severalother issues for curriculum design and implementation need tobe tackled. PBL is generally introduced in the context of adefined core curriculum. It has implications for staffing and learning resourcesand demands a different approach to timetabling, workload,and assessment. Paper based PBL scenariosform the basis of the core curriculum and ensure that allstudents are exposed to the same problems (Maxwell, Bellisimo & Mergendoller, 2005).

(a) Origin and goals of Problem-based teaching

According to Chegwidden (2006), Problem-based teaching was first established by Howard Barrows inthe 1960's as part of the education of physicians in medical school. Problem-based teaching is a method thatHmelo-Silver (2004) defined as a set of problems provided to small groups of students to try tosolve. Students discuss each problem; retrieve their prior knowledge related to theproblem and search for new information that helps in solving the problem. Problem-based teachingmethod aimed to help student in developing rich cognitive models when solving the problem (Norman & Schmidt, 2005). Similarly, Savin-Baden (2006) argued that teachers aimedwhen using Problem-based teachingto develop their students' self-

independent learning. Problem-based teaching is an approach targeting five different goals not addressedby the conventional method (Salvatori, 2007):

1. Construction of useful knowledge: problems produce intrinsic interest which sequentially initiates the cognitive processes of retrieving prior knowledge, determining a problem space, seeking out new information, and reconstructing information into knowledge (Norman & Schmidt, 2005). Constructing extensive and flexible knowledge goes beyond having students learn the facts of a domain. To encourage students to develop flexible knowledge and effective problem solving skills, learning must be embedded in contexts that require the use of these skills (Hmelo-Silver, 2004). Discussing problems in a Problem-based teaching group (before beginning to research learning issues) activates relevant prior knowledge and facilitates the processing of new information. Students have better ability to construct new knowledge when they can relate it to what they already know (Hmelo-Silver, 2004).
2. Development of reasoning methods: through constant contact with real life problems, students will develop abilities to perceive a problem and appreciate its features, formulate and analyze critically possible hypotheses and finally make decisions about appropriate actions to solve the problem (Norman & Schmidt, 2005).
3. Development of effective self-directed learning methods: self-directed learning makes the student aware of the importance of personal learning needs. Additionally, it allows him to find and to utilize accurately all kinds of information resources (Norman & Schmidt, 2005). According to Torp and Sage (2004) metacognitive methods are important for developing self-directed, lifelong learning skills. These are the skills that enable autonomous learning. First, learners must have a metacognitive awareness of what they

do and do not understand. Second, they must be able to set learning goals, identifying what they need to learn more about for the task they are engaged in. Third, they must be able to plan their learning and select appropriate learning methods. In other words, they must decide on a course of action to reach these goals. Finally, as they implement their plan, learners must be able to monitor and evaluate whether or not their goals have been attained.

4. Increased motivation for learning: since students will perceive the problems studied as relevant and given that sessions are structured as open-ended discussions, curiosity is fostered (Norman & Schmidt, 2005).
5. Becoming effective collaborators: TheProblem-based teaching process pushes students to work together and to help each other to get an understanding of what they are learning and its relevance to the problem. It is this collaboration that permits the students to build up the abilities necessary to be responsible for their own learning. Collaboration is an indispensable ability that students should have, since they will be regularly working as members of teams *(*Hmelo-Silver & Barrows, 2006*).* Research literature has shown that the success of problem-based teaching depends on group work (Gallagher & Stepien 2009).

From the objectives highlighted above, it is clear that the principal goal of the Problem-based teaching approach is the development of higher order thinking. Problem-based teaching main objective is tostimulate students to learn at the higher levels, where students analyze, synthesize andevaluate instead of simply know, comprehend and apply (Salvatori, 2007).

(b) Characteristics of Problem-based teaching

According to Torp and Sage (2004) problem-based teaching is a method that is student-centered, in thismethodology students research, explain, and cooperate in order to find meaningfulsolutions to real life problems. The Problem-based teaching cycle is made of several steps:- A real life problem is presented to students.

1. Students discuss the problem and formulate hypothesis.
2. Students first retrieve prior knowledge and experience relative to the problem next they identify knowledge deficiencies and start making their research.
3. Following, students apply their knowledge to check the validity of their hypotheses in light of what they have learned.
4. At the end of each problem, students make their own reflection on the knowledge acquired (Akinoglu & Tandogan, 2004; Neild, 2006; Wang, Thompson, & Shuler, 2008).Hmelo-Silver (2004) stated that the most important factor of problem-based teaching is the problem itself.

Several features are considered essential to develop a good problem-based teaching problem:

1. It needs to be complex, open-ended, and ill-structured. (Uyeda, Madden, Brihjam, Luft & Washburne, 2004; Torp & Sage, 2004).An ill structured problem is problem that is incompletely defined and not easily resolved with any degree of certainty. Furthermore, it has multiple solutions with none clearly superior. (Torp & Sage, 2004).
2. It must be realistic and resonate with the students' experiences and it should support intrinsic motivation. (Torp & Sage, 2004).

3. It must lead students to generate hypotheses and defend them to others in their group. Students publicly articulate their current state of understanding, enhancing knowledge construction and setting the stage for future learning (Cerezo, 2004).
4. It must afford feedback that allows students to evaluate the effectiveness of their knowledge, reasoning, and learning methods. And it should challenge students todevelop higher order thinking skills (Hmelo-Silver, 2004).

(c) Role of the teacher and student in Problem-based teaching

Problem-based teaching requires changes in the teacher's lesson planning, instruction delivery, classroomsetting, and information assessment (Torp & Sage, 2004). In problem-based teaching, teaching is facilitatingand mentoring, it is based on the fact that student are self-independent learners who canbuild their own knowledge with the guidance of their tutor. The teacher role in problem-based teaching iscritical; a good facilitator will guide his/her students through the different phases of the problem-based teaching process.The teacher insures the involvement of all the students in the learning process wherethey exchange information with their peers by externalizing their own thoughts andcommenting on each other's ideas (Torp & Sage, 2004).In problem-based teaching, the teacher encourages student to use logical thinking by analyzing the givenproblem, thus higher order thinking skills are developed. He/she also encourages studentto retrieve prior knowledge and discuss it with their group members by asking probingquestions. Problem-based teaching tutor models problem solving skills needed to assess one's reasoning(Akinoglu & Tandogan, 2006)

Unlike conventional methods where the teacher is the leading figure, Chin and Chia(2004) indicated that in problem-based teaching, student assumes a different role than that in the traditionalteacher-centered process in which information is presented to them by the teacher.

Inproblem-based teaching, student must play a more active role, that of a highly motivated learner, arrivingwith substantial intellectual capacity and background information. Problem-based teaching presents thestudents with the chance of assessing their own understanding, and discovering their own learning needs. Through problem-based teaching students become more skilled at gathering, organizing, and storinginformation in a useable form for future use, as well as, confronting and resolvingcomplex, realistic problems. Active participation within the small group requires goodinterpersonal skills. These include: listening, giving and receiving criticism,compromising, negotiating, educating peers, and motivating others. The teacher is amentor who guides his student during their group work and helps them to find theknowledge needed to find the problem solution (Doig & Werner, 2006).

The use of real life problem in the problem-based teachingmethod induces students' interest andthinking which leads to a greater student involvement in learning (Torp & Sage, 2004).Students gain the ability to analyze the problem and synthesize an appropriateexplanation to it, thus become independent learners (Torp & Sage, 2004). Problem-based teaching is a very useful pedagogical approach, with many valuable effects for thestudents. First of all, it promotes problem solving skills like cooperating, communicating,and researching skills. Problem-based teaching' students have greater ability than conventional students toretain the knowledge they gain since they are actively engaged in the learning process(Doig & Werner, 2006). These Problem-based teaching characteristics contribute to an increase in student motivationtowards learning (Torp & Sage, 2002; Doig & Werner, 2006).

(c) Barriers to Problem-based teaching Implementation

Similar to any educational approach problem-based teaching has its own limitations.To a greater or lesser extent, overcoming these barriers is possible if appropriatemethods are adopted

when problem-based teaching is introduced into the curriculum.Some disadvantages of problem-based teaching are:

1. It could be difficult for teachers to change their teaching styles (Hmelo-Silver, 2004): Tutors enjoy passing on their own knowledge and understanding so they may find problem-based teaching tutoring difficult and frustrating. The lack of training programs, curriculum materials, and rigid scheduling in the high school environment will increase demands on any teacher trying to implement PBL in the classroom (Akinoglu & Tandogan, 2006).
2. Problem-based teaching is more expensive than traditional methods: the problem-based teaching curricula necessitate large number of well-equipped rooms for small group meetings. In addition, it requires other important resources to support small group investigations, including instructional materials (both textbooks and multimedia), space library, equipment, and support personnel. For instance, having several copies of resource material available in the library for large numbers of small groups implies substantial costs, particularly for schools in developing.
3. There is a lack of prepared materials for problem-based teaching classroom instruction (Torp & Sage, 2004). Present curriculum guides and textbooks do not contain the variety of sample problems needed to support this methodology on a broad scale. Few teachers have the time or the motivation to prepare all new materials for classes (De Grave, Schmidt & Boshuizen, 2007).
4. Students who are used to the traditional lecturing are likely to be uncomfortable when using the problem-based teaching approach for the first time (Chin & Chia, 2004). It will

be up to the teacher to convince students that they are researchers looking for information andsolutions to problems that may not have one right answer.

2.2.3 Lecture Method

Lecture method is the oldest teaching method. As used in education, the lecture method refers to the teaching procedure involved in clarification or explanation to the students on some major ideas (Obunadike, 2011). This method lays emphasis on the presentation of contents by the teacher. The teacher is more active and students are passive but he also uses questions and answers to keep them attentive in the class. It is used to motivate, clarify, expand and review the information. Domitrovich Cortis and Greenberg (2007) observed that the lecture method is associated with the telling or didactic teaching method. This means that the teacher centred teaching happens in a highly teacher dominated environment (Egbo, 2008). Teachers using the lecture method have very limited concern about students' ideas and reasoning when they prepare their lessons (Olulube, 2006). Thus we can say that when teacher takes the help of a lengthy-short explanation in order to clarify his ideas or some fact that explanation is termed as lecture method.

Usually teachers use lecture method because they are accustomed to them (most probably they were lectured at tertiary institutions). Lecture method allows easy control over students. Teacher's actions are more on helping students to develop understanding of subject matter. In other words, the teacher gives more attention to student's cognitive knowledge, and teachers also use assessment as a tool to assign grades. Leichnitz (2006) noted that even where the teacher-student interactions focus on nurturing the development of understanding of concepts and students reasoning about them, the setting tends to be strongly teacher-directed in its nature and in the physical setting and use of resources. Many secondary school teachers tend to demonstrate this kind of approach to teaching. Researchers, especially in Africa and Asia, see lecture method

as a valuable tool for effectively teaching and high student academic performance (Obunadike, 2011). The application of contemporary knowledge and ideas, effective use of appropriate questioning, time management and the arrangement of the classroom, proper curricular development, and the statement of the instructional objective and mastering of subject matter are seen as effective instructional methods. Pedagogy experts like Instructional competence is needed to do well in the use of the lecture method. They see having quality teachers in schools, districts, states, professional groups, and institution enable, as high-quality teaching and learning is critical to the welfare of the nation's education system and the young people it serves. It leaves us asking if teachers can be trained to provide an enriched environment and teach a curriculum in such a way that every child is challenged to perform far above grade level (Miranda & Landmann, 2011).

2.3 Teaching methods in University Education

Lecturers strive to become more effective teachers so thatstudents can learn better, and many explore methods to improve their teaching practice.Depending on the nature of subject, number of students, and the facilities available, there are different methods lecturers are using in the classroom. The following are some of the methods and certain tips and techniques for improving these methods.

Scaffolding method: This is a situation where by a teacher transforms learners by assigning tasks to the leaners which they cannot handle alone without his intervention. Raymond (2000) defined instructional scaffolding teaching method as the process of problem solving confined on learners heavily and weightily by solution by the teacher. This however means that leaners with all their energy put in, in providing solution to a problem or to a task cannot without the assessor. Olson and Prath (2000) observed that instructional scaffolding is a teaching method that

emphasizes on the introduction of new skills by engaging students, collaboratively in tasks that will be too hard for them to complete on their own. This method involves individual students' brainstorming on how to provide solution to problem with the help of the assessor (Vygotsky, 1978).

Demonstration method: This is usually a traditional method used by the teacher to illustrate a procedure to be followed (Leroy and Herbert, 2002).This invariably means the way and manner problems ought to be followed to the logical conclusion. According to Ndanwu (2005), teachers agreed that typewriting, accounting and shorthand to be properly taught, the teachers demonstration by all means is very important. This however shows the students the various manipulations of the machines figures, symbols and even signs which include what is to be done and why it is done.

Discussion method: It is a useful way of instruction and of stimulating thought and interest in a topic or subject (Mills, 2000). Discussion can often be more effective than the field trip method making students think and in contributing theirown ideas. It must not only be carefully controlled by the teacher but also requires individual preparation by the students (Harrison, 2000).This is an instructional method that embodies the democratic properties and processes of free guided and purposeful expression of views and ideas on a given issue, problem or situation (Mkpa, 2004). He further revealed that it has the merit of encouraging learners to depend on their ability to think than on the teacher.

Questioning method: This method of teaching was invented by Socrates andMills (2000) described it as a methodwhere the teacher asks questions and the students answer. The questions are so arranged as to make the pupil conscious of his own ignorance and help guide the pupil towards a deeper truth. It is believed that such truth learned are held firmly because

they've not been presented to the child readymade but drawn out of his own mind with the help of the teacher.

Role Play method: According to Olson and Prath (2000) both the performers and the observers have specific responsibilities in this method. The performers present their solutions, either spontaneously or after a planning session, while the non-performers develop criteria for evaluation. This is a method of teaching where students are made to act out certain roles in the class like the roles of secretaries, receptionists and the part played by executives in taking decisions concerning management problems and situations (Harrison, 2000). In any role playing, only a small group of students are actively involved while the other members of the class watch what goes on. The participants are usually absorbed while the others remain passive except as they think about and discuss the role playing.

Group Work: This is anopportunity for students to meet together briefly in relatively small groups of four to seven to share with each other opinions, viewpoints and reactions. The group technique can be applied to basic Accounting classes (Harrison, 2000). This method provides an opportunity for all to participate in a way that is not possible in a total class situation, they also help students learn the skills of listening as well as talking and students learn to think in action while interacting with each other.

Programmed Instruction: This method is defined as a step by step approach that is highly adaptable to adult learning. It is reading source frequently used to assist individual students in learning (Harrison, 2000). Material is presented in small segments, requiring the student to supply an answer or a word to complete the sense and providing immediate feedback in the form of the correct answer. The programmed must have clear objectives stated in behavioural terms and great care must be taken in breaking it down in to a planned sequence and in formulating the

question so that they are stimulating but not so hard as to be discouraging. Programmed materials appear in various formats – answers printed upside down, on the next page or in a column designed to be uncovered by sliding an opaque mask(Leroy& Herbert, 2002).

Practice and Drill: In this method, students repeatedly perform the desired act until they reach an acceptable degree of competency (Leroy& Herbert, 2002). Their achievement at each level provides them with sense of satisfaction which in turn spurs them on to practice further the desired learning activities. Harrison, (2000) agreed that this method is necessary when students are expected to acquire a skill or some proficiency in performing some specific act. This method is therefore very effective in the teaching and learning of typewriting, Accounting and Shorthand.

Problem – basedmethod: When normal human beings encounter problems, they almost always try to find solutions to them. Most times attempts to solve these problems involve thinking that leads to discovery of new facts. According to Olson and Prath (2000)students at all levels and in all courses, must be taught how to think regardless of their programmes. To them, problem – solving method provides excellent opportunities for students to learn how to think.

Field Trip Method: field trip according to Leroy and Herbert (2002) any organized excursion which is taken by school pupils as an integral part of their academic work and primarily for educational purpose. It is also defined as an educational activity in which a school group leaves the classroom and goes out into the community to the actual source of information. Field trip enable students to see concrete illustrations of classroom theory; to reinforce understandings developed from reading and discussion; to see, smell and touch or hear the objects or processes previously described, to enter into conversation with the people who are actively engaged in

business; to ask questions that might not arise in the classroom. The focus of this study is on cooperative teaching and problem-based teaching method.

2.4 Concept of Performance

Academic performance is how well the student is doing in school. Aka (2005) defined academic performance as the index of general mental abilities which are responses to test of different kinds. So, in societies like Nigeria where standardized test of different kinds exist, the academic performance of the students is represented by the individual's response to standardized scholastic aptitude tests; and the level of response given to such scholastic aptitude tests can help in determining success. This scholastic aptitude test should embrace the students' general school performance in various school subjects. For instance, in Nigeria junior secondary schools at JSSCE examination level, the students are tested on the subjects offered in JSS school certificate examination.

Walker and Lofty (2003) in support of the above view explains that academic performance is the general school performance in the various school disciplines as exhibited by the individual learner. Invariably, academic performance can be seen as the general ability in intellectual functioning. A student can be above average, average or below average in his or her cognitive functioning. Academic performance according to the Cambridge University Reporter (2003) is frequently defined in terms of examination performance. In line with this, Raymond (2000) stated that when students are judged at the cognitive level, some can be seen as being of high or low intellectual ability or as intelligent or back ward or as above average, average or below average. Aka (2005) buttressed this, by pointing out that the students referred to as high intelligent or above average in intellectual ability are usually those students who perform in the 'A' and 'B' grades while those in D and E grades are seen as below average students.Staffolani

and Bratti, (2002) observed that measures of prior educational performance are the most important determinants of student performance. This implies that the higher the previous performance, the better the students will perform academically.In this study academic performance is characterized by performance in tests.

2.5 Business Education Programmme

A generally acceptable definition has been difficult to arrive at because research and theoretical formulations havecontinued to grapple with the problem, providing as many definitions as there are experts. business education as education for business according to Ubulom (2003) is an aspect of educational programme which prepares students for careers in business. It is education needed to teach people business, education needed to handle personal affairs and education needed about business in order to be good citizens of society. Osuala (2004) defined business educationas a programme of instruction which consists of two major parts: whereas one part consist of office and vocational education for office career through refresher and upgrading education; the other part consists of a programme to provide students with information and competencies which are needed by all in managing personal business affairs or using the services of the business world. It could be deduced from these definitions that business education prepares individual for future career.

Business education iseducation for and about business andeducation for business teachers. It is a set of instructions, which prepares students for jobs in business world (Aina, 2002) and emphasizes office skills in areas such as accounting, shorthand, typewriting, secretarial duties and business methods. In most cases, business education is wrongly interchangeably used to mean the same thingwith such terms like business administration, business management and business studies. It is entirely different fromthese concepts. It is

simply an educational programme in one part. On the other hand, business education is an aspectof educational process, which provides as individual with the pedagogical and business competences necessary for theteaching and practicing of business concepts, knowledge; attitudes and skills for personal use, for entry into businessworld as employer or employee and for participation as a business teacher.

Business education is a sub-set of vocational education which has a major role to play in the total development of thecountry. Vocational education is the training of persons for specific occupations. It includes the learning of any kind of profitable and useful work.This implies that vocational education aimed at training the youths and unemployed persons for jobs and helps workersupgrade or extend their jobs skills. A critical examination of the definitions of business education and vocational education provides that the meanings of the concepts are in line with two of the Nigerian educational aimsand objectives as contained in the Federal Government of Nigeria (2004) as follows:

1. The inculcation of the right types of values and attitudes for the survival of the individual and the Nigerian society
2. The acquisition of appropriate skills, abilities and competencies, both mental and physical, as equipment for individual to live in and contribute to the development of his society

It is worthy of note that one of the objectives of vocational and technical (business education not excluded) accordingto Federal Government of Nigeria (2004) is to give training and impact the necessary skills leading to the production of craftsmen, techniciansand other skilled personnel who will be enterprising and self-reliant.The objectives of business education are numerous because theydifferfrom one level to another.

The general aim and objectives of business education curriculumasstated by Osuala (2004) are asfollows:

1. To make available to all students opportunities to explore andlearnthe world of business and the possible interest and potential careersithas tooffer.
2. To develop in all students the ability to choose discriminately andtousewiselythegoodsandservicesthatbusinessistooffer.
3. To assist in developing, on the part of the students, interest in ofthevarious occupations to be found in the world ofbusiness.
4. To develop in all students the practical way ofunderstanding, appreciatingtheactualfunctioningofoureconomicsystem.
5. To enable students to acquire basic skills in business occupationsasbeginners who expect to follow business as acareer.
6. To prepare students to enter and succeed in business occupationsasbeginners who expect to follow business as acareer.
7. To prepare students to perform business activities common tomanyprofessional, industrial, agricultural services and home-makingcareers;and
8. To prepare students for more effective study in the fields ofbusinessandeducationbeyondthesecondaryschooleducationlevel.

Objectives of business education at the TertiaryLevel

Njoku(2006)gavetheobjectivesof business educationat tertiary level asfollows;

1. To empower you with desirable skills, knowledge and valuetoperformspecificfunctionssoastobecomeself-reliant.
2. To help you appreciate the world around you

andcontributemaximallytothesocialandeconomicdevelopmentofthenation.

3. To empower you in such a way that you will developyourintellectual capability that would help you to makeinformeddecisions in all sphere oflife.
4. To help you become a judicious spender and developpropervaluesfortheachievementofhealthylivingandgrowthofthenation.
5. To understand the political framework of a nation so that youcancontribute to national economic and development of yourcountry.

2.5.1 Corporate Accounting

Corporate Accounting is one of the courses in business education which is a special branch of accounting that deals with the accounting for companies, preparation of their final accounts and cash flow statements, analysis and interpretation of companies' financial results and accounting for specific events like amalgamation, absorption, preparation of consolidated balance sheets (wikieducator, n.d). A public company usually refers to a company that is permitted to offer its registered securities (stock, bonds, etc.) for sale to the general public, typically through a stock exchange, but also may include companies whose stock is traded over the counter (OTC) via market makers who use non-exchange quotation services such as the OTCBB and the Pink Sheets. The term public company may also refer to a government-owned corporation. This meaning of a "public company" comes from the tradition of public ownership of assets and interests by and for the people as a whole (public ownership). In the case of public owned companies, their corporate accounting includes the issues of shares and debentures.

For showing the revenue and financial performance of company, Accountant maintains company accounts.All company accounts are made in corporate accounting. It can be seen as recording of issue of equity and preference shares, debentures, bonus and right shares. It is also

duty to maintain all routine accounts like sole trade and partnership firm. In normal transactions, we can include purchase, sale, receipt and payment transactions and it is recorded in journal first and after posted it to ledger of company accounts. Company accounts are also helpful for making company's final account.

Fyler (2013) defined corporate accountingas the measurement, recording and interpretation of financial information and data relating to a limited company (a public limited company or a joint stock company). It specifically refers to accounting for larger organizations rather than smaller-scale sole traders or partnerships where the requirements and demands for filing accounts tend to be less rigorous. This is because corporations have a duty to provide financial information to the general public and regulatory bodies, whereas smaller businesses do not have this duty.

A key component of corporate accounting, as opposed to keeping personal accounts, is the use of the double entry bookkeeping system, whereby every transaction that takes place will leave a record in two or more accounts. Corporate company accounting has laws governing them, whereas there is no such requirement for smaller organizations such as sole traders and partnerships. Definitions of what is deemed to be a small, medium or large company for accounting purposes depend on the turnover, balance sheet total and the number of employees the company has.

Accounting standards for preparing financial statements are only set in common law. Although corporate accounting practices vary from country to country, the International Financial Reporting Standards (IFRS) have now been adopted across the European Union as well as in countries such as Australia, South Africa and Russia. In the United States, meanwhile, accountants are bound by the Generally Accepted Accounting Principles (GAAP).

Deliberate failure to adhere to the spirit of corporate accounting regulations is often referred to as ‘creative accounting. There have been numerous instances of scandals in recent years where major corporations have deliberately misrepresented the state of their finances.

In a nutshell, corporate accounting is the financial information that a company is required to produce at the end of every year, including details of its profits or losses.The curriculum of corporate accounting in business education includes the following: company accounts formation issue and redemption of shares and debentures,forfeited shares re-issued, Redemption of redeemable preference shares/debentures. Final accounts, mergers and acquisition; amalgamation, absorption, etc., including statutory requirements of company accounts in respect of each area. Advanced company accounts in respect of each area. Conversion of partnership to limited companies, amalgamation of partnerships, departmental and branch accounts (home and foreign branches); introduction to interpretation of accounts and financial statement analysis, cash flow statements, computer application to accounting.

2.6 Cooperative teaching methods and students’ performance

Comprehensive meta-analyses have demonstrated that cooperative teaching structures arerelated to higher academic achievement than competitive and individualistic structures (Dansereau, 1997; Johnson, Johnson & Stanne, 2000, 2007; Roseth, 2008; Slavin, 2009; Springer, 2009). However, the vast majority of studies about cooperative teaching are with children in primary and secondary schools. In recent years, the scholarly interestin cooperative teaching has increased in higher education research (Hammond,Bithell, & Jones, 2010; Hillyard Gillespie& Littig, 2010; Cavanagh, 2011). But findings have been ambiguous and contradictory.In validation of social interdependence theory, a number of studies report cooperative teaching to elicit more conscientious effort and stronger commitment to preparation.

Nevertheless,the same studies also reflect a number of problems related to cooperative teaching such as freeriding,resentment towards being dependent on peers, conflicts arising over varying levels of ambition,and distrust towards peers (Finlay & Faulkner, 2005; Hassanien, 2007; Kelly & Fetherston, 2008; Onwuegbuzie & DaRos-Voseles, 2009; Waite & Davis, 2009). Machemer and Crawford (2010) found that cooperative teaching activities, unless they were perceived to relate to examinations,were valued less than lectures or other forms of active learning. Hillyard Gillespie and Littig (2010) foundthat students' attitudes towards working in groups were related to their perception of the value ofpeer interaction, their previous experiences with working in groups, and, most importantly, theindividual teacher's clarity in explaining the purpose of group work. Hammond Bithell, and Jones (2010)reported that students valued the social aspects of working with peers, but that they were less likelyto agree that cooperation helped them achieve better in assessed tasks.

Cooperative teaching has also been implemented in lectures, but results are contradictory. WhileVreven and McFadden (2007) found that students did not benefit from cooperative teaching activitiesin lectures, students in a study by Cavanagh (2011) greatly valued opportunities for engagingin lectures by means of cooperative teaching activities. There are two studies that suggest that theway students in higher education perceive of 'good' teaching may conflict with cooperative teaching.

Kelly and Fetherston (2008) interpreted resistance towards cooperative teaching as reflectinga transmission model of teaching and learning in which the teacher is considered the sole expert. Phipps (2009) reported how students associated the lecture with proper teaching at the universitylevel and perceived their own role to be passive note takers. Indeed, these findings withinhigher education are quite different from the findings at the primary and secondary levels

ofeducation.Lindquist (2009) conducted a case study of the effects of cooperative teaching techniques on auditing students' attitudes and achievement. His results suggested that student learning improved through the use of such techniques. The study investigated the effects of cooperative teaching techniques on students in an introductory accounting course and found the method effective.

Also, consideration was given to the notion, supported in the literature that cooperative teaching results in greater mastery of a subject than individual learning does (Slavin, 2007; Lindquist, 2009). Most accounting professors are unaware of the benefits of cooperative teaching (Cottell & Millis, 2009). The new approach assigned students to groups that would search for answers to questions posed by the instructor. Primary studies performed in countries other than the United States report the positive effects of cooperative teaching instruction and student academic achievement in science. In a study performed in Taiwan,Lindquist (2009) reported no effect on student achievement in earth science for cooperative teaching in comparison to control groups for overall achievement but reported a statistically significant difference in student performance on application-level test items for students in cooperative groups. Biggs and Tang (2011), in a study performed in Turkey, reported a statistically significant difference in students' understanding of chemical equilibrium in cooperative groups compared to control groups (multivariate analysis of covariance results. Biggs (2012), in another study performed in Turkey, reported a statistically significant difference in student performance in chemistry for cooperative groups compared to control groups.

Using the GI method of cooperative teaching in Israel, Shachar and Fischer (2012) reported a statistically significant main effect of cooperative teaching compared to the control groups on student achievement in chemistry. While there has been meta-analytic work that

focuses specifically on the effects of cooperative teaching in science, this work is not without weaknesses, and none of this work meets Campbell Collaboration standards. Springer, Stanne, and Donovan (2009), Bowen (2010), and Scott, Tolson, Schroeder, Lee, Huang, Hu, and Bentz, (2011) all published meta-analyses exhibiting positive effects of cooperative teaching instruction on academic achievement in education. The Springer (2009) study reported a positive mean effect size which shows a positive effect for cooperative teaching on student achievement in education. Unfortunately, they did not report specific literature search methods, including the search terms or databases they used, a potential methodological issue. Bowen (2010) reported a positive mean effect size as well. However, Bowen only searched specific journals and did not appear to do a more complete database search using keywords. The Scott (2012) study reviewed the effectiveness of a variety of interventions, including cooperative teaching. They reported a mean effect size of .59 based on 3 studies on cooperative teaching, suggesting that cooperative teaching has a positive effect on student achievement in education. However, the sample size of studies is very small, calling any conclusions into question. In addition, they did not use "cooperative teaching" or any synonyms in the database which could be why they only used three studies in the analysis.

2.7 Problem-based teaching and students' performance

One of the attractive points of problem-based teaching is its interdisciplinary nature (Putnam, 2001). The solutions developed by students in problem-based teaching have multiple outcomes just as they would with problems encountered in the real world. Students learn to overlap skill sets in competency areas often integrating written, verbal, scientific reasoning, social, and math skills in developing solutions. This learning structure places emphasis on

metacognitive skills and allows students to think beyond lower-ordered levels of thinking such as knowledge and comprehension (Putnam, 2002).

Graduallyproblem-based teaching became widespread to be accepted as an instructional approach in many other medical schools in North America and Europe because of its effectiveness (Blight, 2004; Norman & Schmidt, 2005; Salvatori, 2007; Savery, 2008). The main question, which is if the problem-based teaching was as much adequate as in terms of conventional test of knowledge like in traditional lectures, was examined by many researchers and the results showed that problem-based teachingprovided comparable scores with traditional approaches in medical examinations (Vernon & Blake, 2009), and problem-based graduates performed as well and sometimes better in clinical examinations and faculty evaluations (Albanase & Mitchell, 2009). There are many other studies which investigated the effectiveness of implementation of problem-based teaching in engineering education (Dahlgren, 2011; Fink, 2012) and in law education (Driessen & van der Vleuten, 2012). Now there are universities in which problem-based teaching is implemented in many courses (Eck & Mathews, 2012). In addition, problem-based teaching has been implemented in elementary and secondary school because of its potential to enhance higher order thinking skills and communication skills (Archilles & Hoover, 2013) and to make students more active and highly motivated (Hmelo-Silver, 2004)

There are some studies conducted to identify the effect of problem-based teaching on learning and to compare its effectiveness with traditional instruction. Vernon and Blake (2009) conducted a meta-analysis study for 22 studies to compare problem-based teaching with traditional methods in medical education and they pointed out that the superiority of the problem-based teaching approach over the traditional methods with respect to students' clinical

performance, attitudes and opinions about their program while both methods are not different on knowledge. Arambula-Greenfield (2009) stated that, collage students preferred problem-based teaching instruction to the traditional lecture-discussion-presentation format for both learning academic content and for practicing independent learning and critical thinking. A similar study was carried out by Sage (2010) to describe the characteristics of problem-based teaching as a curriculum development and instructional method in the K-8 level and to determine the effects of problem-based teaching on students' thinking skills. Sage (2010) found that overall, the opinions of teachers, in all grade levels, about problem-based teaching were all positive.

In addition, the result of the study conducted by Cerezo (2004) showed an increase in students' motivation, self-regulated learning and self-efficacy of problem-based teaching. Indeed, problem-based teaching engages students in learning and students take their responsibilities, it increases students' motivation. According to Savoie & Hughes (2005), students become highly motivated and eager to share their thoughts about problem, both inside and outside of the classroom. They also reports that they observed their students changed from individuals who struggled to remember even the simplest information in their regular classes to discussers of a broad range of information, not just from the case description but from their personal experiences as well.

Additionally, problem-based teaching gives answers to students about their dilemmas on 'Why do they need to learn?' or 'Where will they use this information in real world?', so they can find out the real reasons to learn. Problem-based teaching makes learning relevant to the real world by dealing with real-life problems. According to Uyeda,Madden, Brihjam, Luft, and Washburne (2004) the main benefit of problem-based teaching is developing an awareness of the connection between science and society by presenting the importance of using concepts from

specific science disciplines to explain collected data to solve the problem. These ill-structured scenarios encourage students to use and improve their critical thinking and creativity. Moreover, problem-based teaching increases self-regulated and metacognition skills and induce students to learn how to learn (Torp & Sage, 2004). Independent learning skills are developed through problem-based teaching process (Doig & Werner, 2006) and when the learning constructed by the learner it is more meaningful and long-lasting (Rivarola & Garcia, 2007). The result of the study conducted by De Grave,Schmidt & Boshuizen (2007) revealed that problem-based teaching discussions encourages elaboration based on prior knowledge, thereby causing integration of new information into existing knowledge as well as accessibility and memorization of such knowledge.

2.8 Effect of Gender on academic Performance

There had been a lot of debate on effect of gender on academic performance. Many authors have carried out studies on the issue and have come with different results. Some of these studies showed that, on average, girls do better in school than boys. Girls get higher grades and complete high school at a higher rate compared to boys (Jacobs, 2012). In line with this, Adeneye & Nneji (2011) found that, in standardized achievement tests females are better at spelling and perform better on tests of literacy, writing, and general knowledge. Akinsola (2007), Nenty (2010), and Apata (2011) pointed out that there is no significant gender difference in students' academic achievement and retention in various subjects.

A comprehensive review of the research in the area of gender differences by Halpern (2010) showed no difference performance between male and female students in math and verbal abilities. In fact, the research has shown only two gender differences in specific sub-areas of spatial and verbal abilities, three-dimensional mental rotation (favoring men), and speech production (favoring women). Investigating academic performance at pre-collegiate level,

Kolawale and Ala (2014) found that female students obtained higher CGPA compared to males. Examining sex-related difference in classroom grades, Kimball (2009) observed that in contrast to standardized measures of mathematics achievement tests like SAT-M, female students outperformed males in math classes. Halpen (2010) also arrived at a similar conclusion for history classes vs. history tests. The authors explain this pattern by stating that females tend to work more conscientiously and have a stronger work ethic than males. Even though this research puts into questions whether gender differences still exist in academic achievement, many researchers are still finding differences in performance as well as general interest in areas related to math and science.

2.9Review of Empirical Studies

Several studies were found to be similar to this investigation on cooperative and problem-based teaching in the school setting. Few of them were reviewed as follows:

Pinkeaw (2005) investigated effectiveness of cooperative teaching method on students' learning achievement in upper–secondary mathematics and English classes. The study specifically sought to determine effect of cooperative teaching on students; achievement and to examine learners' interaction. The subjects were classified into 3 groups of 30 highachievers, 24 moderate achievers, and 28 lowachievers. The researcher taught all classes herselffor 20 periods. The questionnaire on the students'view on interaction was given before teaching. Afterteaching, students were given the test and the samequestionnaire on interaction including their opinionof the STAD approach. The data gathered were analysed using mean. The finding indicated that allstudents' listening and speaking achievements weresatisfactory. No difference was found between pre–teaching and post–teaching on the views of the high and low achievers, but the moderate achievers' views in general decreased significantly after teaching. Their opinions on

the STAD approach were at the satisfactory level but no significant difference was found among the three groups. The study reported a positive effect on learners' achievement.Unfortunately, the study did not report specific methodology used.

The study used two instruments in the study a potential methodological issue. The study did not state any hypothesis as such the basis for generalization becomes limited. The study is different from the present study as it was focused on secondary school level and on different subject matters. However, Pinkeaw's study was on effect of cooperative teaching which makes it related to the current study and as such the present study drew literature from the study.

Sittilert (2005) investigated the effect of CooperativeIntegrated Reading and Composition (CIRC) onEnglish reading comprehension and the opinionstowards classroom atmosphere of secondaryschool students. The study specifically examined the effect of cooperative Integrated Reading and Composition on male and female students' reading comprehension. The subjects were 106 secondary five students taking English Reading.Quasi experimental research design was used for the study. They were divided intotwo groups – an experimental group and a controlgroup. The researcher taught the experimental groupby using the CIRC method and the control group wastaught through the teacher's manual method for eightweeks. The researcher used a reading achievementtest and a questionnaire asking students' opiniontowards classroom atmosphere. The data collected were analyzed using mean and the hypotheses were tested using independent t-test statistics. The results showedthat the English reading comprehension achievementof the experimental group was higher than the controlgroup. The Cooperative Integrated Reading andComposition (CIRC) helped low achievement studentsimprove their ability and the opinions towardsclassroom atmosphere were positive. Therefore, CooperativeIntegrated Reading and Composition is said to have positive effect on reading

comprehension achievement and that cooperative teaching method could help low achievers by improving their achievement. However, the study did not search specific literature related to cooperative teaching.

Sittilert's study is different with the present study because it is in a different setting from the present study. Sittilert's study also focused on secondary school level and English as against University level and corporate accounting for the present study. However, Sittilert's study gave the present study a relevant methodological procedure especially in the area of research design. The present study used pretest-posttest non-equivalent quasi experimental design which was also used in Sittilert's study.

Hampton and Grundnitski (2006) compared theprogress of college business students of differentachievement levels after they had engaged in cooperative teaching. The study had as its specific objectives to compare the performance of different levels of achievers and also compare the gender achievement. Relevant research questions and hypotheses were raised in the study. Relevant literatures were extracted and reviewed in the study. Experimental research design was used for the study. A standardized Achievement Test (SAT) was used to gather data for pre-test and posttest. ANCOVA was used to analysed the data collected. A ratio of the average post–cooperative teaching test scores to the average pre–cooperative teaching test scores for each studentshowed the progress in a semester long introductorycourse. The result indicated that 215 achievement–diverse participants in cooperative teaching did notbenefit equally. Additionally, the low achievingstudents appeared to benefit most from cooperative teaching. This result suggests that cooperative teaching may be particularly valuable in helping lowachievers. This implied that the study showed a positive effect of cooperative teaching method business students' achievement levels. However, the sample size used for the study is too large for an

experimental study. It will be difficult to have a proper control of the different intervening variables as the sample is too large.

Hampton & Grundnitski's study did not focus on specific business area unlike the present study which focused on corporate accounting. However, Hampton & Grundnitski's is similar to the present study especially that it was conducted at a higher level of education like the present study. The present study got a lot of literature from Hampton & Grundnitski's study.

Meteetum (2007) conducted a case study researchon cooperative teaching by using the jigsaw techniquewith nine second-year mathematics major studentsat Naresuan University. The purposes of the studywere to investigate students' use of linguistic featuresin their discourse while being involved in cooperativestructures, to examine the improvement in students'grammar and competence, to investigate the qualityof language input, output, and context in cooperative teaching, and to study to what extent the studentshave positive and negative attitudes towards the cooperative teaching method. Relevant research questions were asked. The design of thestudy was based on a qualitative approach. Researchdata came from four instruments including a grammartest, a structured field observation, a semistructuredinterview and a reflective journal. Theresults showed that there were 39 language functionsand 3 social language functions used in learningsessions. All subjects had higher academic andoral achievement test scores after engaging inthis learning. Moreover, the cooperative languagelearning also generated functional and communicative,frequent, and redundant input. The last findingrevealed that nearly all subjects had positive attitudestowards cooperative teaching in terms of oralcompetence, academic achievement, social skills,personal development, collaborative skills, thinkingskills, and learning atmosphere.Meteetum's study revealed a positive effect of cooperative teaching method of mathematics students. However, the study used a qualitative approach.

The two studies are different in the area of subject matter. However, Meteetum's study is similar to the present study because it was on cooperative teaching method and at University level just like the present study.

Somapee (2008) compared critical thinking skillsof students who studied Business English I atChiangrai Commercial School using the cooperative teaching method with those of students using thetraditional group work method and surveyed theopinions of students toward the cooperative teaching method. The study asked relevant research questions and formulated appropriate research hypotheses. The study combined both experimental and survey designs. A pre-test was used to assign students soboth had the same level of the critical thinking skills.During the eight weeks of teaching, unit pre-tests andpost-tests were given to students at the beginning andat the end of each unit respectively. After theimplementation, the pre-test was assigned for them totake as the post-test. Then, two sets of averagedscores taken from the pre-test and post-test werecompared by t-test. A questionnaire was then givento the experimental group to assess their opinionabout cooperative teaching. The results of the testrevealed that critical thinking skills of students in theexperimental group were higher than those in thecontrol group. The post-test scores of students whowere taught through the cooperative teaching methodwere remarkably higher than the post-test scores ofstudents who were taught through the traditionalgroup work method at $p < .05$ level. Moreover, theunit post-test scores of the experimental group werehigher than those of the control group as thestatistical difference was significant at $p < .05$ level.The results of the questionnaire showed that students'opinions towards the cooperative teaching weremoderately positive. The study revealed that cooperative teaching method of teaching is better than the traditional method. However, the study combined both experimental study and survey study in one study, if not a better result would have emerged.

Somapee's work is different from the present study in the approach to the study because Somapee's was a combination of experimental and survey while the present study is only experimental. However, Somapee's study is similar to the present study as they both study on cooperative teaching method. It helped the present study in the area of literature and setting of the control measures.

Thupapong (2008) studied the effects ofStudents Teams–Achievement Division (STAD)learning on English reading achievement and cooperationwith 78 secondary school students. Specifically the study sought to determine the effect of cooperation between students on their achievement. Experimental design was used for the study. Thesubjects were divided into two groups-theexperimental group taught by the STAD approachand the control group taught by the teacher's manualfor six weeks. The instruments used in this studywere reading achievement tests and cooperationtests. The data gathered were analyzed using mean and the hypotheses were tested using ANOVA. The results revealed that the gained Englishreading achievement scores of the students taught bythe STAD approach were not significantly differentfrom those of the students taught by the teacher'smanual approach at the level of .05. The gainedscores of the high, medium, and low achievers taughtby the STAD teaching approach were not significantlydifferent from one another, also at the levelof 0.05. The last finding, the high, medium, and lowachievers taught by the STAD teaching approachwere not significantly different in their cooperation atthe level of 0.05. This study revealed that cooperation among students increased their English reading achievement. However, the study did not show how the subjects were grouped into experimental and control.

Thupapong's work is different from the present study because Thupapong's study was conducted on secondary school students while the present study focused on University students.

However, Thupapong's study is similar to the present study because both of them are on cooperative teaching method.

Another study by Almanza(2009) examined a comparison of theeffectiveness of cooperative teaching in small groupswith whole classroom instruction using the DirectedReading Thinking Activity (DRTA) during reading.Subjects for the eight-week study were 53 sixthgradersfrom two classes in Brooklyn, New York.The stories used all came from the same basal reader.A reading comprehension test was given each childafter each story was completed. Children in cooperative teaching groups read stories on their own andwrote any questions or comments in their reading log.The next day, each group met to discuss the story.Students worked in groups for approximately 4 weeks.For the next 4 weeks, the students continued to read,using the DRTA method, and when the story wascompleted the children read and answered questionsabout the story independently. A reading comprehensiontest was again given after the completion ofeach story. Results indicated that the majority ofchildren in the cooperative reading groups scoredhigher on their reading comprehension tests than whenthey used the DRTA. Findings suggested that cooperative teaching can be used as an instructional method whereby students can improve their reading comprehension. This study showed that cooperative teaching has positive effect on students' DirectedReading Thinking Activity. However, the sample size was too small, thereby calling any conclusion into question.

Almanza's study was on secondary school with subject matter on reading comprehension while the present study covers corporate accounting of University students. However, Almanza's study shared the same independent variable with the present study and as such the present study benefited a lot from the literature of this study.

Dozark (2010) investigated the role of quality practices and cooperative teaching using student ratings of satisfaction across a wide range of courses at a comprehensive community college (n = 368 from a population of 10,000). The study was an experimental study. The students were enrolled in 23 sections of 13 different courses taught by 12 different instructors in the Arts and Sciences and Applied Science Divisions of the community college. Other independent variables measured in addition to cooperative teaching included age, assessment techniques used by the instructor, GPA, marital status, enrollment status, credits earned, gender, household income, program type, employment status, student involvement, and student expectations. Data were analyzed using t-tests, ANOVA, and linear regression. Dozark's study found that cooperative teaching significantly increased student satisfaction ratings of courses and instruction for the sample population studied. Student involvement and student expectations were found to be significant predictors of student satisfaction. No studies were found that used student ratings to measure the impact of cooperative teaching on learning outcomes or course learning environment factors, as investigated in this study.

The two studies are different because Dozark's study was conducted on secondary school level while the resent study is on University level. However, Dozark's study is similar to the present study in many areas such as independent variable (cooperative teaching method), research design (experimental design) and others. For this reason, the present study benefited a lot from the literature and findings og Dozark's study.

Siriratana (2010) compared English reading comprehension,writing ability, cooperative teaching activities through instruction using Top-Level Structure(TLS) with CIRC and the Teachers Manual. Thesubjects for this study consisted of 80 Mathayomsuksa5 students in the first semester of the 2010 academic year of Debsirin School, Bangkok. Theywere selected by

using simple random sampling anddivided into the experimental and control groups, with40 students in each. The randomized control grouppretest/posttest design was used in the experiments.The experimental group was taught through themethod based on the Top - Level Structure (TLS) withCIRC, whereas the control group was taught throughthe method in the Teachers Manual Each group wastaught with lesson of the same content for twenty 50minute periods. The instruments used in this studywere English reading comprehension test, writingability test and cooperative test. The data werestatistically analyzed by t-test for IndependentSamples and t-test for dependent samples. Theresults of this study revealed that the English readingcomprehension, between the experimental andcontrol groups, was significantly different at the 0.01level. The English writing ability, between theexperimental and control groups, was significantlydifferent at the 0.01 level. The cooperative teaching ability, between the experimental and control groups,was significantly different at the 0.01 level. TheEnglish reading comprehension, the English writingability and the cooperative teaching ability of theexperimental group, between the pretest and posttest,was significantly different at the .01 level. TheEnglish reading comprehension, the English writingability and the cooperative teaching ability of thecontrol group, between the pretest and posttest, wassignificantly different at the .01 level. The study revealed a positive effect of cooperative teaching method because cooperative teaching did better. However, the study chose a very low significantly level thereby giving more chances of making type II error.

Siriratana's was on English reading comprehension while the present study is on corporate accounting. However, Siriratana's study is similar to the present study because they both studied cooperative teaching on students' achievement

Seetape (2011) studied the effects of cooperative teaching on mathematics achievement and thestudents' behavior towards this learning method usedin the mathematics classroom. The study raised specific objectives to determine the effect of cooperative teaching on mathematics achievement and to compare the performance of male and female students. Research questions and hypotheses were formulated. Experimental design was used for the study. The samples were 29 secondary school students in Uthaithani selected by means ofpurposive sampling. Students were taught for eightperiods, each of which lasted fifty minutes. Theinstruments were mathematics achievement test, cooperative teaching behavioral observation sheet,and lesson plans using cooperative teaching technique.The results of the study showed that the post-testscores after learning mathematics using cooperative teaching were higher than the pre-test scores atthe 0.05 level of significance. Most of the samplesdisplayed very good behavior in cooperating in theirtasks. Their cooperative behavior had increasinglydeveloped. Some elements of poor behavior haddecreased by up to 14.29 percent. The study revealed positive effect on mathematics achievement, however the sample size for the study was too small thereby calling any conclusion into question.

Seetape's study is similar to the present study because they both share the same independent variable (cooperative teaching method). Also, Seetape's study was on mathematics achievement as the dependent variable which is related to the present study's dependent variable (performance in corporate accounting).

Furthermore, Dods (2012) conducted a study of secondary biochemistry students to investigate the effectiveness of problem-based teaching in promoting knowledge acquisition and retention. The specific objectives of the study were to; examine the effect of problem-based teachingon Knowledge acquisition and effect of problem-based teachingonretention. The

researcher used survey design for the study. The researcher used students from the Illinois Mathematics and Science Academy which is a highly selective magnet school. Dods reported that students acquired knowledge at about an equal rate, regardless of instructional method used. This equality in knowledge acquisition may be due to the type of self-regulation used by these high achieving students and their high aptitude for science topics. The researcher also reported that students taught using problem-based teaching had greater retention of knowledge. The study showed that problem-based teaching method did not influence the knowledge acquisition of students better than other methods, but resulted in better retention. Unfortunately, the study was a survey instead of experiment, a potential methodological issue.

Dods's study is similar to the present study because both share the same independent variable (problem-based teaching). However, they are different because Dods's study had two dependent variables (knowledge acquisition and retention) while the present study has one (performance).

Gabr and Mohamed (2012) assessed the effect of problem-based teaching on undergraduate nursing students enrolled in a nursing administration course at Mansoura University in Egypt. Using an experimental comparative research design, the researchers divided a total of 260 nursing students into two equal groups: a control group and an experimental group. Data were collected using four indices: the Self-Directed Learner Readiness Scale (SDLRS), five problem-solving scenarios related to managerial skills, a students' problem-solving evaluation sheet, and a students' opinion questionnaire sheet. Gabr and Mohamed found a significant difference in knowledge, problem-solving grades, and self-directed learning, with the problem-based teaching group scoring higher than the non-problem-based teaching group ($p < 0.05$). The study concluded that the problem-based teaching method had a positive effect on knowledge and skills acquisition. The study reported that the problem-based teaching students gain more

knowledge and they were more motivated to learn than their non-problem-based teaching counterparts. Gabr and Mohamed concluded that problem-based teaching is a powerful approach to learning for nursing students seeking practical problem-solving experience and self-directed learning.

Although this study was carried out outside the boundaries of Nigeria, the study is captured in this work because it is related to this in terms of problem-based teaching methods used. Furthermore, because this study is on students' performance and the study reviewed is on students' achievement, the researcher believes that there is a relationship between the two.

Most recently, Burris (2013) conducted a study conducted to determine the effect of problem-based teaching on critical thinking ability and content knowledge of secondary agriculture students. Burris study had two objectives and two research questions. Burris used supervised study (also known as directed study) as the compared method of instruction. In supervised study, students were given study questions and asked to refer to a resource text in order to locate the answers. The act of searching for information without the aid of the teacher provided students with a set of problems in which they must solve. The study used 65 students as sample. Mean was used for research questions and ANOVA was used to test the hypotheses. The researcher reported that students in the supervised study group produced higher scores on critical thinking ability and content knowledge. Although there was a statistically significant difference in critical thinking ability scores, Burris reported that there was no practical difference. Burris argued that the content knowledge exam measured student knowledge and comprehension (low-order thinking) and problem-based teaching has been reported as more effective with developing higher-order thinking skills. Therefore, the instructional method used should depend on the educational objective. In other words, problem-based teaching may be most effective for accomplishing educational objectives written and assessed at higher levels of cognition. In terms

of the results of the critical thinking appraisal, Burris concluded that the instrument used in the study may have measured a specific component of critical thinking not affected by instructional methods and that an instrument measuring problem-solving ability may be a more appropriate data collection tool. However, the study did not state the actual sample population, thereby making the findings unrealistic.

Burris study was a directed study while the present study is an experimental study. However, Burris's study is similar to the present study because it shares one of the independent variables with the present study and therefore, the present study benefited from the literature and the findings of the study of Burris.

2.10 Summary of Review of Related Literature

In this chapter, literature was reviewed on conceptual definitions of teaching methods, teaching methods in university education, concept of performance and business education programme. Literature was also reviewed on cooperative teaching method and students' performance, problem-based teaching method and students' performance and effect of gender on performance. Thirteen related empirical studies were also reviewed. From the reviewed made, none of the authors investigated on the effects of cooperative and problem-based teaching methods on the performance of business education students in corporate accounting in universities in south-west zone, Nigeria. It is this gap that the result of this research work helped to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter focuses the research design and methodology used for the study. The chapter is presented under the following sub-headings:

3.1. Research Design

3.2. Population of the Study

3.3. Sample Size and Sampling Procedure

3.4. Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5. Procedure for Data Collection

3.6. Procedure for Data Analysis

3.1 Research Design

The study was a quasi-experimental one. This design is used when there is no randomization. This is inlinewith Raymond (2013) who stated that quasi-experimental design can be used when it is not possible for the researcher to randomly sample the subjects and assign them to treatment groups. The major characteristics of this design is the use of two or more already existing or intact groups randomly assigned for the study (Jack & Norman, 2003). This design is used for this study because intact classes are assigned to the three learning methods of cooperative teaching, problem-based teaching and lecture method. This is because is not possible for the researcher to randomly sample the students and assign them to the groups.

3.2 Population of the Study

The population of the study was 119. It comprised of 300 level business education Accounting option students who were at the level of offering Corporate Accounting in the universities in the South-west zone, Nigeria, as shown in Table 3.1.

Table 1 Population of the study

S/N	University	State	No. of male students	No. of female students	Total
1	Ekiti State University, Ado Ekiti	Ekiti	19	12	31
2	Olabisi Onabanjo University, Ago Iwoye	Ogun	12	8	20
3.	University of Lagos, Lagos	Lagos	21	15	36
4.	Tai Solarin University of Education, Ijebu Ode.	Ogun	19	13	32
Total			**71**	**48**	**119**

Source: Head of department's office of each University, 2014/2015 Academic Session

3.3 Sample Size and Sampling Procedure

Three universities were selected for the experiment from the four universities offering business education in the South-west zone, Nigeria. They are University of Lagos, Lagos, Tai Solarin University of Education, Ijebu Ode and Ekiti State University, Ado Ekiti. The universities were chosen purposefully because the researcher wanted each state to be represented. The number of students in each university were used as they were, because the number was sizeable for the researcher to handle. The breakdown of the sample size for the study is as given in Table 3.2

Table 2 Sample size for the study

S/N		University	State	No. of male students	No. of female students	Total
1	Experimental Group One	University of Lagos, Lagos	Lagos	21	15	36
2	Experimental Group Two	Ekiti State University, Ado Ekiti	Ekiti	19	12	31

3.	Control Group	Tai Solarin University of Education, Ijebu Ode. Ogun	19	13	32
Total			**59**	**40**	**99**

Source: Researcher's design, 2015

The three universities were selected using purposive sampling. In Ogun State where there are two universities, random sampling was used to select one university. Hat drawn technique was adopted, where the name of each university (Olabisi Onabanjo University, Ago Iwoye and Tai Solarin University of Education was written on pieces of papers and folded. The papers were put in a container and shuffled very well before one was picked. Random technique was also used to assign the three universities to the experiment groups. Hat drawn technique was adopted, where E1 (Experimental group 1, cooperative teaching method), E2 (Experimental group 2, problem-based method) and C (control group, lecture method) were written on pieces of paper and folded. The papers were put in a container and shuffled very well before three people were asked to pick one for each university (University of Lagos, Lagos, Tai Solarin University of Education, Ijebu Ode and Ekiti State University, Ado Ekiti). After using this procedure University of Lagos, Lagos was assigned to E1 (Experimental group 1, cooperative teaching method), Ekiti State University, Ado Ekiti was assigned to E2 (Experimental group 2, problem-based method) and Tai Solarin University of Education, Ijebu Ode was assigned to the control group (Control group).

3.4. Instrument for Data Collection

The instrument for data collection was Corporate Accounting Performance Test (CAPT). The instrument consists of two sections; A and B. Section A was a pretest which was made up of 20 multiple objective test questions and one essay question on final accounts of partnership

(Appendix A). The duration of the pretest was 60 minutes. Section B was a post-test which was made up of 20 multiple objective test questions and one essay question on final accounts of companies (Appendix C). The duration of the post-test was 60 minutes. The pre-test was scored 100%, the objective test carries 40% i.e 2 marks for each while the essay question carries 60%. The scoring of the posttest was the same with that of the pre-test. The range of scores obtainable in pre-test and posttest is 0% – 100%.

3.4.1 Validity of the Instrument

After drafting the instrument, it was first given to the researcher's supervisors, thereafter; the instrument was given to four experts in test and measurement department Ahmadu Bello University, Zaria. These experts were requested to examine the instrument and make observation and suggestions on its appropriateness. Their suggestions and comments were used in modifying the instrument. The validation letter given to the experts is attached as appendix U.

3.4.2 Pilot Study

A pilot study was carried out at the department of Business and entrepreneurship Education, Kwara State University, Malete, using 32 students. The thirty two (32) students are 400 level students because they have learnt both the partnership and company accounts. The pretest and post-test questions were administered to the students. This University was used because it does not form part of the study but offers the same course. The data collected were analyzed using descriptive statistic (mean and standard deviation) and independent t-test. All the ambiguous items in the instrument were detected and corrected through the pilot study.

3.4.3 Reliability of the Instrument

The reliability of the instrument was determined by statistically analyzing the data collected from the pilot study using Cronbach Alpha. The reliability coefficient calculated for

the instruments was 0.81. This reliability coefficient is high and therefore the instrument is considered reliable and stable, Nworgu (2006) stated that reliability estimate of 0.80 and above are high and the instrument for which it is calculated is reliable and stable.

3.5. Procedure for Data Collection

The study was conducted during the regular school semester lessons. The researcher collected a letter of introductionfrom the Head, Department of Vocational and Technical education Ahmadu Bello University, Zaria. This letter was presented to Head of Department of universities where the study was conducted. The researcher then proceeded to the class where the researcher and the students introduced themselves. This was done to create rapport between the researcher and the students. The experimental group one was taught using cooperative teaching method, experimental group two was taught using problem-based teaching method, while the control group was taught using lecture method. The researcher taught all the groups (cooperative, problem-based and traditional lecture methods). For the first week, the pre-test was administered to all the groups to see that the students are far apart academically, after that the groups were exposed to the trading account of companies using cooperative teaching method for experimental group one (see appendix F), problem-based teaching method for experimental group two (see appendix K) and lecture teaching method for the control group (see appendix P). Profit and loss account package was given to the groups for the second week using cooperative teaching method for experimental group one (see appendix G), problem-based teaching method for experimental group two (see appendix L) and lecture teaching method for the control group (see appendix Q).

For the third week, all the groups were exposed to appropriation account of company using cooperative teaching method for experimental group one (see appendix H), problem-based teaching method for experimental group two (see appendix M) and lecture teaching method for

the control group (see appendix R). For the fourth, all the groups were exposed to the balance sheet of company using cooperative teaching method for experimental group one (see appendix I), problem-based teaching method for experimental group two (see appendix N) and lecture teaching method for the control group (see appendix S). For the fifth, all the groups were exposed to the balance sheet of company using cooperative teaching method for experimental group one (see appendix J), problem-based teaching method for experimental group two (see appendix O) and lecture teaching method for the control group (see appendix T).The treatment period lasted for five weeks. During the treatment period, each group met once a week for a period of 3 hours. At the end of the experiment on the fifth week, Corporate Accounting Performance Test (CAPT) post-test was administered for duration of one hour.

3.6 Procedure for Data Analysis

The demographic variable was analyzed using percentage while the research questions were answered using mean and standard deviation. Null hypotheses one and two were tested using regression statistic, hypotheses threeandfour were tested using t-test. Hypothesis five was tested using one way Analysis of Variance (ANOVA). All the hypotheses were tested at 0.05 level of significance. Regression was considered appropriate for finding the effects of the methods of teaching. The t-test was considered appropriate for analyzing the difference between the mean of two groups. Therefore, it is considered appropriate to be used to determine for significant differences between male and female students' performance in this study. One way Analysis of Variance (ANOVA) was considered appropriate for hypothesis seven because the hypothesis is comparing the means of more than two groups (cooperative teaching, problem-based teaching and lecture groups).

Decision: For the mean; any group with the highest mean value was adopted to have performed better and any group with the lowest mean performed the least. In the test of hypotheses, where the calculated t and F value were equal or greater than the Table value, the null hypotheses were rejected. Where calculated t and F value were less than the Table value, the null hypotheses were retained.

CHAPTER FOUR
PRESENTATION AND ANALYSIS OF DATA

This chapter presents the results and discussion of the data analysis for the study. The presentations were organized according to research questions and null hypotheses that guided the study. They are presented under relevant headings as follows:

4.1 Analysis of Demographic Variables of Students

The demographic variables for the study were analyzed in Tables 3 as follows:

Table 3 Percentage Distribution of Students by Gender

Gender	Frequency	Percentage (%)
Male	59	59.6
Female	40	40.4
Total	**99**	**100**

Source: Field survey, 2016

Table 3 revealed that there are 59 male students representing 58.6% used in the study and 40 female students representing 40.4%. This indicated that there are more male students than female students in business education Accounting option in the institutions used for the study.

4.2 Answers to Research Questions

The data to answer the research questions of the study were analyzed and the results presented in Tables 4 to 8.

Research Question One: **What is the effect of cooperative teaching method on the performance of business education students in Corporate Accounting in universities in South-west zone, Nigeria?**

Data collected to address this research question are analyzed in Table 4.

Table 4 **Mean and Standard Deviation on Effect of Cooperative Teaching Method on University Students' Performance in Corporate Accounting**

GROUP	N	$\bar{X}$	SD
Cooperative Method	36	71.92	9.03
Lecture method	32	42.28	6.13
MEAN & SD DIFFERENCE		29.64	2.90

Source: Field survey, 2016

The data presented in Table 4 revealed that the treatment group taught corporate accounting with cooperative teaching method had a posttest mean score of 71.92and standard deviation of 9.03($\bar{X}$ = 71.92; SD = 9.03)while the control group taught corporate accounting with lecture method had a posttest mean score of 42.28 and standard deviation of 6.13 ($\bar{X}$ = 42.28; SD = 6.13). The result gave a mean difference of 29.64which indicated that cooperative teaching method had effect on students' performance in corporate accounting. The low standard deviation difference (2.90) showed that the scores of students are clustered around their respective mean.

Research Question Two: **What is the effect of problem-based method on the performance of business education students in Corporate Accounting in universities in South-west zone, Nigeria?**

Data collected to address this research question are as shown in Table 5.

Table 5 Mean and Standard Deviation on Effect of Problem-based Teaching Method on University Students' Performance in Corporate Accounting

GROUP	N	$\overline{X}$	SD
Problem-based Method	31	66.23	9.89
Lecture method	32	42.28	6.13
Mean & SD Difference		23.95	3.76

Source: Field survey, 2016

The data presented in Table 5 revealed that the treatment group taught corporate accounting with problem-based teaching method had a posttest mean score of 66.23and standard deviation of 9.89 ($\overline{X}$ = 66.23; SD = 9.89)while the control group taught corporate accounting with lecture method had a posttest mean score of 42.28 and standard deviation of 6.13 ($\overline{X}$ = 42.28; SD = 6.13). The result gave a mean difference of 23.95which indicated that problem-based teaching method had effect on students' performance in corporate accounting. The low standard deviation difference (3.76) showed that the scores of students are clustered around their respective mean.

Research Question Three: What is the effect of gender on the academic performance of business education students taught Corporate Accounting using cooperative teaching method in universities in South-west zone, Nigeria?

Data collected to address this research question are as shown in Table 6.

Table 6 **Mean and standard deviation on Effect of Gender on University Students' Performance Taught Corporate Accounting using Cooperative Teaching Method**

GENDER	N	$\overline{X}$	SD
Male	21	77.00	7.34
Female	15	70.80	6.98
MEAN & SD DIFFERENCE		6.20	0.36

Source: Field survey, 2016

The data presented in the Table 6 showed that male students taught corporate accounting with cooperative teaching method had a posttest meanscore of 77.00 and standard deviation of 7.34($\overline{X}$ = 77.00; SD = 7.34). While, female students taught corporate accounting with cooperative teaching method had a posttest mean score of70.80 and standard deviation of 6.98 ($\overline{X}$ = 70.80; SD = 6.98). This gave a mean difference 6.20 between male and female students with male students having higher mean score. The low standard deviationvalueindicated that there is low variability in their mean scores. The result showed that male students taught corporate accounting usincooperative teaching method had higher mean score than female students ($\overline{X}_{male}$ = 77.00; $\overline{X}_{female}$ = 70.80). Hence there was effect attributed to gender on the performance of students taught corporate accounting usingcooperative teaching method.

Research Question Four: **What is the effect of gender on the academic performance of business education students taught Corporate Accounting using problem-based teaching method in universities in South-west zone, Nigeria?**

Data collected to address this research question are as shown in Table 7.

Table 7 **Mean and standard deviation on Effect of Gender on University Students' Performance Taught Corporate Accounting using Problem-based teaching Method**

GENDER	N	$\overline{X}$	SD
Male	19	66.53	13.10
Female	12	65.75	10.25
Mean & SD Difference		0.78	2.85

Source: Field survey, 2016

The data presented in the Table 7 showed that male students taught corporate accounting with problem-based teaching method had a posttest mean score of 66.53 and standard deviation of 13.10($\overline{X}$ = 66.53; SD = 13.10). While, female students taught corporate accounting with problem-based teaching method had a posttest mean score of65.75 and standard deviation of 10.25 ($\overline{X}$ = 65.75; SD = 10.25). This gave a mean difference 0.78 between male and female students with male students having higher mean score. The low standard deviationvalue indicated that there is low variability in their mean scores. The result showed that male students taught corporate accounting with problem-based teaching method had higher mean score than female students ($\overline{X}_{male}$ = 66.53; $\overline{X}_{female}$ = 65.75). Hence there was a slight effect attributed to gender on the performance of students taught corporate accounting usingproblem-based teaching method.

Research Question Five: **What is the difference in the academic performance of business education students taught Corporate Accounting using cooperative teaching, problem-based and traditional lecture methods in universities in South-west zone, Nigeria?**

Data collected to address this research question are as shown in Table 8.

Table 8 Mean and Standard Deviationon Difference in Academic Performance of Business Education Students Taught Corporate Accounting using Cooperative teaching, Problem-based and Traditional Lecture Methods

GROUP	N	$\overline{X}$	SD
Cooperative teaching Method	36	71.92	9.04
Problem-based Teaching Method	31	66.23	9.89
Traditional Lecture Method	32	42.44	6.43

Source: Field survey, 2016

The data in Table 8revealed that cooperative teaching students (experimental group 1) had performance mean score and standard deviation of 71.92 and 9.04, respectively, ($\overline{X}$ = 71.92; SD = 9.04) Experimental group two students taught corporate accounting with problem-based method had performance mean score of 66.23 and standard deviation of 9.89 ($\overline{X}$ = 66.23; SD = 9.89). The control group students taught corporate accounting with traditional lecture method had a meanscore of 42.44 standard deviation of 6.43($\overline{X}$ = 42.44; SD = 6.43). The result in the Table showed that cooperative teaching group performed better than both problem-based and lecture groups. While problem-based method group performed better than the traditional lecture group. This indicated that cooperative teaching method had more positive effect on performance of business education students in corporate accounting, followed by problem-based method and then the traditional lecture method.

4.3 Test of Hypotheses

The null hypotheses for the study were tested at 0.05 level of significance and the summaries are presented in Tables 9 to 14 as follows:

Hypothesis One: **Cooperative teaching method has no significant effect on the academic performance of business education students in Corporate Accounting in universities in South-west zone, Nigeria.**

Data collected to test this hypothesis are as shown in Table 9 as follows:

Table 9 **Regression Analysis on Test of Effect of Cooperative Teaching Method on University Students' Performance in Corporate Accounting**

Group	N	Mean	Std	Df	F	R^2	Adjusted R^2	P-value.
Cooperative Teaching Method	36	71.92	9.03					
				1,66	15.23	0.836	0.694	0.001
Traditional Lecture Method	32	42.28	6.13					

Source: Field survey, 2016

Table 9 showed the effect of cooperative teaching method on performance of university students in corporate accounting. The table revealed coefficient of correlations (R) of 0.836 andadjusted R square of 0.694. This means that 69.4% of the variance in the students' performance was accounted for by the effect of the independent variable (cooperative teaching method). The effect of cooperative teaching method was statistically significant (F(1,66) = 15.23; p=0.001). Using the unstandardized regression coefficient to determine the effect of cooperative teaching method on performance of students in corporate accounting, it was revealed that cooperative method has statistically significant effect on performance of students in corporate accounting(β=23.47, t=12.34).

Hypothesis Two: **Problem-based teaching method has no significant effect on the academic performance of business education students in Corporate Accounting in universities in South-west zone, Nigeria.**

Data collected to test this hypothesis are as shown in Table 10 as follows:

Table 10 Regression Analysis on Test of Effect of Problem-based teaching Method on University Students' Performance in Corporate Accounting

Group	N	Mean	SD	Df	F	R	Adjusted R^2	Sig.
Problem-based Teaching Method	31	66.23	9.89					
				1,61	11.17	0.692	0.471	0.003
Traditional Lecture Method	32	42.28	6.13					

Source: Field survey, 2016

Table 10 showed the effect of problem-based teaching method on performance of university students' in corporate accounting. The table revealed coefficient of correlations (R) of 0.692 andadjusted R square of 0.471. This means that 47.1% of the variance in the students' performance was accounted for by the effect of the independent variable (problem-based teaching method). The effect of problem-based teaching method was statistically significant ($F(1,61) = 11.17$; $p=0.003$). Using the unstandardized regression coefficient to determine the effects of cooperative teaching method on performance of students in corporate accounting, it was revealed that cooperative method has statistically significant effect on performance of students in corporate accounting($\beta=17.78$, $t=7.34$).

Hypothesis Three: There is no significant difference in the academic performance of male and female business education students taught Corporate Accounting using cooperative teaching method in universities in South-west zone, Nigeria.

Data collected to test this hypothesis are as shown in Table 11 as follows:

Table 11 t-test on Test of Difference in Academic Performance of Male and Female Business Education Students Taught Corporate Accounting using Cooperative Teaching Method

Gender	N	Mean	SD	t-cal	t-crit	Df	p-value
Male	21	77.00	7.99	1.33	2.03	34	0.132
Female	15	70.80	6.48				

Source: Field survey, 2016

The data in Table 11 revealed that there are 21 male and 15 female students in experimental group one (cooperative teaching group). Male students had mean score of 77.00 and standard deviation of 7.99 ($\bar{X}$ = 77.00; SD = 7.99) while female students had mean score of 64.80 and standard deviation of 4.83 ($\bar{X}$ = 70.80; SD = 6.48). The calculated value of t is 1.33 (t_{cal} = 1.33) and critical value is 2.03 (t_{crit} = 2.03). The observed p-value is 0.132 which is greater than the fixed p-value of 0.05 (P>0.05). Since the calculated value of t is greater than the critical value of t (t_{34} = 1.33, P=0.132), the null hypothesis that stated that there is no significant difference in the academic performance of male and female business education students taught Corporate Accounting using cooperative teaching method in universities in South-westzone, Nigeria was therefore not rejected. This implied that male students taught corporate accounting using cooperative teaching method did not perform statistically significantly better than their female counterparts. Therefore, there was no significant difference in the academic performance of male and female business education students taught Corporate Accounting using cooperative teaching method in universities in South-westzone, Nigeria.

Hypothesis Four: There is no significant difference in the academic performance of male and female business education students taught Corporate

Accounting using problem-based teaching method in universities in South-west zone, Nigeria.

Data collected to test this hypothesis are as shown in Table 12 as follows:

Table 12 t-test on Test of Difference in Academic Performance of Male and Female Business Education Students Taught Corporate Accounting using Problem-based Teaching Method

Gender	N	Mean	SD	t-cal	t-crit	Df	p-value
Male	19	66.53	13.10	0.17	2.03	29	0.863
Female	12	65.75	10.25				

Source: Field survey, 2016

The data in Table 12 revealed that there are 19 male and 12 female students in experimental group two (problem-based group). Male students had mean score of 66.53 and standard deviation of 13.10 ($\bar{X}$ = 66.53; SD = 13.10) while female students had mean score of 65.75 and standard deviation of 10.25 ($\bar{X}$ = 65.75; SD = 10.25). The calculated value of t is 0.17 (t_{cal} = 0.17) and critical value is 2.03 (t_{crit} = 2.03). The observed p-value is 0.863 which is greater than the fixed p-value of 0.05 (P>0.05). Since the calculated value of t is less than the critical value of t (t_{29} = 0.17, P=0.863), the null hypothesis that stated that there is no significant difference in the academic performance of male and female business education students taught Corporate Accounting using problem-based teaching method in universities in South-westzone, Nigeria was therefore not rejected. This implied that both male and female students taught corporate accounting using problem-based method performed alike. This means that they did not differ significantly in their performance in corporate accounting.

Hypothesis Five: There is no significant difference in the academic performance of business education students taught Corporate Accounting using

cooperative, problem-based and lecture methods in universities in South-west zone, Nigeria.

Data collected to test this hypothesis are as shown in Table 13 as follows:

Table 13 Analysis of Variance on Test of Difference in Academic Performance of Business Education Students Taught Corporate Accounting using Cooperative, Problem-based and Lecture Methods

Group	N	Mean	SD	F-cal	F-crit	Df	p-value
Experimental Group One	36	71.92	9.04				
Experimental Group Two	31	66.23	9.89	51.75	3.09	2,96	0.00
Control Group	32	42.44	6.43				
Total	**99**	**62.55**	**13.64**				

Source: Field survey, 2016

The data presented in Table 13 revealed that there are 36 students in experimental group one, 31 students in experimental group two and 32 students in the control group. Experimental group one students had a mean score of 71.92 and standard deviation of 9.04 ($\bar{X}$ = 71.92; SD = 9.04), experimental group two students had mean score of 66.23 with standard deviation of 9.89 ($\bar{X}$ = 66.23; SD = 9.89) and control group students had mean score of 42.44 with standard deviation of 6.13 ($\bar{X}$ = 42.44; SD = 6.43). The calculated value of F is 51.75 (F_{cal} = 51.75) and critical value is 3.09 (F_{cal} = 3.09). The observed p-value is 0.00 which is less than the fixed p-value of 0.05 (P<0.05). Since the calculated value of F is greater than the critical value of F ($F_{2,96}$ = 51.75, P=0.00), the null hypothesis that stated that there is no significant difference in academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods in universities in South-westzone, Nigeria was therefore rejected. This implied that there was significant difference inacademic performance of

business education students taught Corporate Accounting using cooperative, problem-based and lecture methods. A critical look at the mean scores revealed that experimental group one (cooperative teaching group) students ($\bar{X}$ = 71.92) performed better than students in experimental group two ($\bar{X}$ = 66.23) and the control group ($\bar{X}$ = 42.44). Experimental group two students also performed better than the control group students.

Since there was significant difference in the academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods, Scheffe post hoc comparison test was performed to determine the group where the difference lies as given in Table 14 as follows:

Table 14 Scheffe on Comparison of the Difference between the Mean Performances of Students taught Corporate Accounting using Cooperative, Problem-based and Lecture Methods

Group (i)	Group (j)	Mean difference (i) –(j)	Sig
Experimental Group One	Experimental Group Two	5.69	0.048
	Control Group	23.48	0.000
Experimental Group Two	Experimental Group One	5.69	0.048
	Control Group	17.79	0.000
Control Group	Experimental Group One	23.48	0.000
	Experimental Group Two	17.79	0.000

- The mean difference is significant at 0.05 level

Table 14 showed the comparison of mean of the groups. The mean difference between experimental one (cooperative teaching) and experimental group two (problem-based) was 5.69 which is significant at 0.05 because the observed p-value is less than 0.05 (MD = 5.69; P = 0.048). Mean difference between experimental one and the control group (lecture group) was 23.48 which is significant because the p-value is less than 0.05 (P=0.000). The mean difference between experimental group two and the control group was 17.79 which is significant at 0.05 (P

= 0.000). The implication is that the mean of the three groups are significantly different from each other. This means that cooperative teaching students did significantly better than problem-based and traditional lecture students. In the same vein, problem-based students performed significantly better than the traditional lecture students.

4.4 Summary of Major Findings

Based on the analyses of data, the following findings emerged:

1. The result of data analyzed to answer research question one in Table 4 revealed that cooperative teaching had effect on performance of business education students in corporate accounting. Cooperative teaching mean score was 71.92 and lecture teaching method mean score was 42.28, this gave a mean differenceof29.64. Hypothesis one tested in Table 9 revealed that cooperative teaching method had significantpositive effect on business education university students' performance in corporate accounting (p=0.001).
2. The result of data analyzed to answer research question two in Table 5 revealed that problem-based teaching had effect on performance of business education students in corporate accounting.Problem-based teaching mean score was 66.23 and lecture teaching method mean score was 42.28, this gave a mean difference of 23.95. Hypothesis two tested in Table 10 revealed that problem-based teaching method had significant effect on business education university students' performance in corporate accounting (p=0.003).
3. The result of data analyzed to answer research question three in Table 6 revealed that male students taught corporate accounting usingcooperative teaching method had higher mean score than female students. The mean score of male students was 77.00 while the mean score of female students was 70.00 which gave a mean difference of 6.20. Hypothesis three tested in Table 11 revealed that there was no significant difference

between the academic performance of male and female students taught corporate accounting using cooperative teaching method (p=0.132).

4. The result of data analyzed to answer research question four in Table 7 revealed that male students taught corporate accounting with problem-based teaching method had higher mean score than female students. The mean score of male students was 66.53 while the mean score of female students was 65.75 which gave a mean difference of 0.78.Hypothesis four tested in Table 12 revealed that there was no significant difference between the academic performance of male and female students taught corporate accounting using problem-based method (p=0.863).
5. The result of data analyzed to answer research question five in Table 8 revealed that cooperative teaching group performed better than both problem-based and lecture groups. While problem-based method group performed better than the traditional lecture group. Cooperative teaching mean score was 71.92, problem-based teaching mean score was 66.23 while lecture teaching method mean score was 42.28. Hypothesis five tested in Table 13 revealed that there was significant difference in the academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods (p=0.000).

4.5 Discussion of Major Findings

This study was conducted to determine the effects of cooperative teaching and problem-based methods on the academic performance of business education students in corporate accounting in universities. The study found that cooperative teaching method had effect onacademic performance of business education students in corporate accounting. This means that out of the three methods used in this study, cooperative teaching method proved to be the best.

This finding supports the earlier findings of Slavin (2007) who found that cooperative teaching results in greater mastery of a subject than individual learning does. Slavin stated that cooperative teaching method greatly improved the performance of students in introductory accounting course than the lecture method.

Contrary to this finding, Springer (2009) stated that the vast majority of studies about cooperative teaching are with children in primary and secondary schools and that the it did not improve the performance of the pupils in his study. On the other hand, Kelly and Fetherston (2008) reported that the findings of the effect of cooperative teaching method withinhigher education are quite different from the findings at the primary and secondary levels ofeducation, because cooperative teaching has been found to have positive effect on the achievement of students in higher institutions. This clearly indicated that cooperative teaching method is an effective learning method at higher education level especially at university level. The null hypothesis tested for this revealed that cooperative teaching had statistically significant positive effect on the academic performance of students in corporate accounting ($F(1,66) = 15.23$; $p=0.001$). The implication of this finding is that cooperative teaching method is more effective than problem-based and traditional lecture methods in improving the performance of students in corporate accounting. This finding is also similar to the finding of Israel, Shachar and Fischer (2012) who conducted a study on the effect of cooperative teaching on the students' achievement in social science and reported a statistically significant main effect of cooperative teaching compared to the control groups on student achievement. A possible explanation to these findings could be that in cooperative teaching students benefit from five elements of cooperative teaching: positive interdependence, individual accountability,promotive interaction, group processing, and team or social skills. Similarly, in the views of Springer, Stanne, and Donovan

(2009), Bowen (2010), and Scott, Tolson, Schroeder, Lee, Huang, Hu, and Bentz, (2011) cooperative teaching has a positive effect on student achievement in education.

The study found that Problem-based method has effectson performance of students in corporate accounting. This implied that problem-based instructional method is better in improving students' academic performance than the traditional lecture method. This finding is similar to the finding of Albanase and Mitchell (2009) who reported that problem-based undergraduates performed as well and sometimes better in examinations according to faculties' evaluations. This means that problem-based is also an effective method of teaching in universities. This finding supported other reports on the effectiveness of problem-based method. Some of these studies investigated the effectiveness of implementation of problem-based teaching in engineering education (Dahlgren, 2011; Fink, 2012) and in law education (Driessen & van der Vleuten, 2012). The null hypothesis tested for this revealed that problem-based method of instruction had statistically significant positive effect on the academic performance of students in corporate accounting ($F(1,61) = 11.17$; $p=0.003$). This finding supports the earlier finding of Vernon and Blake (2009) conducted a meta-analysis study for 22 studies to compare problem-based teaching with traditional methods in medical education and they pointed out that the superiority of the problem-based teaching approach over the traditional methods with respect to students' clinical performance, attitudes and opinions about their programme.

This finding might be due to the fact that problem-based instructional method has the potential of increasing intellectual potency by enhancing the learner's ability to organize and classify information. This finding is in line with the finding of Cerezo (2004) who reported that problem-based method leads increase in students' motivation, self-regulated learning and self-efficacy of problem-based teaching. Indeed, problem-based teaching engages students in learning

and students take their responsibilities, it increases students' motivation. Problem-based method has the power to improve the academic performance of the students. This finding also corroborates the finding of De Grave, Schmidt & Boshuizen (2007) who found that problem-based teaching discussions encourages elaboration based on prior knowledge, thereby causing integration of new information into existing knowledge as well as accessibility and memorization of such knowledge. Also,Rivarola and Garcia, (2007)pointed out that cognitive task analysis is effective in eliciting, analyzing and representing expert knowledge in a more accurate and complete manner than traditional task analysis which is capable of influencing learner's success.

The study found that there was no significant difference between the academic performance of male and female students taught corporate accounting using cooperative teaching method. This implied that gender has no effect on the performance of students taught corporate accounting with cooperative teaching method. This implied that cooperative teaching method is effective regardless of gender. The finding revealed that male students taught corporate accounting using cooperative teaching method had higher mean than their female counterparts. This indicated that there was an effect attributed to gender. However, independent t-test was to test the null hypothesis four and the result ($t(34) = 1.33$; $P = 0.132$) revealed that there was no significant difference between the academic performance of male and female students taught corporate accounting using cooperative teaching method. This implies that the observed difference in the mean performance scores of male and female students was not statistically significant.

This finding may be so because any good teaching approach adopted in the teaching of accounting does not discriminates between sexes. Therefore, this finding might be due to the fact that both male and female students were equally motivated by the cooperative teaching

instruction which may have led to increased performance in both sexes.Furthermore, this finding seems to confirm Cavanagh's (2011) position that providing the students with concise and explicit cooperative class to work together enhances their performance and thisis an important aspect of cooperative teaching method. Therefore, the use of cooperative teaching method has help in motivating and developing students' interest in studying corporate accounting. In line with this finding, Kelly and Fetherston (2008) maintained that both male and female students performed significantly better under cooperative teaching method and that there was no significant difference observed. In contrast to this finding, Biggs (2012), in another study performed in Turkey, reported a statistically significant difference betweenmale and female students' performance in chemistry for cooperative groups compared to control groups.

The study found that there was no significant difference between the academic performance of male and female students taught corporate accounting using problem-based method. This implied that gender has no effect on the performance of students taught corporate accounting with problem-based method (t_{29} = 0.17, P=0.863).This result indicated that the effectiveness of problem-based instructional method does not depend on the level of gender. Hence, there were no differential effect of treatments over level of gender (male and female)which implies that problem-based instructional guide is more effective than traditional lecture instructional method in improving students'performance in corporate accounting regardless of gender. His finding is in line with De Grave,Schmidt & Boshuizen (2007) who reported that problem-based teaching discussions encourages elaboration of both male and female students based on prior knowledge, thereby causing integration of new information into existing knowledge as well as accessibility and memorization of such knowledge. This finding also coincides with Vernon and Blake (2009) conducted a meta-analysis study for 22 studies to

compare problem-based teaching with traditional methods in medical education and found that both male and female students performed significantly well but there was no significant difference between male and female students. A possible explanation to this could be because problem-based method is one of the student-centered methodologies that stimulate the critical thinking ability of the students. It could also be because the use of real life problem in the problem-based teachingmethod induces students' interest andthinking which leads to a greater student involvement in learning. This finding also corroborates the view of Akinoglu and Tandogan(2006) who opined that problem-based method general lead to higher students' achievement and retention of learning since they are actively involved in the learning process.

The study also found that there was significant difference in the academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods. Cooperative teaching method students performed significantly better than problem-based and traditional lecture students and problem-based students performed significantly better than the traditional lecture students. The result in Table 4 and 9 revealed that cooperative teaching method is the best, followed by the problem-based teaching and the traditional lecture method in that order. This finding is related to some of the earlier findings and assertions by researchers such as Omosehin (2003) and Adeyemi (2008) who concluded that cooperative teaching method is the most useful. Null hypothesis seven was tested in Table 9 using one-way Analysis of Variance (ANOVA), the result ($F(2,96) = 57.75$ $P=0.00$) showed that there was significant difference in the performance of students between the three groups. A post hoc test was carried out to find where the difference lies, the result revealed that experimental group one students performed statistically significantly than the students in experimental group

two and the control group. Likewise, experimental group two students performed statistically significantly than the students in the control group.

As regards the performance of male and female students exposed to different treatment condition, the male students had higher performance score than female students in cooperative and problem-based teaching groups while the female students had an edge over the male students in the traditional lecture group. Nevertheless, a close look at the figure would reveal that both male and female students exhibited their highest performance under cooperative leaning ($\bar{X}_{male}$= 77.00; $\bar{X}_{female}$= 70.80) as against their performance under problem-based ($\bar{X}_{male}$= 66.53; $\bar{X}_{female}$= 65.75) and the traditional lecture group ($\bar{X}_{male}$= 53.53; $\bar{X}_{female}$= 55.00). Therefore, it might be said from the findings of the study that even though the academic performance of male students is higher than that of female students in both the treatment groups, the performance of both sexes improved significantly. This might be possible because cooperative and problem-based instructionsare particularly suitable for teaching accounting. Therefore, utilizing cooperative and problem-based instruction may be favourable in corporate accounting as it promotes active learning which leads to improved academic achievement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is presented under the following sub-headings:

5.1 Summary

5.2 Contribution to Knowledge

5.3 Conclusion

5.4 Recommendations

5.5 Suggestion for further studies

5.1 Summary

The study was carried out to determine the effects of cooperative and problem-based methods on performance of business education students in corporate accounting in universities in South-westzone, Nigeria. In order to achieve the objective of the study, five specific objectives were raised which included; to determine the effect of cooperative and problem-based teaching methods on performance of business education students in Corporate Accounting in universities in South-westzone, Nigeria. In line with these objectives, research questions were formulated which included; What is the effect of cooperative teaching and problem-based methods on the performance of business education students in Corporate Accounting in universities in South-westzone, Nigeria?

Five hypotheses were posited among which included; Cooperative teaching method has no significant effect on the academic performance of business education students in Corporate Accounting in universities in South-westzone, Nigeria.Quasi experimental designwas adopted for the study. The population of the study was 119 three hundred level students from the universities offering business education in South-west zone. A sample of 99 students from three

universities used for the experiment was used for the study. The data collected to answer the research question were analyzed using mean and standard deviation. The null hypotheses were tested regression, t-test and one-way Analysis of Variance (ANOVA) at 0.05 level of significance. The findings include among others:

1. The result of data analyzed to answer research question one in Table 4 revealed that cooperative teaching had effect on performance of business education students in corporate accounting. Cooperative teaching mean score was 71.92 and lecture teaching method mean score was 42.28, this gave a mean difference of 29.64. Hypothesis one tested in Table 9 revealed that cooperative teaching method had significantpositive effect on business education university students' performance in corporate accounting (p=0.001).
2. The result of data analyzed to answer research question two in Table 5 revealed that problem-based teaching had effect on performance of business education students in corporate accounting. Problem-based teaching mean score was 66.23 and lecture teaching method mean score was 42.28, this gave a mean difference of 23.95. Hypothesis two tested in Table 10 revealed that problem-based teaching method had significant effect on business education university students' performance in corporate accounting (p=0.003).
3. The result of data analyzed to answer research question three in Table 6 revealed that male students taught corporate accounting usingcooperative teaching method had higher mean score than female students. The mean score of male students was 77.00 while the mean score of female students was 70.00 which gave a mean difference of 6.20. Hypothesis three tested in Table 11 revealed that there was no significant difference

between the academic performance of male and female students taught corporate accounting using cooperative teaching method (p=0.132).

5.2 Contribution to Knowledge

The study established that:

1. Cooperative teaching method had significantpositive effect on business education university students' performance in corporate accounting (p=0.001).
2. Problem-based teaching method had significant positive effect on business education university students' performance in corporate accounting (p=0.003).
3. There was no significant difference between the academic performance of male and female students taught corporate accounting using cooperative teaching method (p=0.132).
4. There was no significant difference between the academic performance of male and female students taught corporate accounting using problem-based method (p=0.863).
5. There was significant difference in the academic performance of business education students taught Corporate Accounting using cooperative, problem-based and lecture methods (p=0.000).

5.3 Conclusion

Based on the findings of the study, it was concluded that cooperative teaching and problem-based teaching methods had effects on business education students' performance in corporate accounting. This implied that the traditional lecture method which is predominantly in use by business education lecturers in teaching corporate accounting is not as effective as cooperative teaching method and problem-based teaching method.

5.4 Recommendations

Based on the findings of the study, the following recommendations are made:

1. Cooperative teaching method should be used by lecturers to teach corporate accounting to university business education students.
2. Problem-based teaching method should be used by lecturers to teach corporate accounting to university business education students.
3. Wherever possible, male and female university business education students should be taught corporate accounting by lecturers using cooperative teaching method because the method was beneficial to both of them.
4. In absence of cooperative teaching method, lecturers should use problem-based teaching method to teach male and female university business education students corporate accounting.

5.5 Suggestions for further study

From the findings of the study, the following are suggested for further research:

1. A similar study to determine the effect of cooperative teaching and problem-based methods in other business education areas such as office technology and marketing should be carried out.
2. A replication of the study should be carried out to cover a wider geographical area and other variables that are not covered in this study.
3. Effect of cooperative teaching and problem-based methods on the performance of students in accounting in colleges of education and polytechnics.

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APPENDIX A

LETTER OF INTRODUCTION

DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA NIGERIA

FACULTY OF EDUCATION

lephone: ***069-51755, 50692***
ce Chancellor: **Professor. Abdullahi Mustapha** B.Sc. (Hons) Pharm(ABU), Ph.D (London) FPSN
ad of Department: **Professor A.A Udoh** B.Ed. (Hons) Nsukka M.Ed. & Ph.D Bus Edu. (ABU)

16th December, 2015

*Your Ref:*_____

Our Ref: Ph.D/Educ/29924 /2012-2013 *Date:*_____

LETTER OF IDENTIFICATION
JOSHUA SULE MAMMAN – PH.D/EDUC/29924/2012-2013

This is to certify that the above mentioned name is a Postgraduate student (Ph.D Business Education) in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria carrying out a research topic: ***Effects of Cooperative and Problem-Based Methods on Performance of Business Education Students in Corporate Accounting in Universities in South-West Zone, Nigeria.***

Please, kindly give him every assistance he may require.

DEPT. OF VOC. & TECH. EDUC. HEAD OF DEPT. ZARIA

Professor A.A. Udoh
HEAD OF DEPARTMENT

APPENDIX B

SUMMARY OF STUDENTS' RESULT IN CORPORATE ACCOUNTING 2011/2012, 2012/2013 AND 2013/14

University	**2011/2012 Academic session**			**2012/2013 Academic session**			**2013/2014 Academic session**		
	No. of students	Pass (%)	Fail (%)	No. of students	Pass (%)	Fail (%)	No. of students	Pass (%)	Fail (%)
University of Lagos, Lagos	36	11 (30.6)	25 (69.4)	31	13 (41.9)	18 (58.1)	37	12 (32.4)	25 (67.6)
Ekiti State University, Ado Ekiti	32	14 (43.8)	18 (56.2)	28	12 (42.9)	16 (57.1)	29	10 (34.5)	19 (65.5)
Tai Solarin University of Education, Ijebu-Ode	21	8 (38.1)	13 (61.9)	33	12 (36.4)	21 (63.6)	41	18 (39.0)	23 (61.0)
Total	**89**	**33 (37.1)**	**56 (62.9)**	**92**	**37 (40.2)**	**55 (59.8)**	**107**	**38 (35.5)**	**69 (64.5)**

Source: Head of department's office of each University, 2014/2015 academic Session

APPENDIX C

CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)

Section A: PRE-TEST

INSTRUCTION: You are required to answer ALL questions. Only one answer is correct in the objective test questions. Circle the correct answer on the question paper with pencil.

Time Allowed: 1hr

Gender: Male [ ] Female [ ]

1. The balance sheet is intended to show:

A. The nature of the business.
B. The ownership of the business.
C. The financial position of the business.
D. The size of the business.

2. Working capital in partnership business is the same as:
A. Net current assets.
B. Fixed assets plus current assets.
C. Current assets plus current liabilities.
D. Owner's equity plus fixed and current assets.

3. The following information is available for Ginco partners for the year ending 31/12/2005:
   Opening stock N10,000.
   Purchases N500,000.
   Closing stock N20,000.
   The cost of goods sold figure in the trading account is:
A. N500,000.
B. N490,000.
C. N510,000.
D. N530,000.

4. What is the figure for cost of goods available for sale
A. N510,000
B. N490,000
C. N530,000
D. N500,000

5. Which of the following item is not an item of trading account?
A. Carriage inwards.
B. Return outwards.

C. Carriage outwards.
D. Returns inwards.

6. Which of the following statements is correct?
A. Gross profit = Sales — Cost of sales + Other revenue
B. Gross profit = Sales + Other revenue — Cost of sales
C. Gross profit + Other revenue = Sales — (Opening stock + Purchases - Closing stock)
D. Gross profit = Sales — (Opening stock + Purchases — Closing stock).

Use the following information to answer questions 7 - 10

	N
Sales	500
Purchases	350
Carriage inwards	50
Carriage outwards	150
Returns inwards	75
Returns outwards	25
Opening stock	100
Closing stock	150

7. What is the value of net profit/loss?
A. N(150).
B. Nil.
C. N100.
D. N(50)

8. What is the value of net sales?
A. N230
B. N100
C. N425
D. N150

9. What is the figure for net purchases?
A. N230
B. N425
C. N325
D. N150

10. What is the value of gross profit/loss?
A. N100
B. N230
C. N325
D. N150

11. Calculate gross profit on the basis of the following information:

	N
Sales	500
Cost of sales	350
Carriage outwards	100
Closing stock	50

A. N100
B. N100
C. Nil
D. N150
E. N50

12. Which of the following statements is incorrect?
A. The higher the closing stock the higher will be profits.
B. The lower the opening stock the lower will be profits.
C. There will be no effect on profit if opening and closing stock are the same.
D. The lower closing stock the lower will be profits.

13. The initials N.B.V. stand for:
A. Net book value i.e. Fixed asset cost + annual depreciation.
B. Net book value i.e. Fixed asset cost — aggregate depreciation.
C. Net book value i.e. Fixed asset cost + aggregate depreciation.
D. Net book value i.e. Fixed asset cost - depreciation charge.

14. How many sections has final accounts of a partnership business
A. 4
B. 3
C. 5
D. 2

Use the following information to answer questions 14 to 20

	N	N
Stock on 31st March 2010	5,000	
Sales		21,000
Purchases	2,000	
Carriage inwards	100	
Discount		200
Furniture and fittings	23,000	
Salaries	2,543	
Rent	4,950	
Sundry expenses	7,050	
Share capital		10,000
Debtors and creditors	7,500	2,700
Plant and machinery	3,000	
Cash and bank	200	
Reserves		20,500
General expenses	1,830	

Closing stock N2,000

15. What is the value of cost of sales?
A. N2,500
B. N5,100
C. N4,100
D. N5,000
16. What is the gross profit value?
A. N15,900
B. N16,000
C. N16,100
D. N17,000
17. What is the value of the total expenses?
A. N16,100
B. N17,000
C. N21,000
D. N16,373
18. The net profit/loss is
A. N(273)
B. N273
C. N380
D. N410
19. Calculate the value of total fixed assets
A. N27,000
B. N26,000
C. N30,000
D. N41,000

20. What is the value of total liabilities?
A. N20,700
B. N2,700
C. 27,000
D. 41,000

CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)

PRE-TEST ESSAY QUESTION

The following is the trial balance of A & B partners at 31 March 2008.

	N	N
Capitals: A		38,000
B		40,000
Plant and machinery	43,000	
Motor vans, at cost (used for distribution)	34,000	
Administration expenses	3,100	
Distribution expenses	2,800	
Stock, 31 March 2007	15,604	
Purchases and sales	28,000	91,000
Carriage inwards	1,600	
General expenses	12,000	
Rents receivable		1,200
Returns	450	300
Carriage outwards	1,112	
Debtors and creditors	30,394	22,210
Commission received		290
Furniture	20,940	
	193,000	**193,000**

The closing stock was valued at N5,700

You are required to prepare the trading profit and loss account for the year ended 31st march, 2008 and a balance sheet as at that date. Note: use the conventional method

CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)

SECTION B: POST-TEST

INSTRUCTION: You are required to answer ALL questions. Only one answer is correct in the objective test questions. Circle the correct answer on the question paper.

Time Allowed: 1hr

Gender: Male [ ] Female [ ]

1. A company's share that is stated in the Memorandum of association is called:

   A. Issued capital

   B. Subscribed capital

   C. Called-up capital

   D. Authorized capital

2. The final accounts of a companyconsist of:

   A. Balance Sheet and profit and loss account

   B. Reserves and profit and loss account

   C. Balance sheet and general reserves

   D. Balance sheet and income statement

3. The divisible profit available to shareholders of a company is called:

   A. Reserve

   B. Dividend

   C. Provisions

   D. Income

4. One of the following is true of provisions in final accounts of companies:

   A. It is a charge against profit. Hence it is debited to Profit and Loss Account

B. It is an appropriation of profit. Hence it is debited to Profit and Loss Appropriation Account

C. It needs not be created when profits are inadequate.

D. It is shown on the liability side of balance sheet under the head 'Reserves and Surplus'.

5. …… refers to the dividend paid by the company before the preparation of final accounts

A. Interim dividend

B. Proposed dividend

C. Final dividend

D. Paid-up dividend

6. Total capital of the company which is divided into units of small denominations is called

A. Capital

B. Dividend

C. Debenture

D. Shares

Use the following trial balance of Standard Ltd as at 31st March 2011 to answer question 21 to 30

	N	N
Stock on 31st March 2010	75,000	
Sales		350,000
Purchases	245,000	
Carriage inwards	50,000	
Discount		5,000
Furniture and fittings	17,000	
Salaries	7,500	
Rent	4,950	
Sundry expenses	7,050	
Interim dividends	9,000	
Profit and loss appropriation account on 31st March 2010		15,030
Share capital		100,000
Debtors and creditors	37,500	17,500

Plant and machinery	29,000	
Cash and bank	16,200	
Reserves		15,500
General expenses	4,830	
	503,030	**503,030**

You are to take the following adjustments into consideration:

a. Stock on 31st March 2011 was valued at N82000

b. Depreciation on fixed assets @ 10%

7. What is the value of the gross profit?

   A. N19,200

   B. N22,000

   C. N62,000

   D. N32,000

8. How much is the depreciation on furniture and fittings?

   A. N3,100

   B. N1,700

   C. N1,712

   D. N7,209

9. How much is the value of total expenses?

   A. N19,980

   B. N28,845

   C. N28,930

   D. N21,645

10. What is the value of retained profit for the year?

    A. N44,100

    B. N40,208

C. N42,700

D. N46,209

11. How much is the total of reserves in the balance sheet?

A. N44,300

B. N59,600

C. N42,440

D. N59,300

12. What is total of current asset?

A. N143,987

B. N131,000

C. N135,700

D. N153,704

13. How much is the net profit for the year?

A. N128,032

B. N22,213

C. N38,070

D. N24,602

14. What is the net book value of plant and machinery?

A. N29000

B. N2,900

C. N26,100

D. N29,100

15. What is the net book value of furniture and fittings?

A. N48,300

B. N34,100

C. N15,300

D. N24,438

16. What is the total equity?

A. N120,000

B. N200,000

C. N100,000

D. N100,100

17. The account showing the disposal of divisible profits is called:

A. Profit and Loss Appropriation Account

B. Trading Account

C. Profit and loss Account

D. Appropriation loss Account

18. A company where the liability of each member is limited to the extent of face value of shares held by him/her is called

A. Unlimited liability company

B. Limited liability company

C. Guarantee limited company

D. Unlimited company

19. Preference shareholders

A. Do not have voting rights

B. Have voting rights

C. Have flexible dividend rate

D. None of the above

20. All the following are revenue reserves except:

A. Retained profits

B. General reserves

C. Share premium

D. Debenture premium

CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)

POST-TEST ESSAY QUESTION

The following trial balance was extracted from the books of Collins Ltd at 31 December 2010

	N	N
Share capital authorized and issued:		
80,000 ordinary shares of N1 each		80,000
Freehold premises	59,000	
Motor vansat cost	15,000	
Stock in trade 31 December 2009	13,930	
Balance at bank	6,615	
Trade debtors and creditors	12,395	11,380
Directors' remuneration	4,000	
Wages and salaries	13,127	
Motor and delivery expenses	3,258	
Interim Dividend	2,400	
Reserves		6,931
Rates	700	
Purchases	108,440	
Sales		143,970
General expenses	5,846	
Profit and loss account: balance at 31 December 2009		2,430
	244,711	244,711

You are given the following information:

i. Stock in trade, 31 December 2010, N14,600.
ii. Depreciate motor van at 10% per annum

Required:
With particular emphasis on presentation, prepare a trading and profit and loss account for the year 2010, and a balance sheet at 31 December 2010, **(60 marks)**

APPENDIX D
MARKING SCHEME
CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)
SECTION A PRE-TEST

1. C	11. D
2. A	12. A
3. B	13. B
4. A	14. B
5. C	15. A
6. D	16. D
7. C	17. A
8. C	18. B
9. C	19. B
10. A	20. B

2 marks for each **Total 40 marks**

A & B Trading profit and loss account for the period ended 31st March 2008

	N	N		N	N
Opening stock		15,604	Sales		91,000
Purchases	28,00		Less Ret. Inwards		450
Carriage inwards	1600				90,550
	29,600				
Less Ret. Outwards	300	29,300			
Cost of goods available		44904			
Less closing stock		5700			
		39,204			
Gross profit		51,346			
		90,550			90,550
Adm. Exp		3,100	Gross profit b/d		51,346
Dist. Exp.		2,800	Rent received		1,200
General Exp.		12,000	Commission received		290
Carriage outwards		1,112			
Net profit		33,822			
		52,836			52,836

A & B Balance Sheet as at 31st March 2008

	N	N		N	N
Capitals:			Fixed Assets		
A	54,913.5		Plant and machinery		43,000
B	56913.5	111,827	Motor van		34,000
			Furniture		29,940
Current liabilities					106,940
Creditors		22,210	Current Assets		
			Debtors	30,394	
			Stock	5,700	36,094
		134,037			134,037

Essay mark = $\frac{25}{25}x\frac{60}{1}$ = 60%

APPENDIX E
MARKING SCHEME
CORPORATE ACCOUNTING PERFORMANCE TEST (CAPT)
SECTION B: POST-TEST

Objective test

1. D
2. A
3. B
4. A
5. A
6. D
7. C
8. B
9. C
10. A
11. B
12. C
13. C
14. C
15. C
16. C
17. A
18. B
19. A
20. C

2 marks for each
Total 40 marks

ESSAY MARKING SCHEME

Solution:

Trading and profit and loss and appropriation accountfor the year ended 31 December 2010

	N	N
Sales		143,970
Less Cost of Sales		
Opening stock	13,930	
Purchases	108,440	
	122,390	
Less closing stock	14,600	107,770
Gross profit		36,200
Less Expenses		
Directors' remuneration	4,000	
Wages and salaries	13,127	
Motor and delivery expenses	3,258	
Rates	700	
General expenses	5,846	
Depreciation on motor van	1500	28,431
Net profit		7,769
Add retained profit b/d		2,430
		10,199
Less appropriations		
Interim dividend paid		(2,400)
Retained profit for the year		7,799

Balance sheet as at 31st December, 2010

Fixed Assets	Cost	Dep	NBV
	N	N	N
Freehold premises	59,000	--	59,000
Motor van	15,000	1,500	13,500
			72,500
Current Assets			
Stock		14,600	
Debtors		12,395	
Bank		6,615	
		33,610	
Less current liabilities			
Creditors		11380	
Working capital			22,230
			94,730
Financed by:			
Issued cap:			
80,000 ordinary shares of N1 each			80,000
Reserves			
General reserve			6,931
Retained profit			7,799
			94,730

Total Marks = $\frac{26}{26}$ x$\frac{60}{1}$ = 60 marks

APPENDIX F

COOPERATIVE TEACHING METHODS LESSON PLAN FOR WEEK 1

WEEK 1

TOPIC: Trading account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 36 Students

DURATION: 120 minutes

GENERAL OBJECTIVE: To guide the students in learning the final accounts of companies.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. prepare trading account of a company
2. List the items of trading account of a company.

ENTRY BEHAVIOUR: Students have learnt basics of company accounting.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher is to give a brief explanation of formation of companies and the necessary books to be prepared and present to each group a package on trading account of companies. The teacher also supervises the students the groups to see that they work together cooperatively and that each student participates in the group's progress. Each group will be presented with the package containing the following items to learn:

Format of a trading account Format of trading account of a company

	N	N	N
Sales			X
Less Returns inwards			(X)
			X
Less Cost of Sales			
Opening Stock		X	
Purchases	X		
Add carriage inwards	X		
	X		
Less purchase returns	(X)	X	
		X	
Less Closing stock		(X)	(X)
Gross Profit			X

Illustration

From the trial balance of A&B Ltd, pprepare the trading account for the year ended 31st December, 2011

	N	N
Purchases and sales	12,000	78,234
Returns	450	280
Stock at 1st January, 2010	21,210	
General expenses	2,100	
Carriage inwards	1,200	
Carriage outwards	600	
Salaries	40,954	
	78,514	78,514

The closing stock as at 31st December, 2011 was N1,100

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt.

ASSIGNMENT: Students to list and explain items of profit and loss account of a company.

APPENDIX G

COOPERATIVE TEACHING METHODS LESSON PLAN FOR WEEK 2

WEEK 2

TOPIC: Profit and loss account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 36 Students

DURATION: 120 minutes

GENERAL OBJECTIVE: To guide the students in preparation of the profit and loss account of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare profit and loss account of a company
2. List and explain the items of profit and loss account of a company

ENTRY BEHAVIOUR: Students have learnt the trading account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher is to present each group with a package on the profit and loss account of a company. The teacher also supervises the groups to see that the students work together cooperatively and that each student participates in the group's progress. Each group will be presented with the following:

Format of a company's profit and loss and account

N N

Gross Profit		x
Add incomes		x
Dividend received		x
Interest received		x
Profit from sale of fixed assets		x
		x
Less Expenses		
Other expenses	x	
General expenses	x	
Debenture interest	x	
Audit fees	x	(x)
Profit before tax		x
Taxation		(x)
Profit after tax		x

Illustration

From the trial balance of G&G Ltd below, you are required to prepare the profit and loss for the year ended 31st march, 2008

	N	N
Gross profit for the year		97,750
Leasehold properties, at cost	75,000	
Administration expenses	7,650	
Distribution expenses	10,000	
Directors' remuneration (administrative)	25,000	
Rents receivable		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		15,000
Debenture interest	1,050	
Bank interest	162	
Bank overdraft		730
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 March 2007		16,352
	157,872	**157,872**

Closing stock as at 31st December, 2011 was valued at N22,100

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to list and explain types of sales.

APPENDIX H

COOPERATIVE TEACHING METHODS LESSON PLAN FOR WEEK 3

WEEK3

TOPIC: Profit and loss appropriation and treatment of depreciation

LEVEL: 300 Level

NO. OF STUDENTS: 36 Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in learning the preparation of profit and loss appropriation.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare company appropriation account
2. Treat depreciation in the profit and loss account

ENTRY BEHAVIOUR: Students have learnt the profit and loss account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher is to present each group with a package on profit and loss appropriation account. The teacher also supervises the groups to see that the students work together cooperatively and that each student participates in the group's progress.

Each group will be presented with the following package containing Illustration on appropriation account:

From the trial balance below, prepare the profit and loss appropriation account for the year ended 31st December, 2009

	N	N
Balance at bank	6,615	
Provision for doubtful debts 31 December 2008		275
Trade debtors and creditors	12,395	11,380
Directors' remuneration	4,000	
Profit after tax		13,127
Transfer to reserve	3,258	
Rates	700	
Purchases	108,440	
Sales		114,686
Interim dividend paid	644	
General expenses	5,846	
Profit and loss account: balance at 31 December 2008		2,430
	141,898	141,898

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare the balance sheet of a company.

APPENDIX I

COOPERATIVE TEACHING METHODS LESSON PLAN FOR WEEK 4

WEEK4

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 36Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher is to present each group with a copy of package on balance sheet of a company. The teacher also supervises the groups to see that the students work together cooperatively and that each student participates in the group's progress. Each group will be presented with the package containing the format of a company's balance sheet and the following illustration:

From the following trail balance, prepare the balance sheet of the company as at 31st December, 2011

	N	N
Issued share capital (ordinary shares of N1 each)		42,000
Leasehold properties, at cost	75,000	
Motor vans, at cost	2,500	
Administration expenses	7,650	
Distribution expenses	10,000	
Share premium		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		46,750
Debenture interest	1,050	
Bank interest	162	
Bank overdraft		730
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 December, 2011		17,852
	135,372	135,372

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare trading, profit and loss account and balance sheet of a company.

APPENDIX J

COOPERATIVE TEACHING METHODS LESSON PLAN FOR WEEK 5

WEEK5

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 36Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher is to present each group with a copy of package on balance sheet of a company. The teacher also supervises the groups to see that the students work together cooperatively and that each student participates in the group's progress. Each group will be presented with the package containing the format of a company's balance sheet and the following illustration:

From the following trail balance, prepare the balance sheet of the company as at 31st December, 2011

	N	N
Issued share capital (ordinary shares of N1 each)		42,000
Leasehold properties, at cost	75,000	
Motor vans, at cost	2,500	
Administration expenses	7,650	
Distribution expenses	10,000	
Share premium		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		46,750
Debenture interest	1,050	
Bank interest	162	
Bank overdraft		730
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 December, 2011		17,852
	135,372	135,372

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare trading, profit and loss account and balance sheet of a company.

APPENDIX K

PROBLEM-BASED TEACHING METHOD LESSON PLAN FOR WEEK 1

WEEK 1

TOPIC: Trading account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 31 Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in learning the final accounts of companies.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. prepare trading account of a company
2. List the items of trading account of a company.

ENTRY BEHAVIOUR: Students have learnt basics of company accounting.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the case before the students in an ill-structured way. The teacher discusses the main problem with the students which is understanding the basics of company account. The teacher identifies facts that may be used in resolving the problem. The case will be presented as follows without format:

Illustration

From the trial balance of A&B Ltd, prepare the trading account for the year ended 31st December, 2011

	N	N
Purchases and sales	12,000	78,234
Returns		280
Stock at 1st January, 2010	21,210	
General expenses	2,100	
Carriage inwards	1,200	
Carriage outwards	600	
Salaries	40,954	
	78,514	78,514

The closing stock as at 31st December, 2011 was N1,100

EVALUATION: Each student will be given a short time to present the way he/she arrived at the solution. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to list and explain items of profit and loss account of a company.

APPENDIX L

PROBLEM-BASED TEACHING METHOD LESSON PLAN FOR WEEK 2

WEEK 2

TOPIC: Profit and loss account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 31 Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in preparation of the profit and loss account of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare profit and loss account of a company
2. List and explain the items of profit and loss account of a company

ENTRY BEHAVIOUR: Students have learnt the trading account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the case before the students in an ill-structured way. The teacher discusses the main problem with the students, that is, preparation of journal and ledger accounts for issue of shares at par. The teacher identifies facts that may be used in resolving the problem. The case will be presented as follows without format:

Format of a company's profit and loss and account

	N	N
Gross Profit		X
Add incomes		X
Dividend received		X
Interest received		X
Profit from sale of fixed assets		X
		X
Less Expenses		
Other expenses	x	
General expenses	x	
Debenture interest	x	
Audit fees	x	(x)
Profit before tax		X
Taxation		(x)
Profit after tax		X

Illustration

From the trial balance of G&G Ltd below, you are required to prepare the profit and loss for the year ended 31st march, 2008

	N	N
Gross profit for the year		97,750
Leasehold properties, at cost	75,000	
Administration expenses	7,650	
Distribution expenses	10,000	
Directors' remuneration (administrative)	25,000	
Rents receivable		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		15,000
Debenture interest	1,050	
Bank interest		
Bank overdraft		730
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 March 2007		16,352
	157,872	**157,872**

Closing stock as at 31st December, 2011 was valued at N22,100

EVALUATION: Each group leader will be given a short time to present what the group has done. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to list and explain types of sales.

APPENDIX M

PROBLEM-BASED TEACHING METHOD LESSON PLAN FOR WEEK 3

WEEK3

TOPIC: Profit and loss appropriation and treatment of depreciation

LEVEL: 300 Level

NO. OF STUDENTS: 31 Students

DURATION: 120 minutes

GENERAL OBJECTIVE: To guide the students in learning the preparation of profit and loss appropriation.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare company appropriation account
2. Treat depreciation in the profit and loss account

ENTRY BEHAVIOUR: Students have learnt the profit and loss account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the case before the students in an ill-structured way. The teacher discusses the main problem with the students, that is, preparation of journal and ledger accounts for issue of shares at par. The teacher identifies facts that may be used in resolving the problem. The case will be presented as follows without format:

From the trial balance below, prepare the profit and loss appropriation account for the year ended 31st December, 2009

	N	N
Balance at bank	6,615	
Provision for doubtful debts 31 December 2008		275
Trade debtors and creditors	12,395	11,380
Directors' remuneration	4,000	
Profit after tax		13,127
Transfer to reserve	3,258	
Rates	700	
Purchases	108,440	
Sales		114,686
Interim dividend paid		
General expenses	5,846	
Profit and loss account: balance at 31 December 2008		2,430
	141,898	141,898

EVALUATION: Each student will be given a short time to present the way he/she arrived at the solution. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare the balance sheet of a company.

APPENDIX N

PROBLEM-BASED TEACHING METHOD LESSON PLAN FOR WEEK 4

WEEK4

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 31 Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the case before the students in an ill-structured way. The teacher discusses the main problem with the students, that is, preparation of journal and ledger accounts for issue of shares at par. The teacher identifies facts that may be used in resolving the problem. The case will be presented as follows without format:

From the following trail balance, prepare the balance sheet of the company as at 31st December, 2011

	N	N
Issued share capital (ordinary shares of N1 each)		42,000
Leasehold properties, at cost	75,000	
Motor vans, at cost	2,500	
Administration expenses	7,650	
Distribution expenses	10,000	
Share premium		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		46,750
Debenture interest	1,050	
Bank interest		
Bank overdraft		
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 December, 2011		17,852
	135,372	135,372

EVALUATION: Each student will be given a short time to present the way he/she arrived at the solution. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare trading, profit and loss account and balance sheet of a company.

APPENDIX O

PROBLEM-BASED TEACHING METHOD LESSON PLAN FOR WEEK 5

WEEK5

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 31 Students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the case before the students in an ill-structured way. The teacher discusses the main problem with the students, that is, preparation of journal and ledger accounts for issue of shares at par. The teacher identifies facts that may be used in resolving the problem. The case will be presented as follows without format:

From the following trail balance, prepare the balance sheet of the company as at 31st December, 2011

	N	N
Issued share capital (ordinary shares of N1 each)		42,000
Leasehold properties, at cost	75,000	
Motor vans, at cost	2,500	
Administration expenses	7,650	
Distribution expenses	10,000	
Share premium		3,600
Investments at cost	6,750	
Investment income		340
7% Debentures		46,750
Debenture interest	1,050	
Bank interest		
Bank overdraft		
Debtors and creditors	31,000	24,100
Interim dividend paid	1,260	
Profit and loss account, 31 December, 2011		17,852
	135,372	135,372

EVALUATION: Each student will be given a short time to present the way he/she arrived at the solution. The teacher asks questions on what has been learnt so far to know whether the right thing is learnt and the right procedures are used.

ASSIGNMENT: Students to prepare trading, profit and loss account and balance sheet of a company.

APPENDIX P

LECTURE METHOD LESSON PLAN FOR WEEK 1

WEEK 1

TOPIC: Trading account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 32 students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in learning the final accounts of companies.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. prepare trading account of a company
2. List the items of trading account of a company.

ENTRY BEHAVIOUR: Students have learnt basics of company accounting.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the lesson based on the following steps:

S/N	STEPS OR PROCEDURE	TEACHER ACTIVITY	STUDENT ACTIVITY
1.	Introduction	The teacher introduces the lesson by asking the students questions based on the entry behaviour.	The students respond to the questions asked by the teacher.
2.	Explanation	The teacher explains the final	Listen to the teacher.

		account of a company and items contained in the account.	
3.	Preparation	The teacher explains the procedures for preparing the trading account of companies.	Listen to the teacher
4.	Illustration	The teacher explains the preparation of trading account using illustration.	Listen to the teacher.

EVALUATION: The teacher evaluates the lesson by asking the students the following question based on the objectives of the lesson:

- List the items of trading account of a company?

ASSIGNMENT: Students to work a given problem on trading account.

APPENDIX Q

LECTURE METHOD LESSON PLAN FOR WEEK 2

WEEK 2

TOPIC: Profit and loss account of a company

LEVEL: 300 Level

NO. OF STUDENTS: 32 students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in preparation of the profit and loss account of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare profit and loss account of a company
2. List and explain the items of profit and loss account of a company

ENTRY BEHAVIOUR: Students have learnt the trading account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the lesson based on the following steps:

S/N	STEPS OR PROCEDURE	TEACHER ACTIVITY	STUDENT ACTIVITY
1.	Introduction	The teacher introduces the lesson by asking the students questions based on the entry	The students respond to the questions asked by the teacher.

		behaviour,eg what are the items in preparing trading account.	
2.	Profit and loss account	The teacher explains the reason behind the preparation of profit and loss account by companies.	Listen to the teacher.
3.	Procedures	The teacher explains the procedures in preparing profit and loss account of companies including the explanation of the items.	Listen to the teacher
4.	Preparation	The teacher gives an illustration on profit and loss account. The teacher explains the steps in working out the illustration.	Take the dictation of the question.
5.		Demonstrates the working of the question given to the students and explains the steps involved.	Listen to the teacher
6.	Summary	Asks the students to take the working on the board.	Takes the worked example.

EVALUATION: The teacher evaluates the lesson by asking the students the following question based on the objectives of the lesson:

- List the items of profit and loss account.
- Explain the procedures in preparing profit and loss account of companies.

ASSIGNMENT: Students to work a given question on profit and loss account.

APPENDIX R

LECTURE METHOD LESSON PLAN FOR WEEK 3

WEEK3

TOPIC: Profit and loss appropriation and treatment of depreciation

LEVEL: 300 Level

NO. OF STUDENTS: 32 students

DURATION: 180 minutes

GENERAL OBJECTIVE: To guide the students in learning the preparation of profit and loss appropriation.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare company's appropriation account
2. Treat depreciation in the profit and loss account

ENTRY BEHAVIOUR: Students have learnt the profit and loss account of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the lesson based on the following steps:

S/N	STEPS OR PROCEDURE	TEACHER ACTIVITY	STUDENT ACTIVITY
1.	Introduction	The teacher introduces the lesson by asking the students questions based on the entry behaviour e.g explain the items	The students respond to the questions asked by the teacher.

		of profit and loss account.	
2.	Procedure	The teacher explains the appropriation section of a company's profit and loss account..	Listen to the teacher.
3.	Preparation	Gives an illustration on appropriation.	Take the dictation of the question.
5.		Demonstrates the working of the question given to the students and explains the steps involved.	Watch the teacher
6.	Summary	Asks the students to take the working on the board.	Takes the worked example.

EVALUATION: The teacher evaluates the lesson by asking the students the following question based on the objectives of the lesson:

- List the items in the appropriation section of a company's profit and loss account.

ASSIGNMENT: Students to proffer solution to a given question on profit and loss appropriation account.

APPENDIX S

LECTURE METHOD LESSON PLAN FOR WEEK 4

WEEK4

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 32 students

DURATION: 120 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

1. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the lesson based on the following steps:

S/N	STEPS OR PROCEDURE	TEACHER ACTIVITY	STUDENT ACTIVITY
1.	Introduction	The teacher introduces the lesson by asking the students questions based on the entry	The students respond to the questions asked by the teacher.

		behaviour e.g list the items in the appropriation section of a company's final account.	
2.	Explanations	The teacher explains the meaning of balance sheet and why it is necessary to prepare it.	Listen to the teacher.
3.	Preparation	The teacher gives an illustration on the balance sheet of a company.	Take the dictation of the question.
5.		Demonstrates the working of the question given to the students and explains the steps involved.	Watch the teacher
6.	Summary	Asks the students to take the working on the board.	Takes the worked example.

EVALUATION: The teacher evaluates the lesson by asking the students the following question based on the objectives of the lesson:

1. List the items in the balance sheet of a company
2. Explain the presentation of a company's balance sheet.

ASSIGNMENT: Students to work a given problem on balance sheet of a company.

APPENDIX T

LECTURE METHOD LESSON PLAN FOR WEEK 5

WEEK5

TOPIC: Balance sheet of a company

LEVEL: 300 Level

NO. OF STUDENTS: 32 students

DURATION: 120 minutes

GENERAL OBJECTIVE: To guide the students in the preparation of balance sheet of a company.

SPECIFIC INSTRUCTIONAL OBJECTIVES: At the end of the lesson, the students should be able to:

2. Prepare the balance sheet of a company.

ENTRY BEHAVIOUR: Students have learnt the preparation of profit and loss appropriation of a company.

INSTRUCTIONAL MATERIAL:

INSTRUCTIONAL PROCEDURE: The teacher presents the lesson based on the following steps:

S/N	STEPS OR PROCEDURE	TEACHER ACTIVITY	STUDENT ACTIVITY
1.	Introduction	The teacher introduces the lesson by asking the students questions based on the entry	The students respond to the questions asked by the teacher.

		behaviour e.g list the items in the appropriation section of a company's final account.	
2.	Explanations	The teacher explains the meaning of balance sheet and why it is necessary to prepare it.	Listen to the teacher.
3.	Preparation	The teacher gives an illustration on the balance sheet of a company.	Take the dictation of the question.
5.		Demonstrates the working of the question given to the students and explains the steps involved.	Watch the teacher
6.	Summary	Asks the students to take the working on the board.	Takes the worked example.

EVALUATION: The teacher evaluates the lesson by asking the students the following question based on the objectives of the lesson:

3. List the items in the balance sheet of a company
4. Explain the presentation of a company's balance sheet.

ASSIGNMENT: Students to work a given problem on balance sheet of a company.

APPENDIX U

CORPORATE ACCOUNTING PERFORMANCE SCORE

	PRE-TEST			POST-TEST		
	LECTURE METHOD	**PROBLEM-BASED**	**COOPERATIVE TEACHING**	**LECTURE METHOD**	**PROBLEM-BASED**	**COOPERATIVE TEACHING**
1	34	33	33	42	69	65
2	34	33	34	44	70	61
3	33	34	34	51	80	60
4	34	34	34	57	72	63
5	34	34	34	51	50	75
6	34	34	34	50	60	69
7	34	33	34	37	55	72
8	33	33	34	55	68	59
9	33	33	34	43	64	64
10	33	33	34	46	50	63
11	33	34	34	49	82	63
12	33	34	34	52	40	65
13	35	34	34	55	78	61
14	35	33	33	57	67	64
15	34	33	33	46	48	68
16	34	33	33	34	83	76
17	34	34	33	50	68	70
18	34	35	33	54	86	87
19	33	35	32	45	74	85
20	33	35	32	43	55	86
21	33	35	32	52	70	78
22	33	35	32	37	72	68
23	33	35	34	54	51	76
24	34	35	34	41	63	70
25	35	35	34	54	67	75
26	35	35	34	54	74	60
27	35	33	35	54	66	70
28	35	35	35	46	52	85
29	32	34	35	51	58	77
30	33	33	35	48	82	87
31	33	33	35	54	79	88
32	33		35	44		68
33			35			78
34			35			75
35			34			71
36			33			87