EFFECT OF CO-OPERATIVE LEARNING METHOD ON THE ACHIEVEMENT AND RETENTION OF STUDENTS IN BUSINESS STUDIES IN LAGOS STATE, NIGERIA

ADEDAYO PATRICK ADEYEMI[1*], OLUWABUNMI AMOS OLUWO[2]

[1,2]Lagos State University of Education, Oto/Ijanikin, Lagos State, Nigeria

***Corresponding au**thor: adeyemiap@lasued.edu.ng*

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Abstract

This paper investigated the effect of cooperative learning method on the academic achievement and retention of students in Business Studies in Lagos State. The study seeks to explore whether the implementation of cooperative learning strategies positively influences students' performance and their ability to retain knowledge in the subject of Business Studies. The research employed a quantitative research design, using the pre-test/post-test control group quasi-experimental design. A sample of students from secondary schools in Lagos State is selected and divided into two groups: an experimental group receiving instruction through cooperative learning methods and a control group receiving traditional instruction. Both groups undergo pre-tests to assess their baseline knowledge before the intervention. The experimental group then receives instruction using cooperative learning methods, while the control group continues with traditional instruction. Post-tests are administered to both groups to measure their academic achievement after the intervention. Additionally, follow-up assessments were conducted to evaluate the retention of knowledge among students in both groups over a specified period. Data analysis involves statistical techniques such as t-tests to compare the performance of students in the experimental and control groups. It was concluded that the implementation of cooperative learning methods significantly contributes to enhanced academic achievement and knowledge retention in business studies. It was recommended amongst others that Educational institutions should consider integrating cooperative learning methods into their business studies curriculum.

***Keywords**: Academic Achievement, Academic Retention, Business Studies, Cooperative Learning Method, Lagos State, Secondary School Students.*

Introduction

Business studies can be defined as the study of how businesses work, especially the financial and management aspects of business. Business as a course of study, or as a discipline, is a body of knowledge which touches on many areas including commerce, economics, insurance and banking. Business studies at the UBE level concern itself with the foundation courses of the above-mentioned subjects. These foundation courses form the components of business studies and they include; office practice, commerce, book-keeping, shorthand and keyboarding. Business studies form a means of laying foundation for national, technological, economical advancement and for higher education (Federal Republic of Nigeria, 1981, 2004, 2008). It equips its recipients with personal skills,

consumer skills, and knowledge for clerical and managerial (Malik, Khan, Bhutto & Ghouri, 2011) abilities needed to adapt to changing economic and business realities and these skills made them to be wealth and job creators rather than wealth and job seekers. Atakpa (2004) posits that it is that aspect of education that concern itself with vocational and professional preparation for career in business.

In recent years, studies involving cooperative learning, one kind of student-centered approach have emerged as an internationally important area of social science research among researchers (Slavin, 2011). Many studies have been conducted in different settings of education, using different kinds of cooperative learning techniques. Such techniques are Learning Together (LT), Jigsaw Grouping, Teams-Games-Tournaments (TGT), Group Investigation (GI), Student Teams Achievement Division (STAD), and Team Accelerated Instruction (TAI). A series of research studies has found a relationship between the higher cognitive and affective outcomes, and cooperative learning approaches (Johnson & Johnson, 2005; Tran & Lewis, 2012a; Tran & Lewis, 2012b). In the setting of Vietnamese higher education lecture-based teaching, one kind of traditional approach has been and still the most prevalent instructional approach (Harman & Nguyen, 2018). In comparison with cooperative learning techniques, lecture-based teaching has been reported to be less effective to the demands of high rates of cognitive and affective outcomes (Slavin, 2011). In order to improve students' cognitive outcomes, an alternative to lecture-based teaching could be cooperative learning (Tran & Lewis, 2012a&b). This approach has been reported to improve students' achievement, and their knowledge retention (Johnson & Johnson, 2009).

Cooperative learning is an "instructional methods in which teachers organize students into small groups, which then work together to help one another learn academic content" (Slavin, 2011, p. 344). Cooperative learning consists of five basic elements: positive interdependence, promotive interaction, individual accountability, teaching of interpersonal and social skills, and quality of group processing. Learning situations are not cooperative if students are arranged into groups without positive interdependence (Johnson & Johnson, 2009). Positive interdependence can be described as aoperative learning situation where students are required to work together as a cohesive group to achieve shared learning objectives (Yager, 2000). In the process, students must be responsible for their own learning and for the success of other group members' learning (Slavin, 2011). In other words, students must ensure that other members in their group complete the tasks and achieve the academic outcomes. The lesson will not be cooperative if students do not "swim together" in the group learning activities (Johnson & Johnson, 2008). Hence, positive interdependence needs to be constructed in cooperative learning groups to help students work and learn together. Positive interdependence results in reciprocal interaction among individuals, which promotes each group member's productivity and achievement. Promotive interaction occurs as individuals encourage and facilitate each other's efforts to accomplish the group's goals. In cooperative learning groups, students are required to interact verbally with one another on learning tasks (Johnson & Johnson, 2008). As part of the cooperative learning condition, students are required to interact verbally with one another on learning tasks (Johnson & Johnson, 2009), exchange opinions, explain things, teach others and present their understanding (Johnson, 2009).

Individual responsibility means that students ask for assistance, do their best work, present their ideas, learn as much as possible, take their tasks seriously, help the group operate well, and take care of one another (Johnson, 2009). Positive interdependence is recognized to create "responsibility forces" that increase the individual accountability of group members for accomplishing shared work and facilitating other group members' work (Johnson & Johnson, 2005). If there is no individual accountability, one or two group members may do all the work while others do nothing. If the achievement of the group depends on the individual learning of each group

member, then group members are motivated to ensure that all group members master the material being studied (Slavin, 1996). When group accountability and individual accountability exist in the group, the responsibility forces increase (Johnson & Johnson, 2009). In reality, students cannot work effectively if socially unskilled students are arranged into one group (Johnson & Johnson, 2009). If basic learning skills on cooperative interaction are not taught, group members cannot work together effectively to finish their tasks. Cooperative learning, compared with individualistic or competitive learning, is more complex because it requires students to engage in learning tasks and work together (Johnson & Johnson, 2005). Therefore, social and interpersonal skills, such as listening attentively, questioning cooperatively and negotiating respectfully need be taught, to help students cooperate effectively in the group. In addition, each group member should know how to manage the group, how to make decisions and how to solve conflicts that arise among group members. If these skills are not taught, cooperative learning activities are rarely successful (Slavin, 1996). To coordinate efforts to achieve mutual goals, participants must: (a) get to know and trust each other; (b) communicate accurately and unambiguously; (c) accept and support each other; and (d) resolve conflicts constructively (Johnson & Johnson, 2009). Group processing is defined as reflecting on a group session to help students: (1) describe what member actions were helpful and unhelpful; and (2) make decisions about what actions to continue or change (Johnson & Johnson, 1999). Group processing helps improve the effectiveness of the members in contributing to the shared efforts to achieve the group's goals via reflection on the learning process (Yamarik, 2007). In other words, the purpose of group processing is to clarify and improve the effectiveness of the members in contributing to the joint efforts to achieve the goal of the group.

Statement of the Problem

The Educational system in Nigeria has contributed in no small measures to support the nation's economy through the provision of qualitative manpower and acquisition of knowledge, skills and values. Academic performance, which is measured by the examination results, is one of the major goals of any academic programme, business studies is established with the aim of imparting knowledge and skills required in business and management on the students. However, it has been noted that while very few students perform well in business studies in the Lagos State Basic Education Certificate Examination (BECE), majority of them perform poorly. If this poor performance goes unchecked, the subject may derail from the stated goals as postulated in the National Policy on Education. Much as the situation described here calls for concern, it is not clear the reason for students' poor performance in business studies. The researcher's interaction with students and teachers showed that everybody has a complaint about the method of teaching and learning. The students complained that the teaching method adopted by teachers makes the business studies class dull, boring and difficult. Teachers on their part are of the opinion that students do not show enthusiasm and liveliness in business studies class. It is based on this situation that the authors embarked on this present study to examine the effect of of co-operative learning method on the academic achievement and retention of students in business studies.

Purpose of the Study

The objective of the study is to determine the effect of co-operative learning method on academic achievement and retention of students in business studies. Specifically, the objectives of the study were to determine and compare:

1. the effect of Co-operative learning method on the academic achievement and retention of students in business studies.

2. the difference between academic achievement and retention of students taught business studies using co-operative teaching method and those taught using conventional method.
3. the difference in academic achievement and retention of students taught business studies using co-operative teaching method.

Research Hypotheses

The following null hypotheses were formulated to guide the study.

Research Hypothesis 1: Co-operative teaching method has no significant effect on the academic achievement and retention of students in business studies.

Research Hypothesis 2: There is no significant difference in academic achievement and retention of students taught business studies using co-operative teaching methods and those taught using conventional teaching method.

Theoretical Framework

This study adopted the constructivist view of learning by Kolb, Boyatzis and Mainemelis (2000) who postulated that students build their perception on learning the reason for adopting these theory, because it dealt with students' perception when teaching and learning process, this perception greatly affects their performances and achievement in schools based on their previous experiences and characteristics. Cheek (1992) supported this view when he said learners actively take knowledge, connect it to previously assimilated knowledge and make it theirs by constructing their own interpretation. Learning is the act, process, or experience of gaining knowledge or skill. It refers to all knowledge or skill gained through schooling. Learning refers to those behavioural modifications especially through experience or conditioning. According to Illeris (2004), learning is the process that brings together cognitive, emotional. Therefore, learning theories are framework describing how information absorbed processed and retained during learning.

Cognitive theory influences as well as prior experience all play a part in how understanding and world view is acquired or changed and knowledge, skills retained and explains why the brains is the most incredible network of information processing. Cognitive theory believes that the definition of learning as a change in behavior is to narrow and prefer to study the learner rather than their environment and in particular complexities of human memory, those who advocate, cognitive describe the information processing model to learning and distinguish the features of multistore of learning, its gives some ideas related to cognitive learning theory covered. Constructivism is a theory founded on the idea that students construct knowledge in the process of learning through interaction with the phenomenon as they develop shared meaning of the phenomenon within social context (Geer & Rudge, 2013).

The underlying premise of constructivist learning theory is that learning is an active process in which learners are active sense makers who seek to build coherent and organized knowledge (Mayer, 2013; Atherton, 2011). Learning becomes meaningful only after the new materials are well connected with existing related knowledge or schema. To constructivist, an individual can only learn if his/her conceptual schema provides the framework upon which to fit new knowledge (Erinosho, 2008). Learning conflict occur when there is contradiction between the existing schema and the new ideas, forcing the learner to consider whether to reject the new idea or discard the old. Mangal (2009), referred to schema as the general cognitive ability of the learner. An individual schema can take new information through either accommodation or assimilation.

Learning, therefore, involves an interaction between students' mental schema and the experience they have. On the other hand, the experience may be novel and students may change or adapt their knowledge schemas as a result. For learning to take place, therefore learners must be

active in the learning process, and organizing their own experiences. The propositions suggested a set of instructional principles that can guide the practice of teaching and the design of the learning environments. A common interpretation of constructivist view of learning as an active process is that students must be active during learning. This denotes a paradigm shift from the way one used to teach and interact with students to a more improved form of instruction in which learners are given opportunities to actively seek information, analyse it and construct knowledge by themselves.

To constructivists, passive venues involving books, lectures and online presentations are classified as non-constructivist teaching, whereas active venues such as problem-solving and interactive games are classified as constructivist teaching (Mayer, 2013). Constructivist learning theory provides ground for organizing students' learning around their experiences, giving them more sense of participation in the learning process. Aydin (2011) stated that constructivist learning theory is an important place in the field of social studies education, aiming to educate students who play an active role of engaging in research for deep knowledge and use the information they have learnt rather than the students, who play passive recipient role in information‖.

The core concept of constructivism is in line with the basic conception of discovery and discussion methods of teaching in which students are allowed to actively work together with the teacher in order to accomplish their learning goal. Constructivism views learning as socially situated activity and that understanding could only occur through interaction with others. Participating fully in the learning process is prerequisite if deep and real understanding and use of knowledge are aimed at. The success of learning is largely determined by the level of participation of students, (Akinsanya, 2012; Osokoya, 2006). Constructivist theory is related to this study in that it explained the tenets of discovery and discussion methods of teaching which include learning through interaction among learners and active involvement of students in their learning. Adedayo (2012) were of the view that children do not operate in isolation but learn by interacting with more knowledgeable others, including adults, older peers, teachers or perhaps today even the internet.

Method

Research Design

This study employed a quantitative research design by utilizing pre-test/post-test control group quasi-experimental design. This type of design was suitable in order to establish the cause and effect relationship between the variables in focus.

Population and Sample Procedure

The target population for the study consist of JSS 2 students in Epe Local Government Area of Lagos State. The study sampled 150 students in the sampled area. A combination of stratified, purposive and simple random techniques was used in the selection of sample. Six (6) schools were purposely selected across Epe Local Government Area and simple random method was used on the JSS 2 register to select the students used for the research. Twenty-five students were selected from each school under this procedure. The students were further divided into two groups: an experimental group receiving instruction through cooperative learning methods and a control group receiving traditional instruction.

Research Instrument

The instrument used for this work was the Business Studies Achievement Test developed to measure the Junior Secondary School (JSS 2) students' knowledge of selected contents in the business studies syllabus. The contents were drawn from topics in business studies to explore the skills of the students in the areas of knowledge and application. The instrument was divided into two

parts namely: Section A consisting of demographic information such as age, gender and school. Section B covers a 50-item multiple choice test questions.

Validation and Reliability of Research Instrument

Two experts from Business Education Department would validated the instrument, to establish the face and content validity. In order to ascertain the reliability, the instrument was administered twice on 20 randomly selected students (who did not participate in the final study) over a two-week period using the Kuder Richardson analysis to test for the reliability of the instrument. The reliability coefficient from the procedure was 0.81 indicating that the instrument was highly reliable.

Data Collection Procedure

Both the experimental group and the control groups underwent pre-tests to assess their baseline knowledge of the selected topics in business studies using the Business Studies Achievement Test. The experimental group then receives instruction using cooperative learning methods, while the control group continues with traditional instruction. Post-tests are administered to both groups to measure their academic achievement after the intervention. Additionally, follow-up assessments are conducted to evaluate the retention of knowledge among students in both groups over a specified period.

Data Analysis

The results obtained from the pre-test and post-test were subjected to analysis using t-test statistic to test the hypotheses after comparing the performance of students in the experimental and control groups.

Results

Research Hypothesis 1: Co-operative teaching method has no significant effect on the academic achievement and retention of students in business studies.

Table 1: T-Test Analysis on Cooperative Teaching and Academic Achievement and Retention of Students in Business Studies.

Variables	*N*	*M*	*SD*	*df*	*t-cal*	*t-table*	*Level of Sig.*	*Decision*
Cooperative teaching	150	16.74	1.61	12	4.44	2.18	0.05	Reject
Academic achievement and retention of Business Studies Students		15.09	2.57					

Research Hypothesis 1: There is no significant difference in academic achievement and retention of students taught business studies using cooperative teaching methods and those taught using conventional teaching method.

Table 2: T-Test Analysis on the Difference in Academic Achievement and Retention of Students Taught Business Studies Using Cooperative Teaching Method and those Taught Using Conventional Teaching Method.

Variables	*N*	*M*	*SD*	*df*	*t-cal*	*t-table*	*Level of Sig.*	Decision
Cooperative teaching method	150	13.19	3.46	12	4.72	2.18	0.05	Reject
Conventional teaching method		12.63	2.35					

Since the table t-value value in lesser than the t-test value the null hypothesis (H_O) is rejected. The result revealed there is a significant difference in the academic achievement and retention of students taught business studies using cooperative teaching methods and those taught using conventional teaching method in Lagos State Secondary School.

Discussions

From Table 1 above, the mean of the Experimental group is 16.74 and their standard deviation in 1.61 while the Control group have a mean of 15.09 with a standard deviation of 2.57 at 0.05 level of significance since the calculated t-value in greater than the table t-value, the null hypothesis is therefore rejected. The null hypothesis 1 which stated that cooperative teaching has no significant effect on the academic achievement and retention of Business Studies Students in Lagos State Secondary School was rejected. The results of the t-test revealed a significant positive effect of cooperative teaching on academic achievement and retention. This finding was in line with the findings of Oloyede, Adebowale and Ojo (2012) who investigated the effects of competitive, cooperative and individualistic classroom interaction model on learning outcomes in Mathematics in senior secondary schools in Ikere and Ado-Ekiti LGAs, Ekiti State, Nigeria. The findings showed that the students' learning outcomes in Mathematics were better promoted by the cooperative and competitive strategies but rather minimally by both individualistic and conventional strategies. Also from Table 2 above, the co-operative teaching methods has a mean of 13.19 and Standard deviation of 3.46; while the conventional teaching method has a mean of 12.63 and Standard deviation is 2.35 when the degree of freedom is 12 The null hypothesis (HO2) stating that there is no significant difference in the academic achievement and retention of students taught business studies using cooperative teaching method and those taught using conventional teaching methods was also rejected. The t-test results indicate a significant difference in favor of cooperative teaching methods. The finding was in line with the findings of Rasheed and Robyn (2013) who investigated the impact of cooperative learning in comparison to traditional learning (small groups) on English as a foreign language (EFN) learners' outcome when learning English as a foreign language in Al-Baha City, Saudi Arabia. There was no significant difference between students in the experimental classes and the students in the control groups in their English achievement test at the pre-test. It was also in tandem with the finding of Dorcas (2018) who concluded that cooperative teaching method had more effects on students' performance in financial accounting in senior secondary schools in Kaduna State.

Conclusion

It can be concluded that the implementation of cooperative learning methods significantly contributes to enhanced academic achievement and knowledge retention in business studies. One of the key findings of this study is the positive correlation between the cooperative learning approach and academic achievement. The collaborative nature of this method encourages students to actively engage with the course material, share their insights, and benefit from diverse perspectives within the group. As a result, students not only grasp the subject matter more comprehensively but also develop a deeper understanding through peer interaction. Furthermore, the cooperative learning method proves to be instrumental in enhancing retention rates among students in business studies. The sense of community and shared responsibility within a cooperative learning setting cultivates a supportive learning environment, reducing the feelings of isolation and disconnection often associated with traditional teaching methods. This supportive atmosphere contributes to increased motivation, sustained interest in the subject matter, and ultimately, higher retention of knowledge.

Recommendations

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

1. Integration of cooperative Learning: Educational institutions should endeavour to consider integrating cooperative learning methods into their business studies curriculum. This can be achieved through faculty training, resource development, and the creation of a conducive learning environment that supports collaborative activities.
2. Continuous professional development: Teachers and instructors should endeavour to undergo continuous professional development programs to enhance their understanding and implementation of cooperative learning strategies. This will ensure effective facilitation of group activities and maximize the benefits for student learning.
3. Monitoring and Evaluation: Regular monitoring and evaluation of the cooperative learning approach should be conducted to assess its ongoing effectiveness. This includes gathering feedback from both students and educators to make necessary adjustments and improvements.
4. Research Expansion: Further research should be conducted to explore variations in cooperative learning methods, their applicability to different business studies topics, and their long-term impact on students' academic and professional development.

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