

# Collaborative/competitive learning styles and students' academic performance in cost accounting in federal universities in South-south, Nigeria

Godspower Kingsley Chukwuka<sup>1</sup>, Ekpo Godwin Pius<sup>2</sup>

Federal College of Education (Technical) Omoku, Rivers State, Nigeria<sup>1</sup>

Heritage Polytechnic Eket, Akwa Ibom State, Nigeria<sup>2</sup>

[godspower.kings@gmail.com](mailto:godspower.kings@gmail.com)<sup>1</sup>, [godwinpius.gp@gmail.com](mailto:godwinpius.gp@gmail.com)<sup>2</sup>



## Article History

Received on 10 October 2023

1<sup>st</sup> Revision on 12 October 2023

2<sup>nd</sup> Revision on 16 December 2023

3<sup>rd</sup> Revision on 18 December 2023

4<sup>th</sup> Revision on 30 December 2023

Accepted on 2 January 2024

## Abstract

**Purpose:** This study investigates the correlation between learning styles and students' academic achievement in the field of cost accounting among federal universities located in the south-south region of Nigeria.

**Research methodology:** This study analyzed 556 final-year business education students from four federal universities in south-south Nigeria (source). The sample consisted of 248 students, selected using cluster sampling (source). The primary data were obtained using a questionnaire (source). The statistical method used was the Pearson Product Moment Correlation (PPMC) to evaluate the hypotheses and address.

**Results:** The findings revealed a significant positive association between the two variables. Additionally, the analysis underscores the significant positive relationship between the competitive learning approach and students' academic performance in cost accounting in federal universities in the south-south region of Nigeria.

**Limitations:** The sample size was small, which may have affected the reliability of the findings.

**Contribution:** The study would also be of benefit to professional bodies such as ICAN, ANAN, NIT, and others in that they would be aware that students have different styles of learning their course contents.

**Novelty:** The study advised educators to strategically design learning activities that would promote both collaboration and competition, while also establishing high-performance expectations for students.

**Practical implications:** Instructors are also expected to help students develop these three different styles of learning, since cost accounting, a course studied at the university, involves many calculations and concepts.

**Keywords:** *collaborative learning style, competitive learning style*

**How to Cite:** Chukwuka, G. K., & Pius, E. G. (2023). Collaborative/competitive learning styles and students' academic performance in cost accounting in federal universities in South-south, Nigeria. *Journal of Social, Humanity, and Education*, 4(3), 169-180.

## 1. Introduction

Educators consistently strive to comprehend students' learning processes with diverse features. Educators endeavor to establish instructional approaches and learning settings that effectively foster students' achievement in the curricula they have formulated, bolstering their educational and

professional attainment. Nevertheless, during the process of developing course schedules, faculty deans and department heads encounter constraints pertaining to educational resources, including faculty availability, classroom availability, and availability of course materials. According to Onay and Benligiray (2018), university administrators, scientific accreditation agencies, and politicians allocate resources to be carried out in a manner deemed most suitable. The requisites and expertise sought by the corporate sector from its workforce constitute a pivotal factor that influences the allocation of educational resources. Hence, there is an increased need for decision-makers to dedicate additional time to examining strategies aimed at enhancing student accomplishment. Omodero and Nwangwa (2020) asserted that within the realm of cost accounting, various elements exert influence on students' performance. To enhance the effectiveness of pedagogy, it is imperative to develop a comprehensive understanding of these variables. To comprehend accounting, students are required to acquire proficiency in a range of financial concepts as well as fundamental algebraic procedures. Accounting courses are sometimes regarded as some of the most challenging courses within the realm of business programs. Accounting education faces disparity in student understanding due to varying levels of dedication and diligence. Lichauco, Molina, Tengco, and Vidallo (2023) stated that some of the factors influencing academic achievement include motivation, university entrance exam scores, grades in preparatory courses, and cumulative grade point averages. Measuring these variables objectively presents challenges, whereas indicators such as university entrance exam scores and grades can provide a straightforward assessment of academic preparedness.

Velasco (2019) highlighted that students' performance in cost accounting is influenced by various factors including study habits, learning environment, teaching methods, and personal motivation. Effective study habits are crucial for academic success, and teachers should encourage students to create study schedules, break down complex topics into manageable sections, and regularly review materials. Balancing academic responsibilities with other activities is essential, and students should actively engage with the material through notes, questions, discussions, and clarification. Regular feedback on assignments and assessments can guide students in identifying strengths and areas of improvement (Caratiquit & Caratiquit, 2023). Constructive feedback motivates students to enhance their performance. Students should be aware of the available resources, such as textbooks, online materials, study guides, and academic support services. Group study sessions and peer discussions can help students acquire different perspectives and reinforce their understanding. Maintaining a healthy lifestyle, including proper sleep, nutrition, and physical activity, can positively affect cognitive function and overall well-being. Clear objectives provide purpose and motivation, and fostering a growth mindset can lead to increased resilience and perseverance when faced with challenges.

Research on the impact of collaborative learning on student performance has yielded conflicting results. Some studies suggest that well-structured collaborative learning activities can lead to improved academic achievement, while others highlight the importance of proper implementation and the need to balance collaborative work with individual learning (Omodero, 2019; Onay & Benligiray, 2018). Ultimately, the effectiveness of the collaborative learning approach depends on various factors, including the nature of the subject, composition of the student groups, instructor's facilitation skills, and available resources. A thoughtful and well-planned approach that considers these factors can lead to positive outcomes in terms of student performance and overall learning experience.

Effective communication is crucial in cost accounting to ensure that everyone understands calculations and concepts. Language barriers or different communication styles within a group can hinder the learning process and negatively impact performance (Matthew, Nwobueze, & Onwuzor, 2023). Cost accounting is not just about solving problems; it is also about applying concepts to real-world scenarios. Collaborative learning may not always provide opportunities for students to effectively develop these critical application skills. Different students may have different methods for solving cost-accounting problems. While diversity in style can be beneficial, it might lead to confusion and conflicting solutions within a collaborative group.

Education is commonly regarded as a facilitator of the learning process, enabling individuals to gain specialized skills and enhance their societal contributions. A clear outline of the goals, expectations,

and guidelines for collaborative activities is crucial for better learning. This includes defining roles, setting deadlines, and explaining the importance of an individual's understanding. Hence, educators should design activities that encourage collaborative problem-solving and individual practice. This ensures that students have opportunities to reinforce their own understanding (Storer, 2018). He further emphasized the importance of monitoring group functioning, providing additional guidance or reshuffling members if needed, and incorporating individual components in collaborative projects for assessment. He also encouraged students to explain concepts to each other and provided regular feedback to identify strengths and areas for improvement.

Competitive learning styles generally refer to educational methodologies that involve competition or comparison among students to enhance their learning outcomes (Shaffee, Ahmad, Idris, Ismail, & Ghani, 2019). In the context of cost accounting, these approaches could encourage students to compete with each other to improve their understanding of the subject matter. Competitive learning styles can be a valuable tool for enhancing students' academic performance in cost accounting, provided they are implemented thoughtfully, considering the diverse learning needs of students and maintaining a positive and inclusive learning environment.

### ***1.2 Statement of the Problem***

Cost accounting is a complex subject that presents unique challenges for students, particularly at Nigerian universities. Accounting programs typically take four years to complete, but many students face difficulties due to high failure rates. This issue is not limited to Nigerian public universities but has been observed in several public universities worldwide.

In Nigeria, accounting students face the challenge of effectively applying their acquired knowledge and skills. There is a high prevalence of technical ineptitude and misuse of certification among those who have completed business education programmes (Hockings, Thomas, Ottaway, & Jones, 2018; Yusnaini, Burhanudin, & Hakiki, 2020). This indicates that the expected acquisition of knowledge did not occur throughout their tenure at the university, leading to subpar academic performance and a lack of ability to substantiate their qualifications.

This study investigates the underlying reasons contributing to the high and persistent failure rate in cost accounting, specifically in publicly owned institutions of higher learning in the south-south region of Nigeria. The purpose was to provide educators and the government with the necessary academic foundation to appropriately address the situation. Universities should produce business education graduates with the necessary skills and knowledge to contribute to the financial industry and address existing gaps within organizations.

Accurately evaluating each student's individual understanding and contributions can lead to unfair assessment outcomes. By carefully considering strategies, educators can mitigate the challenges of collaborative learning in cost accounting and help students achieve better performance. This study provides insights into the fundamental factors contributing to failure and can potentially alter the perspectives of parents and educators who neglect to prioritize teacher-student relationships, thereby hindering the academic success of business education students.

### ***1.3 Purpose of the Study***

The primary objective of this study is to investigate the correlation between collaborative and competitive learning styles and students' academic achievement in the field of Cost Accounting. Specifically, this study sought the following:

1. investigated the correlation between the implementation of collaborative learning styles and students' academic achievement in the field of cost accounting.
2. investigated the correlation between the implementation of competitive learning styles and academic achievement of students in the field of cost accounting.

### ***1.4 Research Questions***

The study was guided by the following research question:

1. What is the correlation between the utilization of a collaborative learning strategy and the academic achievement of students in the field of cost accounting?
2. What is the correlation between the implementation of a competitive learning strategy and students' academic achievement in the cost accounting field?

### **1.5 Research Hypotheses**

A null hypothesis was constructed and evaluated at a significance level of 0.05.

H01: Collaborative learning techniques do not exhibit a statistically significant correlation with students' academic achievement in the field of Cost Accounting.

H02: Competitive learning strategy does not exhibit a statistically significant correlation with students' performance in the field of Cost Accounting.

### **1.6 Significance of the Study**

The study would also be of benefit to professional bodies such as the Institute of Chartered Accountants of Nigeria (ICAN), the Association of National Accountants of Nigeria (ANAN), the Nigerian Institute of Taxation (NIT), and other professional bodies in that they would be aware that students have different styles of learning their course content. This would help these professional bodies prepare study packages and examinations to improve student performance.

Researchers, especially those in education, accounting, and business-related areas, will find the information contained in this study useful for further research. They will be obtained from the literature, findings, and recommendations of this study.

## **2. Literature Review**

### **2.1 Theoretical review**

#### **2.1.2 Experiential Learning Theory: David A. Kolb (1984)**

Experiential Learning Theory (ELT) was formulated by David A. (Kolb, 1984), with a focus on the significance of concrete experiences, introspective observation, abstract conceptualization, and active experimentation as integral components of the learning process. The utilization of this tool is prevalent in the realms of education, training, and professional development. The field of English Language Teaching (ELT) has the potential to exert a substantial influence on the pedagogy and acquisition of subjects, such as cost accounting. By commencing their learning process with tangible experiences, students are able to actively interact with real-world data and circumstances, facilitating their ability to contemplate and analyze their observations. Consequently, this process enables students to cultivate abstract conceptualization skills. This can facilitate a more profound comprehension of costing procedures and their ramifications in company decision making. The field of English language teaching (ELT) also encourages active experimentation with novel concepts, enabling students to engage in exercises that facilitate their comprehension of how factors influence costs and decision-making outcomes. The application of ELT's learning style framework to cost-accounting training facilitates the integration of theoretical concepts and practical applications for students. By integrating principles of English Language Teaching (ELT) into cost accounting education, educators have the potential to facilitate the development of a more profound comprehension of cost accounting concepts and their practical ramifications among students.

### **2.2 Conceptual review**

#### **2.2.1 Collaborative Learning Approach and Students' Performance**

Anthony-Okeke (2020) opines that collaborative learning is a widely studied teaching and learning approach that involves two or more individuals working together to acquire knowledge or skills collectively. This approach contrasts with traditional methods such as lectures and textbooks, which focus on individual learning. Collaborative learning encourages active participation, critical thinking, communication skills, and social interaction and has been widely studied and debated. This can enhance student engagement and motivation by creating a dynamic and interactive learning environment. Working with peers on challenging tasks can increase students' interest in the subject matter, stimulate their aptitude for analysis and problem-solving, and provide opportunities to encounter other viewpoints and concepts (Jones 2017). Communication skills are essential for effective interpersonal relationships

and career success. Collaborative projects encourage teamwork and cooperation that are highly valued in the professional world.

Learning how to collaborate effectively is essential for the success of many careers. Discussing and teaching concepts to peers reinforces one's understanding of the material, strengthening memory retention, and long-term learning. Collaborative learning aligns well with constructivist learning theories, suggesting that individuals actively build their knowledge by interacting with their environment and peers (Chauhan 2012; Rakow 2019). However, collaborative learning can be challenging because of potential conflicts within groups, varying levels of contribution from individuals, and logistical issues in arranging group activities. Designing effective assessments for collaborative learning can be complex, and grading may be based on both individual and group performance to ensure fairness and accountability. Collaborative learning may be more effective in certain cultures or for certain personality types, and some individuals may prefer solitary learning environments.

#### *2.2.4 Competitive Learning Approach and Students' Performance*

Competitive learning styles in education involve creating an environment in which students compete to achieve better academic outcomes. This can include activities such as quizzes, debates, group projects, and competitions that encourage active engagement with the material (Heritage 2018). The impact of competitive learning styles on students' academic performance can vary, with some students thriving in competitive environments and others feeling stressed or under pressure. Striking a balance is essential to ensure that competition remains constructive and does not hinder the overall learning experience.

In cost accounting, competitive learning approaches can involve solving complex problems, participating in cost analysis competitions, or engaging in case studies to apply cost accounting principles to real-world scenarios. These activities promote active learning, critical thinking, and deeper understanding of the subject (Hofer & Ridout, 2018; Hofer & Stern, 2016). Teachers should recognize that students have different learning preferences, and ensure that the competitive environment remains positive and supportive. They should encourage healthy competition and discourage behaviors that might lead to negative experiences for certain students.

Designing assessment methods that fairly evaluate student performance and provide constructive feedback is crucial (Fakoya, 2014; Kidane et al., 2020). The focus should be on the quality of learning and understanding rather than just the outcome of the competition. Teachers should be mindful of individual differences and create opportunities for all students to participate and succeed regardless of their prior knowledge or abilities.

Evidence concerning the consistency or stability of learning styles and approaches to learning is inconclusive, and further investigation is needed to explore the relationship between learning approaches and other psychological constructs. Healthy competition involves respect, effort, perseverance, and interest from all participants, whether between individuals or within a committee competing against another committee.

### **2.3 Empirical Review**

In a study by Omodero (2020), an investigation was conducted to explore the many elements associated with the inability of students to develop accounting competence. This research employed a survey methodology to gather data from 217 senior accounting students from a Nigerian publicly funded college during the 2019–2020 academic year. These students were selected because of their previous failures in an accounting course. An identical methodology was employed when gathering data from instructors whose courses were retaken by students at any stage of the program. The use of a standardized questionnaire facilitated the comprehensive assessment of psychological concerns associated with difficulties in information processing and other situations related to procrastination. The study presents findings that suggest various factors contribute significantly to students' underperformance in accounting courses. These factors include class absenteeism, insufficient commitment to studies, excessive use of smartphones and social media, parental influence on career

choice, inadequate teamwork skills, limited access to study materials, inadequate mathematical and accounting knowledge, failure to complete assignments, limited time dedicated to learning, difficulty retaining information, and personal and familial challenges. The report proposes the implementation of supplementary educational programs for learners who are at a higher risk of academic underachievement as well as advocating for governmental assistance in enhancing the overall quality of the educational system within the country.

Temelli (2018) conducted this study. This study aimed to investigate the factors contributing to the challenges faced by students in understanding accounting courses at Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences, Department of Business Administration. The findings emphatically revealed that the reasons for the lack of comprehension of accounting subjects experienced by students included lack of interest in the course, complex course content, problem of understanding textbooks, insufficient practical examples, incompetence of a lecturer, and the difference between accounting theory and its practice.

In their study, Christensen, Harrison, Hollindale, and Wood (2019) also examined the impact of a team-based instructional strategy on students' performance. They discovered that engaging in teamwork not only improved students' performance in accounting courses but also enhanced their proficiency in various roles such as task leading, socio-emotional leading, and knowledge provision.

Faidley (2018) examined and contrasted the academic achievements of students enrolled in accounting courses. This study specifically focused on the differences in performance between students who received traditional face-to-face (F2F) instruction and those who were taught through an online platform. The study revealed a statistically significant difference in academic performance between students who received face-to-face instruction and those taught using an online platform.

Fortin, Viger, Deslandes, Callimaci, and Desforges (2019) conducted a study to examine the efficacy and degree of satisfaction among accounting students in a mixed instructional format that used both traditional in-person teaching and online platforms. The findings of this study demonstrated that both modes of course content delivery yielded comparable outcomes, aligning with the principles posited by the equivalence hypothesis.

Onay and Benligiray (2018) utilized a multiple regression model to examine the influence of seven factors on the academic performance of students enrolled in accounting courses. The investigation was conducted with a cohort of students who completed their studies between 2011 and 2017. The findings of the study indicate a significant correlation between high school education and students' academic success in accounting courses.

Shaffee et al. (2019) investigate the factors contributing to the suboptimal academic performance of accounting students enrolled in a Malaysian public university. A structured questionnaire was provided to a sample of 83 final-year accounting students who had experienced failure in an advanced financial reporting course on at least one occasion. Based on the results, it was determined that proficiency in English did not have a significant impact on the outcome of the Advanced Financial Analysis Course. However, characteristics such as class attendance, participation in curricular activities, and engagement in internship experiences emerged as primary contributors to student failure in the course.

Velasco (2019) examines the factors contributing to student failure in accounting courses at a college in the Sultanate of Oman. This study examines the factors contributing to the failure of accounting courses, as seen by both students and instructors. From a student's perspective, several factors have been highlighted, including the presence of difficult accounting terminologies, limited time availability, large class size, insufficient foundational knowledge in accounting, and lack of effective communication skills. According to the teachers, problems such as inadequate class attendance, tardiness in student arrival, high student-to-teacher ratios, and lack of prior accounting knowledge were identified as potential contributors to students' difficulties in accounting classes.

Onay and Benligiray (2018) investigated the impact of internal factors on the academic achievement of students enrolled in accounting courses inside a vocational school that does not primarily focus on accounting education. The present study used a multiple regression model as a research methodology to examine the impact of seven independent factors on the graduation rates of students within the time period spanning from 2011 to 2017. The findings of this study indicate that there is a significant correlation between high school education and academic performance in accounting courses. Research findings indicate that academic tendencies, as evaluated by the average grades of students, play a significant role in determining the success of accounting courses. Furthermore, achievement in a prior accounting course has a direct impact on performance in subsequent accounting courses. The findings of this study have significant implications for enhancing the quality of education through informed decision making by academic administrators and educational counsellors.

### **3. Research Methodology**

#### **3.1 Design of the Study**

This study utilized a descriptive research design, focusing on a population through a random sample, to draw generalizations based on data collected from a fraction of the population. This design assumes that the dependent variables (students' academic performance) have already occurred, while the independent variable (students' learning approaches) was observed.

#### **3.2 Area of the Study**

This study explores Nigeria's south-south geopolitical zone, comprising six states, known as the Niger Delta oil zone. It also highlights the presence of four Federal Universities in the zone: the University of Benin, the University of Calabar, the Federal University of Otueke, and the University of Uyo.

#### **3.3 Population of the Study**

The population of the study consists of all 556 final-year business education students in the four Federal Universities in South-south Nigeria obtained from the Departments of Business Education in the four Federal Universities slated for the study.

#### **3.4 Sample and Sampling Technique**

A study was conducted on 248 final-year business education students from four federal universities in South-south Nigeria using cluster sampling. Appah (2020) recommends a response rate of at least 30%. The sources of the study are listed in Table 1.

Table 1. Distribution of Respondents According to Clusters/Federal Universities

<b>Federal Universities in South-South, Nigeria.</b>	<b>Number of Final Year Business education Students</b>	<b>No. of Students (45%) Sampled</b>
University of Uyo	68	30
Univerisity of Calabar	133	60
University of Portharcourt	166	74
University of Benin	189	84
<b>Total</b>	<b>556</b>	<b>248</b>

#### **3.5 Instrumentation**

This study utilized Grasha-Riechmann's student learning style scale (GRSLSS) and students' final grades in cost accounting from previous semesters. The GRSLSS, a 60-item questionnaire, measures learning styles and social interactions, while the final grades represent academic performance. This study was conducted at four federal universities, focusing on students' learning styles and academic performance.

#### **3.6 Validation of the Instrument**

Shaheen (2016) emphasized the importance of ensuring the validity and reliability of GRSLS scales before adapting them to different countries. The instrument was subjected to face validity testing by three research experts from the University of Uyo.

### **3.7 Reliability of the Instrument**

Shaheen (2016) suggested assessing the reliability of the GRSLS using a test-retest method, administering the instrument twice to non-participants, and using Pearson product-moment correlation, resulting in a reliability coefficient of 0.77.

### **3.8 Administration of the Instrument**

The questionnaire was administered by a researcher and research assistants from various institutions selected for the study. The instrument was administered to respondents and collected immediately upon completion to avoid any loss.

### **3.9 Data Analysis Technique**

The study utilized the Pearson Product Moment Correlation (PPMC) to investigate the correlation between final-year business education students' learning style preference and their final grade in cost accounting.

## **4. Results and Discussions**

An analysis of the data results and a discussion of the findings are presented in this chapter. The findings are presented and discussed based on study variables. The results of the analysis are as follows.

### **4.1. Research Question one**

What is the correlation between the implementation of collaborative learning strategies and students' academic achievement in the field of cost accounting?

Table 2. presents the correlation between the implementation of a collaborative learning strategy and its subsequent impact on students' academic achievement in the field of cost accounting.

<b>Variables</b>	<b>N</b>	<b>r</b>	<b>Decision</b>
Collaborative Learning Approach	248	.211	Weak positive
Students' Performance	248		

Source: Author's computation

The findings in Table 2 indicate that the implementation of a collaborative learning technique is associated with an r-value of .211. This suggests that there is a modest positive correlation between the implementation of collaborative learning methods and the academic achievement of students in the field of cost accounting within Federal Universities located in the South-south region of Nigeria.

#### **4.1.1 Research Question Two**

What is the correlation between the implementation of a competitive learning strategy and students' academic achievement in the cost accounting field?

Table 3 presents the correlation between the implementation of a competitive learning strategy and the academic achievement of students in the field of cost accounting.

<b>Variables</b>	<b>N</b>	<b>r</b>	<b>Decision</b>
Competitive Learning Approach	248	.285	Weak positive
Students' Performance	248		

Source: Author's computation

The results shown in Table 3 indicate that the implementation of the competitive learning strategy resulted in an r-value of .285. This finding suggests the presence of a modest positive correlation



between the implementation of a competitive learning strategy and the academic achievement of students studying Cost Accounting in Federal Universities located in the south-south region of Nigeria.

### Hypothesis 1

There is a lack of substantial correlation between the implementation of a collaborative learning strategy and students' academic achievement in the field of Cost Accounting.

Table 4 presents the results of a Pearson Product Moment Correlation Analysis, examining the association between the collaborative learning technique and students' performance in the field of cost accounting.

Variables	N	r-calc.	r-critical	Decision
Collaborative Learning Approach	248	.211	.113	Significant
Students' Performance	248			

Significant at .05 level; df = 246

The study's r-value of .211, which surpasses the crucial r-value of .113, rejects the null hypothesis, indicating a significant correlation between collaborative learning strategies and Cost Accounting academic achievement in Nigerian Federal Universities.

### Hypothesis 2

This study investigates the correlation between the implementation of a competitive learning strategy and the academic achievement of cost accounting students by examining the Pearson product-moment correlation.

Variables	N	r-calc.	r-critical	Decision
Competitive Learning Approach	248	.285	.113	Significant
Students' Performance	248			

Significant at .05 level; df = 246

The hypothesis testing results, as shown in Table above, indicate that the calculated r-value of .285 exceeds the critical r-value of .113. Consequently, the null hypothesis is rejected, suggesting a significant association between the competitive learning approach and students' performance in Cost Accounting at Federal Universities in South-south Nigeria.

## 4.2 Discussion of findings

### 4.2.1 Collaborative Learning Approach and Students' Performance

The study found a positive relationship between collaborative learning and students' academic performance in cost accounting at federal universities in southern Nigeria. Collaborative learning involves students learning to get along with others and teachers, which helps them with their self-assessment and academic performance. Teachers can monitor and document language progress, concept development, and individual learning styles, which can be used to adjust teaching and learning processes. This implies that the competitive learning approach has a direct relationship with students' performance in cost accounting, meaning that the more competitive students are in their cost accounting class, the better their academic performance in the course, and vice versa. This may be attributed to the fact that competitive students will need to study well enough to come out the best in their class, and as a result, they tend to perform well in their courses. As mentioned earlier in the literature, competition has to do with a contest for some prize, honor, advantage, or supremacy; it can be either healthy or destructive, and this depends on what transpired in the competitive situation. This result aligns with that of Omodero, who found that factors such as inadequate teamwork skills, limited access to study materials, and lack of mathematical skills were significant contributors. Christensen et al. (2019) find that team-based instructional strategies improve students' performance in accounting courses and enhance their proficiency in various roles.

#### *4.2.2 Competitive learning approach and students' performance in cost accounting*

The competitive learning approach has a direct relationship with students' performance in cost accounting, as more competitive students perform better in their classes and receive recognition of their academic performance. This approach requires students to study hard and to use various learning styles to achieve success. Some students compete for fun and excitement, and are satisfied with their individual accomplishments. In educational settings, students who are competitive often display a preference for group leadership and teacher-oriented instructional processes. They derive satisfaction from being recognized for their exemplary performance and actively seek opportunities to outperform their peers. The positive relationship between competitive learning and academic performance suggests that competitive skills may be necessary in future occupations. In educational settings, students who exhibit a competitive nature often display a preference for assuming the role of group leader during discussions. Additionally, they tend to gravitate toward instructional processes oriented around the teacher, rather than student-led approaches. Furthermore, these individuals derive satisfaction from being recognized in class for their exemplary performance and actively seek out opportunities to outperform their peers in various class activities. This finding aligns with those reported by Faidley (2018) and Fortin et al. (2019), Onay and Benligiray (2018), who found a significant correlation between high school education and students' academic success in accounting courses. Onay and Benligiray (2018) find a significant correlation between high school education and academic performance in accounting courses, with academic tendencies playing a significant role in determining course success.

### **5. Conclusion**

Inevitably, students bring a great diversity of learning styles to the classroom. Based on the purpose of the study and the findings generated, the following conclusions are drawn: The study shows that students have different learning styles. The manner in which students approach their learning goes a long way toward determining their academic performance. Thus, the more students give reasonable consideration to their learning styles, the better their academic performance will be. Business education students offering cost accounting should try as much as possible to avoid the avoidant learning approach because of its negative relationship with students' performance in the course. Thus, the study makes the following recommendations:

Learning styles significantly impact students' learning processes, necessitating lecturers to embrace diversity and creativity in teaching and assessment methods to create enjoyable and meaningful learning experiences. Understanding student learning styles is crucial in selecting effective teaching strategies.

Parents, guardians, and lecturers should focus on developing independent learning abilities in their students to enhance their performance, with lecturers planning collaborative and competitive activities, and setting high expectations.

#### **5.1 Educational Implication**

The findings also indicate a significantly positive relationship between these learning styles and students' academic performance in cost accounting at federal universities in south-south Nigeria. This implies that the more students are encouraged to share ideas with each other, to compete with each other, and to participate in classroom activities, the better their academic performance in cost accounting will be. By implication, instructors are also expected to help students develop these three different styles of learning, since cost accounting as a course studied at the university involves many calculations and concepts; students need to be motivated to study together; they need to be motivated to take part in classroom activities such as assignments, tests, exercises, answering questions, making contributions, asking questions when they do not understand what is being taught, etc.; and they need to be motivated to want to be the best in the class. This will help students develop collaborative, competitive, and participant learning styles, which will improve their performance in the courses offered at the university (including cost accounting).

#### **5.2 Limitations**

The sample size was small, which may have affected the reliability of our findings.

## Acknowledgement

We would like to extend our sincere appreciation to all individuals who have made valuable contributions to our research. We express our gratitude to our adviser, Eke Promise, for providing valuable guidance and support over the duration of this project. We extend our gratitude to the individuals who generously donated their time and shared their thoughts, as well as to the numerous individuals and organizations that provided vital information and support. The collective efforts of individuals involved have been crucial in enabling the execution of this project.

## References

- Anthony-Okeke, L. I. (2020). *Crossing the bridge: Nigerian students' independent learning experience in English sixth form college*: The University of Manchester (United Kingdom).
- Appah, E. (2020). *Research Methodology: Principles, Methods and Techniques*: Vinson Printing and Publishing Enterprises.
- Caratiquit, K. D., & Caratiquit, L. J. C. (2023). ChatGPT as an academic support tool on the academic performance among students: The mediating role of learning motivation. *Journal of Social, Humanity, and Education*, 4(1), 21-33.
- Chauhan, S. (2012). Cooperative learning versus competitive learning: which is better. *Int J Multidiscip Res*, 2(2), 358-364.
- Christensen, J., Harrison, J. L., Hollindale, J., & Wood, K. (2019). Implementing team-based learning (TBL) in accounting courses. *Accounting Education*, 28(2), 195-219.
- Faidley, J. (2018). Comparison of learning outcomes from online and face-to-face accounting courses.
- Fakoya, M. B. (2014). Failure modes and effects analysis of repeating accounting students. *Journal of Social Sciences*, 41(1), 37-43.
- Fortin, A., Viger, C., Deslandes, M., Callimaci, A., & Desforges, P. (2019). Accounting students' choice of blended learning format and its impact on performance and satisfaction. *Accounting Education*, 28(4), 353-383.
- Hassel, S., & Ridout, N. (2018). An investigation of first-year students' and lecturers' expectations of university education. *Frontiers in psychology*, 8, 2218.
- Heritage, M. (2018). Making assessment work for teachers.
- Hockings, C., Thomas, L., Ottaway, J., & Jones, R. (2018). Independent learning—what we do when you're not there. *Teaching in Higher Education*, 23(2), 145-161.
- Hofer, S. I., & Stern, E. (2016). Underachievement in physics: When intelligent girls fail. *Learning and Individual Differences*, 51, 119-131.
- Jones, E. (2017). Problematising and reimagining the notion of 'international student experience'. *Studies in higher education*, 42(5), 933-943.
- Kidane, H. H., Roebertsen, H., & Van der Vleuten, C. P. (2020). Students' perceptions toward self-directed learning in Ethiopian medical schools with new innovative curriculum: a mixed-method study. *BMC medical education*, 20(1), 1-10.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*: Prentice-Hall.
- Lichauco, T. A. N., Molina, A., Tengco, D., & Vidallo, M. F. (2023). Academic dishonesty in online classes: Investigating self-reports using McCabe's Academic Integrity Survey. *Journal of Social, Humanity, and Education*, 4(1), 1-19.
- Matthew, U. J., Nwobueze, C. C., & Onwuzor, O. A. (2023). Perception of violence and food security in Emohua Local Government Area of Rivers State, Nigeria. *Journal of Social, Humanity, and Education*, 4(1), 35-47.
- Omodero, C. O. (2019). Government general spending and human development: A case study of Nigeria. *Academic Journal of Interdisciplinary Studies*, 8(1), 51.
- Omodero, C. O. (2020). Factors Associated with Under-Performance of Accounting Students: Evidence from a Nigerian Public University. *International Journal of Education and Practice*, 8(3), 432-440.

- Omodero, C. O., & Nwangwa, K. C. (2020). Higher education and economic growth of Nigeria: Evidence from co-integration and Granger causality examination. *International Journal of Higher Education*, 9(3), 173-182.
- Onay, A., & Benligiray, S. (2018). Internal factors affecting student performance in accounting courses at a vocational school. *Sumerianz Journal of Economics and Finance*, 1(3), 82-90.
- Rakow, K. (2019). Incorporating financial literacy into the accounting curriculum. *Accounting Education*, 28(4), 384-400.
- Shaffee, N. S., Ahmad, E. M., Idris, S. I. Z. S., Ismail, R. F., & Ghani, E. K. (2019). Factors Influencing Accounting Students' Under-Performance: A Case Study in a Malaysian Public University. *International Journal of Education and Practice*, 7(1), 41-53.
- Shaheen, N. (2016). International students' critical thinking-related problem areas: UK university teachers' perspectives. *Journal of Research in International Education*, 15(1), 18-31.
- Storer, T. (2018). *The effect of project based learning on the creativity of elementary students*: Wilkes University.
- Temelli, F. (2018). Difficulties In Understanding Accounting Courses And Its Reasons: A Research For Ağrı İbrahim Çeçen University Faculty Of Economics And Administrative Sciences- Department Of Business Administration Students. *Gümüşhane University Electronic Journal of the Institute of Social Science/Gümüşhane Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi*, 8(22).
- Velasco, R. M. (2019). Factors Associated with Failure in Accounting: A Case Study of the Omani Students. *International Journal of Higher Education*, 8(6), 157-170.
- Yusnaini, Y., Burhanudin, B., & Hakiki, A. (2020). Field dependence cognitive and learner aptitudes: experimental study on accounting student performance. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 11346-11362.