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Alleviating Financial Accounting Anxiety to Improve Academic Performance among Business Education Students in Colleges of Education in Nigeria

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Abstract: Despite its significance, a significant proportion of students encounter challenges when engaging with coursework involving calculations. As a result, the study examines the perceived influence of Financial Accounting Anxiety on the academic performance of business education students in colleges of education in Kwara State, Nigeria. The population comprised students across three (3) State-owned Colleges of Education, totalling 1,016, and the sample size was determined using Krejcie and Morgan's (1970) method, yielding 279. However, convenience sampling was used to distribute the questionnaire to relevant students. The data were obtained using a Google Forms questionnaire shared via WhatsApp among students. Descriptive and inferential statistical methods were employed to understand the data. A significant relationship was found between complex accounting standards and students' academic performance. Meanwhile, no significant effect of low self-efficacy on academic performance. An emotional response was found to be equally significantly related to the students' academic performance. Finally, poor study habits were found to influence academic performance. The inherent involvement in accounting principles and standards often creates barriers to comprehension, thereby affecting students' ability to perform effectively in financial accounting courses. This suggests that the design and delivery of accounting curricula need to consider the cognitive load imposed by these standards and how they may exacerbate academic challenges for some students. Facilitators should endeavour to break down complex accounting methods into smaller, more digestible modules.

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INTRODUCTION

Business education is a combination of various fields, including Financial Accounting (FA), Marketing, Management, and Entrepreneurship Education, and is structured to provide students with the required knowledge and skills to succeed in the business world. It can play a significant role in the country's educational growth and economic development (Fisher et al., 2024; Lloyd et al., 2025). Financial Accounting is one of the basic courses in Nigerian Colleges of Education (CoEs), as it equips students to practice a broad spectrum of professions. Nonetheless, several students in such institutions experience substantial difficulties with calculative coursework, especially in accounting. This has been reported in various studies that attribute the anxiety and academic performance difficulties in accounting to fear of failure (Brelsford & Doheny, 2022), improper teaching methodologies (Dolezal et al., 2025), unfamiliarity to basic accounting principles (Yang et al., 2024) and lack of supportive systems (Fisher et al., 2024). The fact that these challenges persist in Nigerian CoEs, however, stems from an intersection of contextual factors within the Nigerian educational system. Rigidity in the curriculum is among the main reasons for students' predicaments in accounting education. The structure of the financial accounting curriculum in most CoEs tends to be too theoretical, with little practical application, which does not appeal to students with diverse learning styles (Brelsford & Doheny, 2022). In addition, the curriculum is usually structured as a one-size-fits-all model, with little flexibility to accommodate learners with varying understandings or prior knowledge. Such rigidity increases students' sense of inferiority and fear of failure, especially in a subject as complex (Doz et al., 2025; Qiangzhen, 2025).

Also, lecturers' qualifications and pedagogical approaches are critical in shaping students' learning experiences. Nigerian CoEs have many lecturers who may not be well-trained in current teaching methods, especially in courses such as accounting, which require both theoretical knowledge and mathematical skills. According to Wang et al. (2025), instructional approaches that place heavy emphasis on quantitative tests, such as exams and continuous assessments (CAs), are among the reasons for students' anxiety. Although they are effective for testing knowledge, these methods do not provide the support and opportunities for active participation and formative feedback that are essential for students' engagement and confidence in accounting studies (Yang et al., 2024). These are further compounded by institutional resource constraints. Nigerian CoEs are plagued by inadequate teaching resources, technology, and support services to help students grasp intricate accounting concepts. The absence of these vital resources, along with congested classrooms, also worsens the quality of teaching and student interaction, further increasing students' anxiety. The shortage of qualified tutors, along with the inability to provide individual attention, prevents students from overcoming their challenges in a timely manner.

This study is very important as it aims to establish the root causes of excessive worry and poor performance in accounting programs at Institutions of Education in Nigeria. It is important to understand the reasons behind the continued existence of these problems to help formulate specific interventions that can change teaching practices, redesign the curriculum, and provide more support to students within an institution. The fact that accounting is an essential part of business education means that enhancing students' competence in this field has a far-reaching effect on their success in their studies and upcoming employment (Islam *et al.*, 2020; Jansen & De Villiers, 2024). Although other researchers have already examined different aspects of accounting education, such as anxiety, fear of failure, and teaching techniques, none have recently examined the challenges in the context of Nigerian Colleges of Education. Most of the current literature (Li et al., 2022; Fisher et al., 2024; Wang et al., 2025) is concentrated on the general educational issues that affect the field of accounting in general or on the situations at large that fail to consider the institutional, curricular, and resource-based limitations specific to the CoEs in Nigeria. These research gaps complicate the ability to draw conclusions that can be readily generalised to Nigerian educational contexts and CoEs, especially the CoE, where the institutional structure and resources differ considerably from those of other higher education institutions. Thus, the purpose of the present research is to address this gap and discuss the issues that emerge in Nigerian CoE, particularly regarding the provision of effective accounting education, and how these issues lead to anxiety among students and to their dismal performance. Such a

contextual study will enable the creation of more specific solutions that may help maximise student performance in accounting and related majors at Nigerian Colleges of Education. Consequently, prior studies have yielded inconsistent results, leaving gaps that the present study aims to address.

- i) To what extent does a complex accounting standard influence academic performance among business education students in Kwara State Colleges of Education?
- ii) To what extent does low self-efficacy affect academic performance among business education students in Kwara State Colleges of Education?
- iii) To what extent does emotional response influence academic performance among business education students in Kwara State Colleges of Education?
- iv) To what extent do poor study habits affect academic performance among business education students in Kwara State Colleges of Education?

LITERATURE REVIEW AND HYPOTHESES

Financial Accounting Anxiety (FAA) has been a topic of discussion in previous literature as an indicator of stress, anxiety, and fear of those engaged in working with financial accounting procedures, concepts, and duties (Hlay et al., 2023). For example, Visser *et al.* (2021) suggested that this anxiety may affect students of accounting and individuals employed in the financial sector. A different point of view, provided by Dom et al. (2025), offers important insights into the nature, causes, effects, and strategies for controlling FAA in the handling of financial records. It is worth noting, however, that the FAA can be described as having a negative emotional response to activities related to accounting, often due to a fear of errors, confusion with complex financial language, or stress during exams or accounting work (Doz et al., 2025; Fergus & Petrick Smith, 2022).

Dimensions of Financial Accounting Anxiety

- a) **Complex Accounting Standards (CAS):** The need to improve the quality and comparability of financial information in various jurisdictions has determined the evolution of accounting standards. However, as business transactions have become more complex, standards have evolved to address a wider range of situations, including derivatives, revenue recognition, leases, and financial instruments (Feng et al., 2025). Consequently, Islam et al. (2020) characterised CAS as a complex and elaborate set of guidelines, rules, and principles that govern financial reporting and accounting practices and explained that these standards are created to address muted financial dealings and economic realities (Islam et al., 2020).
- b) **Low Self-efficacy:** The mental component of anxiety has been denoted with the term low self-efficacy, which can be defined as worry, negative expectations, and worries about the performance or the result of a specific situation or event (Boamah et al., 2025). In fact, the phrase has been used in many instances to identify with negative thinking processes, i.e., a lack of confidence in oneself and fear of failure, which may interfere with students' concentration and attention in their studies. Sandra et al. (2025) suggest that, besides somatic anxiety, which is a physical reaction to stress (increased heart rate, sweating), the two-dimensional theory of anxiety distinguishes low self-efficacy.
- c) **Emotional Response:** Emotional response is another term discussed in the literature that conveys the emotional and physiological reactions people experience in cases that can be considered stressful or threatening (Namkung et al., 2023). It is this type of anxiety that processes emotions and causes arousal to fear or stress due to its expression in increased arousal, nervousness, and emotional anguish, which often leads to fear or worry (Mohzana, 2024). According to Mowen et al. (2018), personality traits, including neuroticism and emotional sensitivity, can influence the prevalence of emotional responses, especially in high-stress situations such as academic performance or public speaking.
- d) **Poor Study Habits:** Poor study habits are ineffective, or rather, the opposite: unhelpful habits and behaviours that cannot enable a student to learn effectively and memorise what they learn. The habits adversely affect academic achievements and may contribute to the further development of stress, decreased motivation, and low self-esteem (Okay-Somerville et al., 2022). The concept is understood

by examining the causes, manifestations, and effects of poor study habits. This was also supported by Doz et al. (2025) in their cognitive model of poor study habits, which assumed that these behaviours and routines are ineffective or counterproductive and inhibit a student's ability to learn, memorise information, and perform well academically.

Students' Academic Performance

Academic performance is a multidimensional construct that is extensively investigated in educational research and literature today (Wyk & Swart, 2020). It is typically described as the level of students' academic performance in their learning, which is usually measured by grades, test scores, and general academic success, encompassing both cognitive and non-cognitive abilities (Putwain, 2023). Nevertheless, Klee et al. (2022) describe academic performance as the result of education, defined as the degree to which a student, teacher, or school has accomplished its educational objectives. In the COE environments, it is typically measured in terms of different tests, including standardised tests, the average grade point or GPA, and the completion of academic tasks or projects.

Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) was proposed by Icek Ajzen in 1985 as an extension of the earlier Theory of Reasoned Action (TRA), which he developed with Martin Fishbein in 1975. The main purpose of TPB is to predict and explain human behaviour in specific contexts. It posits that three primary Factors drive human behaviour: attitudes toward the behaviour (the degree to which a person has a favourable or unfavourable evaluation of the behaviour in question); subjective norms (the perceived social pressures to perform or not perform the behaviour); and perceived behavioural control (the individual's perception of the ease or difficulty of performing the behaviour, which is directly linked to their confidence in their ability to execute it) (Ajzen, 1991; Aliyu, 2024). From the analysis presented, TPB is often applied to situations where individuals have incomplete volitional control, meaning that while they intend to perform a behaviour, external Factors may influence the actual execution (Aliyu, 2024). This can be applied to students in higher institutions offering financial accounting-related courses by aligning their behaviour with that of calculation courses. Fig. 1 further illustrates the application of the theory:

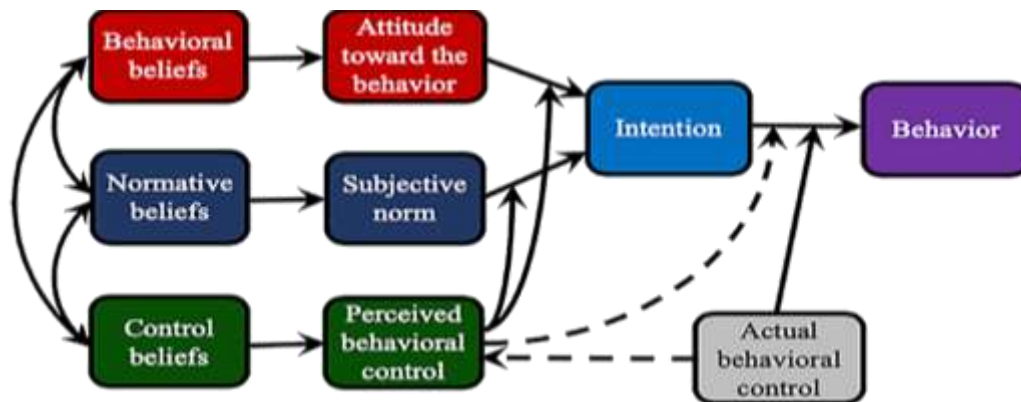


Fig. 1: TPB Model (Adapted from: Aliyu (2024))

TPB can be applied to explain the behaviour of individuals who are anxious about a financial issue or accounting procedure, as shown in Fig. 1, in the context of students' behavioural intention towards FAA. For example, when a student considers financial accounting tasks as complicated or stressful, they will form negative attitudes towards completing them. Consequently, when one believes that peers, family, or work require financial accounting expertise, these social forces can influence anxiety and performance. However, as long as a person believes they lack the necessary skills or resources to manage finances effectively, the

perceived inability to do so will result in anxiety and a lower likelihood of performing financial tasks. On the other hand, anxiousness may be alleviated through a state of control (Hamid et al., 2024). This means that knowledge about these three Factors can be used to create interventions that decrease FAA by modifying attitudes, offering social support, or increasing perceived control through education and resources.

Walberg's Theory of Educational Performance

Walberg's theory, proposed by Walberg (1992), identified 28 categories of learning influence. Of the 11 most influential domains of variables, eight involved social-emotional influences: classroom management, parental support, student-teacher interactions, social-behavioural attributes, motivational-effective attributes, the peer group, school culture, and Classroom climate (Walberg, 1992). Distant background influences (state, district, school policies, organisational characteristics, curriculum, and instruction) were less influential. Aydın and Özgeldi (2024) affirmed that direct intervention in the psychological determinants of learning is the most effective avenue for reform.

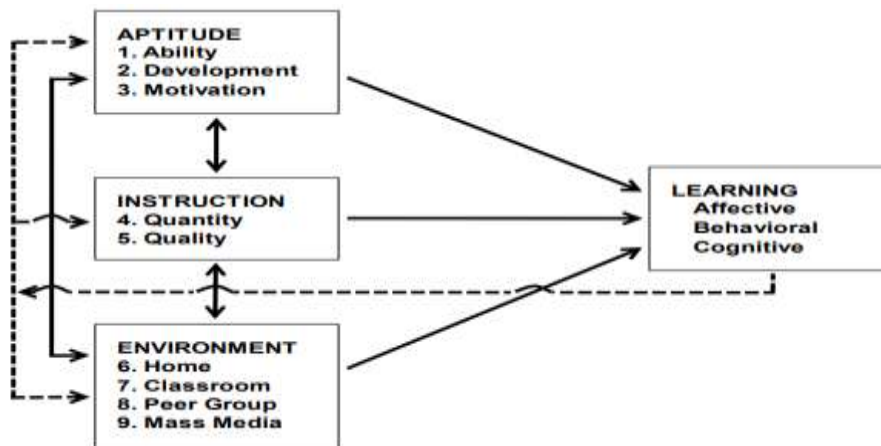


Fig. 2: Walberg's Theory of Educational Performance

Source: Walberg (1981)

According to the theory, as shown in Fig. 2, Walberg incorporates various factors, including student motivation, teacher effectiveness and family background, to explain the educational outcomes. According to the author, the quality of instruction, greater student engagement, and positive learning conditions can all contribute to improved academic performance. It also highlights the significance of intrinsic and extrinsic motivators and recommends that an ideal solution to the various factors could be an equalised approach that considers both to enhance educational performance (Sandra et al., 2025). This theory has been implemented by several educationists as a basis for gauging students' educational performance; however, it has been criticised as a broad, general theory that may not adequately account for individual learning needs and cultural variations (Callimaci et al., 2024). Therefore, although the theory can be of great assistance in explaining major factors affecting educational performance, the theory's general character and the continuously changing environment of educational studies can limit its application.

Theoretical Linkage for Hypotheses

Acampora et al. (2022) address the use of complex operational strategies in the hospitality industry and the role of accounting standards in business education. As complex strategies affect the performance of the hospitality industry, complex accounting standards could also affect the academic performance of business education students (Fennig et al., 2025). This comparison supports the hypothesis that academic

achievement can be influenced by accounting standards that may facilitate or inhibit it; hence, the hypothesis:

H₀₁: Complex accounting standards have no significant influence on the academic performance of business education students at Kwara State CoE.

Similarly, Aliyu (2024) focuses on the contribution of self-efficacy to academic citizenship, a finding consistent with Aydin and Ozgeldi (2024), who examine the mediating effect of self-efficacy on test anxiety and academic performance. These studies indicate that self-efficacy is a direct determinant of academic performance, thereby validating the hypothesis that low self-efficacy may impede students' academic performance (Asare, 2025). Both articles demonstrate that belief in one's abilities influences students' academic performance; therefore, H₀₂.

H₀₂: Low self-efficacy has no significant effect on academic performance among business education students in Kwara State CoE

The impact of emotional conditions, e.g., stress, anxiety, and burnout, on academic performance is studied in a variety of studies, including those by Brelsford and Doheny (2022), Fisher et al. (2024), and Klee et al. (2022). Their results reveal that emotional reactions such as anxiety and burnout have negative effects on the academic performance of students. This confirms the hypothesis that emotional reactions can play an important role in academic performance, as emotional strain reduces learning and the use of cognitive resources; hence, the hypothesis:

H₀₃: Emotional response has no significant influence on academic performance among business education students in KS CoE

Doz et al. (2025) and Sandra et al. (2025) show that cognitive and study skills can be enhanced through structured interventions, which are crucial to academic success. Habits, especially the establishment of effective cognitive strategies, are essential for fostering students' problem-solving and academic success. These results support the hypothesis that students' academic performance is adversely affected by poor study habits and improves when proper strategies are put in place (Lv, 2022); hence, the hypothesis:

H₀₄: Poor study habits have no significant influence on academic performance among business education students at KS CoE.

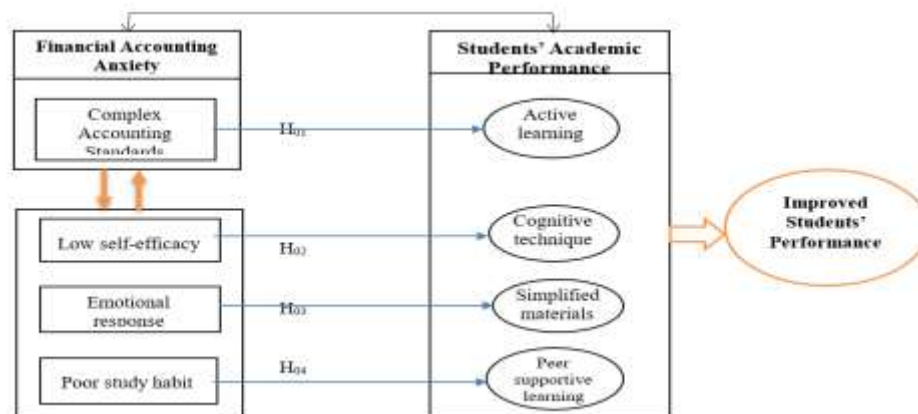


Fig. 3: Conceptual Framework

Fig. 3 presents study’s framework designed to explore the relationship between FAA and Students’ Academic Performance. The framework shows that independent variables of Complex Accounting Standards (the perceived difficulty in understanding and applying intricate accounting rules and regulations)’ low self-efficacy (i.e. mental stress related to the fear of failure, overthinking, or confusion while solving accounting problems); emotional response (emotional responses, such as fear, worry, or frustration, that arise from financial accounting tasks) and poor study habit (anxiety stemming from students’ poor relationship with his/her study, or peer pressure when discussing or presenting financial accounting tasks). The framework demonstrates the role of the mediating variable of strategies to alleviate FAA, which is meant to be an intervention to decrease FAA, in positively influencing academic performance due to their treatment of affective and poor study behaviours, which are the results of stress management workshops or psychological support, learners' exposure to complex standards, and through teaching and explaining real-life examples. It implies that anxiety related to financial accounting negatively affects students' performance by hindering their ability to actively participate, apply cognitive strategies effectively, utilise simplified resources, or engage in peer-supported learning.

METHODS

The study employs a descriptive survey design, a suitable method for collecting data from a population (Saunders *et al.*, 2016). As McNaughton (2018) notes, the survey method is highly reliable and easily accessible because it presents standardised questions to all respondents, thereby largely eliminating respondent subjectivity. Another reason the descriptive survey design should be implemented is that it allows depicting the existing situation without controlling variables or creating artificial environments, as Acampora *et al.* (2022) observe. The population of this study comprised students across the State-owned Colleges of education, as they serve as the foundation for producing professionally trained teachers for primary, secondary, and tertiary schools. This study was confined to three (3) State-owned Colleges of Education: Kwara State College of Education, Ilorin; Kwara State College of Education, Oro; and Kwara State College of Education, Lafiagi, because they are the oldest Colleges of Education in Kwara State and because Business Education Courses Are Available.

Table 1: Population of the Sampled COEs

S/N	Name	Population of Business Education Students	Sample Size
1	Kwara State College of Education, Ilorin	410	113
2	Kwara State College of Education, Oro	335	92
3	Kwara State College of Education, Lafiagi	271	74
	Total	1,016	279

Source: Field Survey across the selected CoE (2025)

However, the study employed Krejcie and Morgan's (1970) method to determine the sample size. At a 95% degree of accuracy, the desired confidence level of population size of 1,016, population proportion of 0.5 and degree of accuracy expressed as a proportion is 0.05. This sample size was prorated across the three (3) colleges of education selected in the study. Below explains the procedure used to arrive at the sample size:

$$s = X^2NP(1-P) \div d^2 (N-1) + X^2 P(1-P)$$

$$s = \frac{(3.841)(1,016)(0.5)(1-0.5)}{(0.05)^2(1,016-1) + (3.841)(0.5)(1-0.5)}$$

$$s = \frac{(3.841)(1,016)(0.5)(0.5)}{(0.0025)(1,016) + (3.841)(0.5)(0.5)}$$

$$s = \frac{975.61}{2.54 + 0.96}$$

$$s = \frac{975.61}{3.5}$$

$$s = 279$$

Therefore, the sample proportion across the COEs as presented in Table 1 is given as:

Kwara State College of Education, Ilorin

$$\frac{410}{1,016} \times 279 = 113$$

Kwara State College of Education, Oro

$$\frac{335}{1,016} \times 279 = 92$$

Kwara State College of Education, Lafiagi

$$\frac{271}{1,016} \times 279 = 74$$

While Krejcie and Morgan's (1970) formula was used to determine the appropriate sample size, which is commonly associated with probability sampling, the study employed convenience sampling due to practical constraints. This approach was chosen for its time- and cost-efficiency, enabling data collection within the available timeframe. However, to mitigate bias and ensure some degree of diversity within the sample, simple random sampling was used to select participants, as recommended by Saunders et al. (2016), ensuring that participants were randomly selected from the accessible pool of students (Nayak & Singh, 2021).

Validity and Reliability of Research Instrument

The research instrument, a structured questionnaire, was developed specifically for this study. To ensure its validity, the questionnaire underwent content validation through a pilot study. The questionnaire items were reviewed by subject experts to ensure they adequately captured relevant constructs, including complex accounting standards, low self-efficacy, emotional responses, and poor study habits. The reliability of the instrument was assessed using Cronbach's alpha, and the high values (above 0.90 for all variables) confirm the internal consistency of the items. While the scales were developed for the current study, they were grounded in existing theoretical frameworks and models in education and psychology to ensure relevance.

Table 2: Cronbach Alpha Reliability Coefficients

Variables	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha (α)
Complex Accounting Standards	26.6393	15.213	.869	.951
Low self-efficacy	26.8528	15.341	.812	.954
Emotional response	26.7654	15.399	.848	.952
Poor study habits	26.7995	14.939	.858	.951

Strategies to Alleviate FAA	26.7795	15.306	.875	.950
Academic Performance	26.8262	14.474	.880	.950

SPSS Output, 2025

Although the Cronbach’s alpha values are high (e.g., above 0.95), this does not necessarily indicate redundancy in the items. According to Hair et al. (2019), excessively high alpha values may result from the homogeneity of the scale items, likely due to strong conceptual alignment among the constructs. The high alpha values reflect the instrument’s ability to consistently measure each construct. However, factor analysis will be employed to explore the dimensionality and ensure that the items are appropriately grouped within their respective factors.

Procedures for Data Collection

To ensure a high response rate and participation, the Google Forms questionnaire was distributed via WhatsApp, a popular platform among students. This approach leverages the ease of use and availability of WhatsApp, thereby increasing the likelihood of respondents and response rates. To achieve the study’s purpose, descriptive and inferential statistical techniques will be employed to provide a picture of the data. The researcher distributed the questionnaire via the link sent to students with the help of the Head of Department. This was done in two (2) tranches. In the first tranche, a total of 186 questionnaires were retrieved (CoE, Ilorin = 90; CoE, Oro = 56; and CoE, Lafiagi = 40). Subsequently, a second tranche was sent to the students, and another 110 were retrieved (CoE, Ilorin: 30; CoE, Oro: 40; and CoE, Lafiagi: 40). Based on these figures, the sample size was determined, resulting in a 100% response rate. However, after data collection, the responses were analysed using SPSS for preliminary statistics and PLS-SEM for the structural model analysis. The diagnostic measures outlined above were computed to ensure the model’s validity and reliability, as shown in Table 2. The application of these diagnostics enhances the rigour of the methodology (Hair et al., 2019).

RESULTS AND DISCUSSION

Table 3. Socio-demographic Features

Constructs	Frequency	Percent
Gender		
Female	157	56.3%
Male	122	43.7%
Age		
< 20 Years	190	68.1%
> 20 Years	89	31.9%
Location of the College of Education		
College of Education, Ilorin	113	40.5%
College of Education, Oro	92	33.0%
College of Education (Technical), Lafiagi	74	26.5%
Level		
First Year	90	32.3%
Second Year	106	38.0%
Third Year	53	19.0%
Other Degree Programmes (specify)	30	10.8%
Have you taken any accounting-related courses before?		
Yes	100	100%
Total	279	100.0

Table 3 shows that the sociodemographic data on FAA and performance are closely linked to variables such as gender, age, institutional location, academic level, and students’ familiarity with the financial accounting subject, rather than being isolated to ability.

Descriptive Analysis

Table 4: Complex Accounting Standards

Constructs	SD		D		N		A		SA		Mean	SD
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Stat.	Stat.
Complex accounting standards make it difficult for me to understand the course material	5	1.8	0	0	5	1.8	97	34.6	173	61.8	4.55	.707
I spend a significant amount of time trying to grasp complex accounting standards, which affects my study schedule	5	1.8	5	1.8	5	1.8	72	25.7	193	68.9	4.58	.776
The complexity of accounting standards enhances my critical thinking and problem-solving skills	5	1.8	15	5.4	26	9.3	103	36.8	131	46.8	4.21	.945
Complex accounting standards are a barrier to achieving high grades in my accounting courses	0	0	5	1.8	11	3.9	97	34.6	167	59.6	4.52	.661
The difficulty of accounting standards leads to a higher rate of academic stress and anxiety	0	0	5	1.8	11	3.9	127	45.4	137	48.9	4.41	.656
Overall Total											4.454	0.749

Source: Field Survey Report, 2025

Table 4 reveals that most respondents (61.8% SA and 34.6% agree) believe that the complex accounting standards make the course materials difficult to understand, as indicated by the high mean (4.55). A large percentage (68.9% SA, 25.7% agree) holds the view that attempts to understand intricate standards influence their study schedules, resulting in the highest mean of 4.58. Although most (46.8% SA, 36.8% agree) believe that complexity is a skill that enhances their critical thinking, the average score (4.21) is lower than that of the other constructs, and the standard deviation (0.945) is higher, indicating a varied opinion. Most participants (59.6% SA, 34.6% agree) believe that complicated accounting standards are one of the obstacles to achieving high grades, as indicated by an average score of 4.52. Most people (48.9% SA, 45.4% agree) say that they are stressed and anxious because of these standards (academic), and the mean score is 4.41. A mean of 4.454 and an SD of 0.749 suggest a high level of agreement on the issues surrounding complex accounting standards, as the means across all constructs are high. The feedback on critical thinking and problem-solving skills, however, is rather positive, which reveals a two-sided view of their effects.

Table 5: Low Self-Efficacy Scale

Constructs	SD		D		N		A		SA		Mean	SD
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Stat.	Stat.
I find it difficult to concentrate on my studies due to constant worrying about failing	0	0	0	0	5	1.8	158	56.4	117	41.8	4.40	.526
My mind often goes blank when I try to recall information during exams	0	0	0	0	21	7.5	138	49.3	121	43.2	4.36	.617
I tend to forget things I've studied when I start feeling anxious about an upcoming test	5	1.8	31	11.1	36	12.9	97	34.6	111	39.6	3.99	1.064
My academic performance suffers because I focus more on my anxiety than the actual content	0	0	5	1.8	32	11.4	117	41.8	126	45.0	4.30	.740
I often feel overwhelmed by the amount of material I need to study before exams	0	0	0	0	27	9.6	108	38.6	145	51.8	4.42	.662
Overall Total											4.294	0.721

Source: Field Survey Report, 2025

Table 5 presents the descriptive statistics of respondents' low self-efficacy based on its influence on academic performance. Most respondents (41.8%) are in strong agreement or agree (56.4%) with this statement, which has a high mean score of 4.40 (SD = 0.526), indicating that many people struggle to concentrate due to low self-efficacy. Likewise, most respondents (49.3% or 43.2%, SD = 4.36, p = .617) agree or strongly agree. This is an underlying problem with recalling during exams. I am more inclined to forget what I have studied when I begin to feel anxious about an upcoming test. There is an agreement at the following levels: SA (39.6%) and agree (34.6%). Responses to neutral (12.9%), disagreement (13%), and neutral (12.9%) are marginally more prevalent, with a mean of 3.99 (SD = 1.064) and greater variation. This affects my performance in school, as I am too concerned with my anxiety as opposed to the content. The level of agreement is high, with 45.0% agreeing and 41.8% strongly agreeing, yielding a mean of 4.30 (SD = 0.74). This highlights the negative influence of anxiety on education. Most respondents have a strong agree (51.8%) or agree (38.6%) response to this statement, which indicates a mean score of 4.42 (SD = 0.662). This suggests that the experience of feeling overwhelmed is generally prevalent.

Table 6: Emotional response

Constructs	SD		D		N		A		SA		Mean	SD
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	Stat.	Stat.
I avoid certain academic tasks due to fear of failure	0	0	5	1.8	31	11.1	119	42.5	125	44.6	4.30	.735
I am constantly worried about meeting academic expectations set by myself	0	0	5	1.8	10	3.6	145	51.8	120	42.9	4.36	.640

I find it difficult to relax after receiving feedback or grades	5	1.8	5	1.8	15	5.4	124	44.3	131	46.8	4.40	.774
I worry about failing in my academic work even when I prepare well	137	48.9	133	47.5	10	3.6	0	0	0	0	1.55	.566
I often feel tense or restless when completing academic assignments	122	43.6	143	51.1	15	5.4	0	0	0	0	1.62	.587
Overall Total											3.246	0.660

Source: Field Survey Report, 2025

Table 6 is the analysis of the structural validity of emotional response. The analysis has interpreted the statistics with reference to the reported standard deviations, means and pattern of agreement. Most respondents reported fear of failure (Agreement: 42.5%; SAd: 44.6%). The mean is high, and the standard deviation is low, indicating consistent responses. The high mean indicates that most respondents are very concerned with self-imposed expectations (51.8% Agreed, 42.9% Somewhat Agreed). The standard deviation is low, indicating consistency in the levels of worry. There was a high level of agreement on the difficulty of relaxation after feedback was raised (44.3% Agreed, 46.8% SAd), and the mean followed this pattern. The standard deviation is a bit high, but it still represents a concentrated response pattern. Skewed responses toward the disagree side (48.9% Strongly Disagree, 47.5% Disagree), indicating that most of the respondents are not worrying too much when prepared. This tendency is indicated by the low mean, whereas the strong agreement between respondents is indicated by the low standard deviation. The responses were once again biased, with disagreement (43.6% Strongly Disagree, 51.1% Disagree), indicating that tension or restlessness is not a widespread challenge. This is in line with the low mean and the low standard deviation, which indicate uniformity of responses.

Table 7 Poor Study Habits

Constructs	SD		D		N		A		SA		Mean	SD
	Fr	%	Fr	%	Fr	%	Fr	%	Fr	%		
My fear of being judged by peers during presentations negatively influences my ability to do well academically	0	0	35	12.5	48	17.1	129	46.1	68	24.3	3.82	.941
I avoid participating in group discussions or activities due to anxiety, which reduces my learning opportunities	0	0	7	2.5	48	17.1	149	53.2	76	27.1	4.05	.736
I frequently skip classes or school events because of anxiety about social interactions, which affects my academic results	7	2.5	14	5.0	48	17.1	135	48.2	76	27.1	3.93	.930
I often feel overwhelmed by group assignments due to the pressure of interacting with my classmates	0	0	18	6.4	51	18.2	117	41.8	94	33.6	4.02	.882
Social situations at school (e.g., public speaking or presentations) cause me to underperform academically	7	2.5	25	8.9	54	19.3	125	44.6	69	24.6	3.80	.992
Overall Total											3.924	0.896

The descriptive analysis of the given data on Poor study habits constructs is presented in Table 7, which shows that a significant percentage of respondents (46.1%) agreed or SAd (24.3%) that fear of judgment negatively influences their academic performance. A smaller percentage were neutral (17.1), and none strongly disagreed. The majority (53.2%) or strong majority (27.1%) of the respondents agreed that anxiety causes avoiding group discussion, which resulted in less learning. This item is the most agreed upon with the highest mean, therefore. Many respondents (48.2%) or SAd (27.1%) reported that poor study habits during interactions led them to miss classes/events, which, in turn, influenced their performance. There was a low percentage of strongly disagree (2.5) and disagree (5.0). Most of them (41.8% and 33.6%, respectively) agreed that group assignments are overwhelming due to the pressure to interact. Only 6.4 per cent disagreed with this statement. A considerable percentage (44.6%) or a considerable percentage (24.6%) said that there were social situations, like speaking in public, that result in academic underperformance. The lower percentage (8.9%) and the strongly disagree (2.5%) responses were in disagreement.

Overall Measurement Model

Following an evaluation of the measurement model's validity, the researcher proceeded to test the hypothesised association using SmartPLS 4.0 PLS algorithm and the Bootstrapping technique. This was done in two versions. The first version included six (6) components in the study framework for this stage: CAS= Complex Accounting Standards, LSE= Low Self-Efficacy, ER = Emotional Response, PSH= Poor Study Habit, SFA= Strategies to Alleviate FA, SAP= Students' Academic Performance.

The structural model indicates that approximately 49% of the variance in students' academic performance is explained by complex accounting standards, low self-efficacy, emotional response, and poor study habits. Among these predictors, poor study habits exhibited the strongest positive relationship with academic performance ($\beta = 0.698$), suggesting a possible reverse or mis-specified construct that warrants further examination. Complex accounting standards ($\beta = -0.065$) and low self-efficacy ($\beta = -0.065$) exhibited weak negative effects, indicating that both factors have a slight detrimental impact on performance. In contrast, emotional response had no direct influence ($\beta = 0.000$). Students' academic performance also negatively influenced Strategies to alleviate failure anxiety ($\beta = -0.333$), accounting for 11% of its variance, indicating that high-performing students rely less on coping strategies. Overall, the model demonstrates moderate explanatory power, but conceptual refinement, particularly regarding the directionality of poor study habits and the weak outer loadings, is recommended for improved validity. However, factor loadings below 0.70 may need to be reassessed to better align with their constructs. Therefore, future research should increase the sample size to enhance data variability and explore other methods, like EFA and CFA, to refine the scale and improve its validity. Additionally, it should be a priority in later analysis to ensure that the multicollinearity is checked, and that any measurement error is rectified.

Table 8. Summary of the Findings

S/N	Hypotheses	Coefficient Value	Sig. value	Decision	Decision Alternative
H ₀₁	Complex accounting standards have no significant influence on the academic performance of business education students at Kwara State CoE.	R ² = 0.126	P=0.001 < 0.05	Rejected	A positive but weak effect; the complexity of accounting standards has a slight influence on performance.
H ₀₂	Low self-efficacy has no significant effect on academic performance among business education students in Kwara State CoE	R ² =0.001	P=0.965 > 0.05	Accepted	Low self-efficacy marginally reduces performance
H ₀₃	Emotional response has no significant influence on academic performance among business education students in KS CoE	R ² = 0.004	P=0.000 < 0.05	Rejected	Emotional response directly influences performance.

H ₀₄	Poor study habits have no significant influence on academic performance among business education students at KS CoE.	R ² =0.019	P=0.001 < 0.05	Rejected	Poor study habit has a significant influence on academic performance
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Source: Field Survey Report, 2025

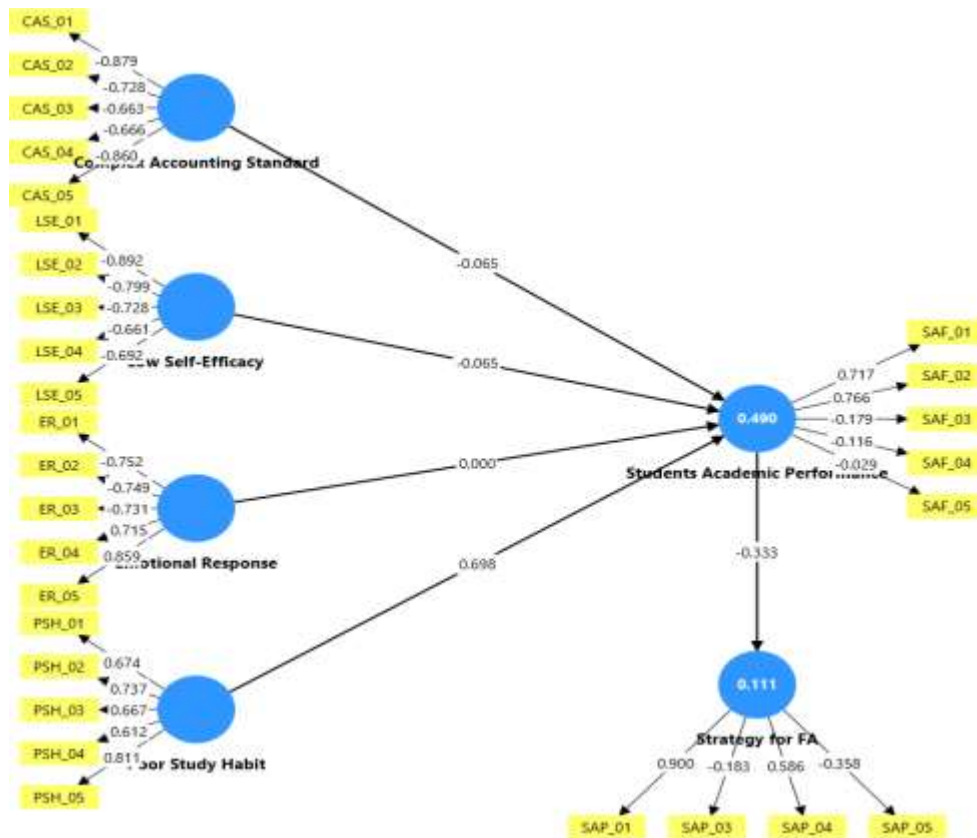


Fig. 4: Overall Measurement Model

Source: PLS-SEM Output, 2025

The findings have shown that there are low levels of correlations between academic performance and the CAS (Cognitive-Affective-Social) variables, and the only significant relationship is CAS 04 ($r = -0.126$, $p < .05$). Although the anxiety mitigation procedures found in the study can have a small but statistically significant effect on student attendance and performance, the relationship between them is low, and the overall effect on performance is low. Past studies, such as that of Feng et al. (2025), have shown that students often struggle to grasp and apply complex academic standards, leading to lower levels of understanding and performance. In the same vein, Shenoy et al. (2024) discovered that the technicality of language and the procedural conditions of accounting hindered deep learning and conceptual understanding. It is worth noting that the weak positive correlation between low self-efficacy (predictor variable) and academic performance (dependent variable) ($R = 0.031$) indicates that low self-efficacy has nearly no influence on student engagement and performance. The scores of R^2 contain 0.001 with a significant p-value ($p = 0.965$), which indicates the absence of a statistically significant effect of low self-efficacy on student performance that is consistent with previous results by Fennig et al. (2025) and Ghasemi (2022),

who also reported that low self-efficacy usually correlates with low academic performance. Given such poor correlations, the same result must be taken with a grain of salt, and subsequent research should examine whether unmeasured variables affect self-efficacy and academic achievement.

In the same manner, the correlation between emotional response and academic performance ($R = 0.063$) is very low, and $R^2 (0.004)$ indicates that predictors of emotional response explain only 0.4 per cent of academic performance, with the p-value being non-significant ($p = 0.778$). It has been theorised that students who feel emotionally distressed might be unable to perform well on high-stakes tests (Aydin & Ozgeldi, 2024), but the poor results of the current study highlight the need to examine the interaction between emotional regulation and other student-related variables, including motivation and coping styles. The correlation between poor study habits and poor academic performance ($R = 0.137$) is not significant ($p = 0.153$), and the R^2 is 0.019, which means that poor study habits account for only 1.9 per cent of the variation in academic performance. Whereas the poor study habits predictors conceptualisation is consistent with the possible effects on academic performance, as was hypothesised by Dom et al. (2025) and Sandra et al. (2025), the poor statistical relationship indicates that the poor study habits predictors may not have the expected significant influence on the academic performance. The results align with the study by Okay-Somerville et al. (2022), who found that poor study habits may negatively affect participation in classroom discussions and reduce the likelihood of academic growth. But the conflicting beta value for a positive correlation between bad study habits and academic results raises concerns about measurement or coding errors. The authors ought to be critical of this anomaly, as the findings contain contradictions that cannot be dismissed as mere anomalies.

Study's Limitations and Suggestions for Further Studies

Although the TPB and Walberg's theory were presented in the literature review, they were not fully applied in the interpretation of the results. These theoretical frameworks could be better integrated into the discussion, especially in explaining how attitudes, perceived control, emotional control, and learning environments influence accounting performance. TPB, especially, might provide useful information on the role of intention and perceived control of behaviour in students' academic performance within the study's framework. Besides, the research results are insufficient to explain the institutional and cultural forces that could mediate relationships among the variables in the Nigerian CoE setting. Educational infrastructure, instructional methods, and cultural values related to academic accomplishment may be very important in determining student performance. These moderators should be examined further in future studies to provide a more detailed picture of the impact of these contextual factors on student outcomes in Nigerian educational institutions. Other limitations: the sample size was calculated using a rigorous formula; convenience sampling may be biased and may not accurately reflect the diverse student population in CoEs in Nigeria. The data used in the study were collected via a questionnaire distributed via Google Forms. This can lead to response bias, such as social desirability bias, in which students give answers they believe are acceptable within society rather than what they experience. It was specifically the financial accounting anxiety that was subject to the study. Although it is a critical area, the results might not be relevant to other academic fields and studies in Nigerian CoEs. The study did not provide a profound exploration of the aspects of the institution (policies and infrastructure) or the institutional reforms of the wider education system, which could be the causes of the anxiety and performance of students. As a result, future studies may adopt a qualitative approach using in-depth interviews, or a focus group session may be a more in-depth study of students' personal experiences with financial accounting anxiety and the reasons for it. To enhance the generalisability of the findings, a larger sample of Nigerian CoEs across various states should be considered in the future. Shortcomings in institutional policies and resources should be targeted to develop more holistic solutions. Future studies can examine the role of technological aids, such as accounting software and e-learning tools, in alleviating financial accounting anxiety.

CONCLUSION

This study found a strong relationship between financial accounting anxiety (FAA) and academic performance, focusing on the cognitive and emotional aspects of student performance in financial accounting courses. It was evident that complex accounting standards introduce significant cognitive load for students, which, combined with FAA, creates barriers to their understanding and critical engagement with the materials. It was equally uncovered that poor self-efficacy, anxiety, and negative thought patterns that are caused by the anxiety brought about by complex accounting principles further compromise the concentration and performance of students. Moreover, FAA evokes emotional responses, including discomfort and fear, which consequently undermine students' confidence and lead to avoidance behaviour (unwillingness to participate in classroom discussions, group projects, and presentations). These evasion patterns have been cited as major impediments to the acquisition of critical learning skills in accounting. Also, the fear of being judged could lead to poor study habits that increase the adverse self-impact of FAA, and there is a cycle of disengagement and low academic success. The lack of opportunities in the active learning environment, which are crucial elements in accounting education, restricts students' ability to test and put the information into practice. These results indicate an urgent need to reevaluate how financial accounting is taught in educational institutions, especially by minimising the cognitive load and considering the emotional issues faced by students as applied to FAA. The synthesis of the study's understanding recommends the following for relevant colleges' stakeholders:

- a) Facilitators consider dividing the content into small, easy-to-manage modules to reduce the cognitive burden of complex accounting standards. This is possible by using examples, case studies, and visual aids that help students make solid links between abstract concepts.
- b) The mentorship programmes (peer mentoring or mentoring first-year students by upper-level students) can be strengthened by incorporating alumni and faculty as mentors, providing students with external guidance and support in coping with FAA by sharing personal strategies for success.
- c) Since FAA has emotional implications on the learning outcomes of the students, it is appropriate that institutions should include the use of customised psychological services to overcome academic-related anxieties. The psychological counselling services must be aimed at coping strategies to deal with stress and emotional resilience, as well as negative self-talk.
- d) The college's stakeholders should use inclusive methods of teaching to overcome the fear of being judged and make students feel unwilling to participate. It might be done through an open-door policy, anonymous submission of questions, and a teaching approach that invites and allows questions and other forms of participation without fear of criticism.

REFERENCES

- Acampora, A., Lucchetti, M. C., Merli, R., & Ali, F. (2022). The theoretical development and research methodology in green hotels research: A systematic literature review. *Journal of Hospitality and Tourism Management*, 51, 512-528.
- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organisational Behaviour and Human Decision Processes*, 50, 179-211. [http://dx.doi.org/10.1016/0749-5978\(91\)90020-T](http://dx.doi.org/10.1016/0749-5978(91)90020-T)
- Aliyu, M.O. (2024). *Behavioural Impediments in Realising Decent Academic Citizenship: Evidence from Nigeria's Higher Education Sector*. In: Iwu, C.G. (eds) *Academic Citizenship in African Higher Education*. Palgrave Macmillan, Cham. pp 109–128. https://doi.org/10.1007/978-3-031-63957-9_6
- Asare, P. Y. (2025). Cognitive strain and performance reflection: Unpacking Financial Management-induced test anxiety across educational programmes, age, and gender. *The International Journal of Management Education*, 23(2), 101162.

- Aydın, U., & Özgeldi, M. (2024). What's metacognition got to do with the relationship between test anxiety and mathematics achievement? *European Journal of Psychology of Education - EJPE (Springer Science & Business Media B.V.)*, 39(3), 2509-2529. <https://doi.org/10.1007/s10212-024-00797-7>
- Boamah, S., Asemani, E., Koranteng, E. K., & Mensah, R. O. (2025). Effect of cognitive-communicative model on senior high school students' proficiency in solving algebraic word problems. *Discover Education*, 4(1), 1-29. <https://doi.org/10.1007/s44217-025-00619-y>
- Brelsford, G. M., & Doheny, K. K. (2022). Parents' spiritual struggles and stress: Associations with mental health and cognitive well-being following a neonatal intensive care unit experience. *Psychology of Religion and Spirituality*, 14(1), 119-127. <https://doi.org/10.1037/rel0000381>
- Callimaci, A., Fortin, A., Lux, G., Caron, M. A., & Smaili, N. (2024). Academic and non-academic factors explaining anxiety among accounting students: evidence from the COVID-19 pandemic. *Accounting Education*, 33(5), 574-603.
- Dolezal, M. L., Decker, M., Higgins, M., & Littleton, H. (2025). Evaluation of the gender minority stress model in transgender and gender diverse college students. *Psychology of Sexual Orientation and Gender Diversity*, 12(2), 348-358. <https://doi.org/10.1037/sgd0000669>
- Dom, C., Bernard, A., Raymon, H., & Mark, T. (2025). Alleviating Statistics Anxiety in Psychology: Learner and Educator Viewpoints Understood Using Brookfield's Reflective Model. *Psychology Teaching Review*, 31(2), 82-97. <https://research.ebsco.com/linkprocessor/plink?id=0f1063e5-dff5-3aa5-96f3-810416889fae>
- Doz, E., Cuder, A., Pellizzoni, S., & Passolunghi, M. C. (2025). Comparing cognitive and emotional-motivational interventions to enhance word problem-solving skills in primary school: A randomized controlled study. *Journal of Educational Psychology*. <https://doi.org/10.1037/edu0000994>
- Dubey, U. K. B., & Kothari, D. P. (2022). *Research methodology: Techniques and trends*. Chapman and Hall/CRC.
- Feng, C., Jihe, C., & Yanying, X. (2025). The More Anxious, the More Dependent? The Impact of Math Anxiety on AI-Assisted Problem-Solving. *Psychology in the Schools*, 62(8), 2685-2701. <https://doi.org/10.1002/pits.23500>
- Fennig, M., Shorer, M., Snir, A., Harlev, E. B., & Fennig, S. (2025). The adaptation of psychological first aid for children released from war captivity (PFA-CC): A qualitative evaluation. *Child Abuse & Neglect*, 163, N.PAG-N.PAG. <https://doi.org/10.1016/j.chiabu.2025.107342>
- Fergus, S., & Petrick Smith, C. (2022). Characteristics of Proficiency-Based Learning and Their Impacts on Math Anxiety in the Middle Grades. *Research in Middle Level Education Online*, 45(4), 1-19. <https://doi.org/10.1080/19404476.2022.2045810>
- Fisher, D. G., Hageman, A. M., & West, A. N. (2024). Academic burnout among accounting majors: the roles of self-compassion, test anxiety, and maladaptive perfectionism. *Accounting Education*, 33(6), 791-815. <https://doi.org/10.1080/09639284.2023.2257672>
- Ghasemi, F. (2022). An Adlerian-Based Empowering Intervention Program With Burned-Out Teachers. *Journal of Education*, 202(4), 355-364. <https://doi.org/10.1177/0022057421998331>
- Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019) When to Use and How to Report the Results of PLS-SEM. *European Business Review*, 31, 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hamid, Y., Ibrahim, M., Noordin, N., Rahman, R. A., Anwar, I. S. K., & Rohani, S. R. S. (2024). Do Academic Performance, Gender and Financial Difficulties Influence the Depression Level Among the Undergraduate Accounting Students in Malaysia?. In *Conference On Accounting And Business*

(ICAB2024) (p. 191).

- Hlay, J. K., Johnson, B. N., & Levy, K. N. (2023). Attachment security predicts tend-and-befriend behaviors: A replication. *Evolutionary Behavioral Sciences*, 17(2), 103-122. <https://doi.org/10.1037/ebs0000284>
- Islam, M. A., Barna, S. D., & Safiuddin, M. (2020). Anxiety and academic performance among university students during COVID-19 pandemic. *Frontiers in Psychology*, 11, 585298.
- Jansen, E. P., & De Villiers, R. (2024). Factors affecting first-year students' performance in accounting at a South African university: A case study. *Accounting Education*, 24(5), 367-384.
- Klee, H. L., Buehl, M. M., & Miller, A. D. (2022). Strategies for alleviating students' math anxiety: Control-value theory in practice. *Theory Into Practice*, 61(1), 49-61. <https://doi.org/10.1080/00405841.2021.1932157>
- Li, W., Chon, C. & Wang, J. (2022). The effects of financial anxiety on academic performance: The moderating role of social support. *Journal of Educational Research*, 115(4), 328-337.
- Lloyd, C. E. M., Cathcart, J., & Panagopoulos, M. C. (2025). Accounting for the demonic: Helpful and unhelpful factors associated with belief in demonic etiologies of mental illness among evangelical christians. *Spirituality in Clinical Practice*, 12(3), 366-384. <https://doi.org/10.1037/scp0000354>
- Lv, Y. (2022). Research On The Improvement Countermeasures Of Teachers'teaching Anxiety In Accounting Teaching Under The Background Of Financial Sharing. *Psychiatria Danubina*, 34(suppl 2), 462-462.
- McNaughton, N. (2018). The Anxiolytic Effects of Financial Planning on Accounting Students. *Journal of Behavioural Finance*, 19(4), 317-326.
- Mohzana, M. (2024). The Influence of the New Student Orientation Program on the Adaptation Process and Academic Performance. *International Journal of Educational Narratives*, 2(2), 169-178.
- Mowen, J. C., Hansen, D. R., & Heitger, D. L. (2018). *Cornerstones of managerial accounting*. Cengage Learning.
- Namkung, J. M., Goodrich, J. M., & Lee, K. (2023). The factor structure of mathematics anxiety and its relation to gender and mathematics performance. *Psychology in the Schools*, 60(11), 4740-4757. <https://doi.org/10.1002/pits.23016>
- Nayak, J. K., & Singh, P. (2021). *Fundamentals of research methodology problems and prospects*. SSDN Publishers & Distributors.
- NUC, (2023). Core Curriculum and Minimum Academic Standards (CCMAS): Education. Abuja Ogunode, N. J., Olaoye, A. E., & Yakubu, I. (2023). Adequate Funding of Public Higher institutions and Effective Implementation of Core Curriculum and Minimum Academic Standards (CCMAS) in North-East, Nigeria Higher institutions. *Analytical Journal of Education and Development*, 3(3), 215-222
- Okay-Somerville, B., Allison, I., Luchinskaya, D., & Scholarios, D. (2022). Disentangling the Impact of Social Disadvantage on 'Becoming Employable': Evidence from STEM Student University-to-Work Transitions. *Studies in Higher Education*, 47(3), 545-559. <https://doi.org/10.1080/03075079.2020.1767052>
- Putwain, D. W., Woods, K. A., & Symes, W. (2020). Personal and situational predictors of test anxiety of students in post-compulsory education. *British Journal of Educational Psychology*, 80(1), 137-160. <https://doi.org/10.1348/000709909X466082>

- Qiangzhen, Z. (2025). English Learning Anxiety under Blended Learning Mode: A Quantitative Study of Non-English Major Undergraduates in a Chinese University. *European Journal of Psychology of Education*, 40(2). <https://doi.org/10.1007/s10212-025-00965-3>
- Sandra, B., Emmanuel, A., Emmanuel Kabutey, K., & Ronald Osei, M. (2025). Effect of Cognitive-Communicative Model on Senior High School Students' Proficiency in Solving Algebraic Word Problems. *Discover Education*, 4. <https://doi.org/10.1007/s44217-025-00619-y>
- Saunders, M., Lewis, P. and Thornhill, A. (2016). *Research Methods for Business Students*. 7th Edition, Pearson, Harlow
- Shenoy, R., Intiaz, C., Tiwari, S., & Krishnan, G. (2024). Design and development of a mixed reality application for aphasia rehabilitation: The ICMR-MiRAR project. *Technology & Disability*, 36(1/2), 1-15. <https://doi.org/10.3233/TAD-230008>
- Visser, L., Portal, L. & Law-van Wyk, S. (2021). The influence of the COVID-19 pandemic on students' anxiety and academic performance in South Africa. *South African Journal of Higher Education*, 35(3), 89-102.
- Walberg, H. J. (1992). A Structural Model of Science Achievement and Attitude: An Extension to High school. *Journal of Educational Psychology*, 84(1), 371-382. <https://doi.org/10.1037/0022-0663.84.3.371>
- Wang, M., Yang, M., Li, X., Li, J., Zhang, X., Zhang, Y., & Fan, X. (2025). The interplay between perceived stress, academic control, achievement motivation, and procrastination among nursing graduate students: A network analysis. *Nurse Education Today*, 154, N.PAG-N.PAG. <https://doi.org/10.1016/j.nedt.2025.106850>
- Wyk, M. V., & Swart, P. (2020). Accounting anxiety and its influence on student performance: A South African perspective. *Meditari Accountancy Research*, 28(4), 645-660.
- Yang, S., Yan, C., Li, J., Feng, Y., Hu, H., & Li, Y. (2024). The death education needs of patients with advanced cancer: a qualitative research. *BMC Palliative Care*, 23(1), 1-10. <https://doi.org/10.1186/s12904-024-01540-1>