UNIVERSITY OF CAPE COAST

ACADEMIC BUOYANCY, ACADEMIC MOTIVATION AND PERCEIVED TEST ANXIETY AMONG SENIOR HIGH SCHOOL STUDENTS IN EJISU MUNICIPALITY

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BY

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OCTOBER, 2023

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……..... Date…….....

Name: …….

Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of theses laid down by the University of Cape Coast.

Principal Supervisor' Signature……..... Date……....

Name: ……

ABSTRACT

The study investigated academic buoyancy, academic motivation and perceived test anxiety among students in the senior high schools in Ejisu Municipality. A descriptive survey research design was employed for the study. The sampled participants were 322. In order to gather data, the academic buoyancy scale, academic motivation scale, and test anxiety scale developed by Poisang, Vallerand et al., and Driscoll with Cronbach's alpha of .81, .78 and .89 respectively were all used. The data were analysed using Pearson Product Moment Correlation and Haye's mediation process model 4 in SPSS. All alpha levels were set at .05. The study findings revealed a significant negative relationship between academic buoyancy and perceived test anxiety, a positive relationship between academic buoyancy and academic motivation and significant negative relationship between academic motivation and perceived test anxiety. Finally, the findings revealed that academic motivation does not mediate the relationship between academic buoyancy and perceived test anxiety among the students in Ejisu Municipality. Nevertheless, academic buoyancy and academic motivation play a role in predicting test anxiety among high school students. The study therefore recommended that educators should instigate factors that will increase students' ability to deal with academic setbacks, as it will increase their drive to overcome test anxiety.

ACKNOWLEDGEMENTS

My sincere gratitude goes to Dr. Vera Arhin, who has been my principal supervisor for this work. Her expert advice has helped to bring this thesis to a successful completion. Additionally, I would like to thank Mr. Kyei Anane Ampofo and Mr. Frank Asiamah for their help. I also give thanks to the participants from various schools who responded to the questionnaire; without them, this thesis would not have been completed.

DEDICATION

To my family: Rosemary Tetteh (wife), Deron Kwasi Asiamah and Reforce Paakwasi Asiamah.

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CHAPTER ONE

INTRODUCTION

Anxiety has been reported to be present in most educational institutions (Ofqual, 2020; Yasar, & Turgut, 2020; Lotz & Sparfeldt,2017; Joe, Hiver & Al-Hoorie, 2017; Ferdous, 2012). Several studies have confirmed that test anxiety has been a phenomenon that has thrown academic challenges at many students across the globe (Putwain, 2019; Anane, 2013; Alemu & Feyssa, 2020; Asare, 2021). There is evidence that test anxiety lowers students' test scores and consequently leads to low academic performance. Thus, students' test scores, and for that matter, academic performance, have been found in the literature to be negatively related to test anxiety (Putwain, 2019; Anane, 2013; Alemu & Feyssa, 2020; Ironsi, 2020). Authorities have implemented interventions and policies in reaction to the findings of these studies (Wang & Rashid, 2021; Ofqual, 2020). For example, in Ghana, the school mock examinations written by final year students are meant to prepare and familiarise them with final examination to prevent anxiety.

Despite all the efforts by school authorities to reduce test anxiety, it seems to interfere with student's psychological dispositions during examinations, as it reflects in their performance. It has therefore become necessary to further look into other factors that may relate to test anxiety, as research conducted on it focused mostly on academic performance (Putwain, 2019; Anane, 2013). Research into high school students' academic buoyancy, academic motivation, and test anxiety will provide insight to educational stakeholders and researchers on other factors apart from academic performances that may relate to test anxiety.

Background to the Study

Test anxiety is a prevalent challenge across various educational institutions, as highlighted by Zhang and Henderson (2019), Rahafar, Maghsudloo, Farhangnia, Vollmer and Randler (2016), Abdollahi, Carlbring, Vaez and Ghahfarokhi, (2018), Asare (2021). Scholars have documented that over 15 percent of students experience test anxiety during examinations (Thomas, Cassady & Finch, 2018; Von der Embse, Jester, Roy & Post, 2018). Ironsi (2020) conducted a research study in Europe, specifically in Northern Cyprus, and discovered that test anxiety adversely impacts test performance. Similar findings have been reported by other researchers, including Putwain (2019), Anane (2013), and Alemu and Feyssa (2020). This has prompted global interventions, as noted by Wang and Rashid (2021) and Ofqual (2020).

Test anxiety refers to the emotions and behaviours exhibited by students who become anxious during test-taking periods. It arises when students perceive themselves as unable to handle the academic pressure associated with examination. This perception triggers a "threat response," resulting in feelings of anxiety (Saeidi & Khaliliaqdam, 2013; Elhouda & Soumia, 2021). This is particularly true when students lack confidence in their academic abilities and effective coping strategies. Physical symptoms of test anxiety include heightened alertness, tension, rapid heartbeat, muscle tension, headaches, and stomach issues (Ofqual, 2020).

Beyond the physical reactions, there is also a mental component to test anxiety. This often manifests as cognitive distraction, which can impair a person's ability to organise thoughts or focus on the task at hand (Lowe & Ang, 2012; Cipra & Muller-Hilke, 2019; Augner, 2015). Anxiety is triggered

by students' anticipations of the outcome before, during, and after tests, as well as by the perceptions of significant individuals like parents, teachers, and friends (Lowe & Ang, 2012). These anticipations can be expressed through spoken words, mental imagery, or physical signs. For instance, if students expect to perform poorly due to inadequate preparation, they will consistently react emotionally to that expectation.

Worry is directly related to the cognitive symptoms of test anxiety. Firstly, the cognitive aspect involves the perception of failure during assessment (Lowe & Ang, 2012; Amalu, 2017). Examples include thoughts like "I'm not ready for the examination," "I lack knowledge," "This test will be difficult," "I cannot accomplish this," or "I know I did not pass." The next cognitive aspect pertains to the social evaluation by others, such as how important individuals like parents, guardians, teachers, and friends will judge their performance (Lowe & Ang, 2012).

For decades, test anxiety has been a prominent concept in educational anxiety literature, with students experiencing anxiety during examination or assessment (Ironsi, 2020; Zinna & Thansuri, 2021; Anane, 2013). The pressure to excel and the availability of better grades may lead to unease about performance. Research consistently indicates that anxiety negatively affects test performance (Putwain, 2019; Anane, 2013). Test anxiety can compromise working memory, resulting in reduced test scores and academic performance. Recent theories suggest that educational institutions have developed strategies to mitigate anxiety during examination (Raijar, 2014; Nielsen & Harder, 2013; Dicristofaro, 2018), but challenges persist.

Studies have revealed a connection between test anxiety and personal factors like academic buoyancy and motivation (Martin, 2013; Martin & Yu, 2014; Aydin & Michou, 2019; Datu & Yang, 2021). Addressing these factors can help control and reduce test anxiety for improved academic success (Ofqual, 2020). Students often make personal assessments of their abilities, which influence their reactions to test-related anxiety.

Academic buoyancy, a trait related to resilience, helps students navigate academic obstacles, including test anxiety (Putwain, Connors, Symes & Douglas-Osborn, 2012). Martin (2013) suggested that academically buoyant students can overcome setbacks like test anxiety. Reduced test anxiety and improved academic performance are linked to positive beliefs, self-regulation strategies, and academic self-concept (Putwain, Daly, Chamberlain & Sadreddini, 2015). Increasing academic buoyancy can mitigate the effects of potential academic setbacks and ultimately reduce anxiety during examinations (Putwain et al., 2015).

According to research conducted by Putwain et al. in 2012, there is an inverse relationship between academic buoyancy and test anxiety. This suggests that students with higher academic buoyancy have a lesser tendency to experience test anxiety. The term "academic buoyancy" is a personal characteristic found in students, that enables them to effectively handle academic challenges such as test anxiety. This suggests that academic buoyancy is a key aspect of resilience, as it empowers students to remain engaged in academic activities and behaviours even when faced with persistent academic obstacles. Furthermore, such students strive to experience

reduced anxiety when confronted with tests, showcasing their ability to overcome challenges in their academic pursuits.

Martin's (2013) study revealed that students can overcome academic setbacks, like test anxiety, through academic buoyancy. Test anxiety is alleviated by a strong academic self-concept. This positive self-concept helps reduce test anxiety and leads to better academic outcomes (Putwain et al., 2015).

Academic buoyancy combats potential academic misfortune (Putwain et al., 2015), potentially mitigating the adverse effects of test anxiety. Buoyant students are likely to show lower test anxiety due to their positive academic attitude (Putwain et al., 2012). However, Martin (2013) and Putwian and Daly (2013) indicated that the relationship between buoyancy and anxiety is complex. Some students with mid to high levels of buoyancy experience low anxiety, while others with similar buoyancy levels experience higher anxiety. This suggests that buoyancy and anxiety can interact.

Based on the self-referent executive process (SREF) model, test anxiety involves various factors (Sanli, 2021; Ramirez, Shaw & Maloney, 2018; Sari, Bilek & Celik, (2018). Students with low performance beliefs or pessimistic views of failure are prone to high test anxiety (Putwain, 2019; Asare, 2021; Anane. 2013). Academic buoyancy counteracts these factors, reducing test anxiety and its negative consequences for examination results. However, different students may experience anxiety for distinct reasons. Some may have positive worries (Sideeg, 2015; Asare, 2021) unrelated to buoyancy. For these students, academic buoyancy could mitigate anxiety during examinations, enabling them to employ emotional self-regulation strategies

(Putwain et al., 2015). Academic buoyancy helps students navigate challenges, promoting academic success despite obstacles (Putwain, 2019). Moreover, perceiving the ability to overcome academic setbacks invokes a challenge reaction and thus motivates students academically.

Academic motivation, whether intrinsic or extrinsic, plays a pivotal role on test anxiety. Intrinsic motivation enhances critical thinking and memory, while extrinsic motivation driven by external rewards can impact behaviour and attitude which affect test anxiety (Balarabe, Bello & Yawa, 2021; Valerio, 2012; Joe, Hiver & Al-Hoorie, 2017; Acheampong, 2019). Intrinsic motivation can diminish test anxiety, particularly when focused on mastery. Conversely, motivation for grades can worsen anxiety (Putwain, 2012; Anane, 2013).

The interaction between motivation and test anxiety is intricate. While motivation boosts resilience and academic achievement, excessive focus on meeting external expectations may heighten anxiety (Putwain, 2019). Intrinsically motivated students often experience reduced anxiety (Von der Embse et al., 2018). In contrast, external academic motivation correlates with higher test anxiety. Motivation's role as a mediator between buoyancy, anxiety, and academic success is evident. Engaging in activities driven by personal zeal or important goals fosters effective problem-solving and resilience, but negative motivation may hinder recovery from academic setbacks. In this regard, academic buoyancy and motivation interplay with test anxiety which can impact students' performance and well-being.

Statement of the Problem

The West Africa Senior School Certificate Examination is a crucial academic milestone for students as it determines their eligibility for tertiary education. Meanwhile, recent statistics reveal consistently low performance in core subjects among senior high school students in Ejisu Municipality. For the past five years, performances among students in the core subjects have continued to fall. Percentage failure of students in English in 2017, 2018, 2019, 2020, and 2021 were 35%, 38%, 47%, 41% and 41%, respectively. Again, percentage failure of students in mathematics in 2017, 2018, 2019, 2020, and 2021 were 45%, 36%, 31%, 22% and 49% respectively. More so, percentage failure of students in science in 2017, 2018 2019, 2020, and 2021 were 26%, 43%, 32%, 40% and 37%, respectively. This trend has raised concerns among parents, educators, and students, as poor performance jeopardizes admission into higher education institutions.

Test anxiety is a potential factor influencing these outcomes (Putwain, 2019; Ofqual, 2020; Zhang & Henderson, 2019; Abdollahi et al., 2018; Joe et al., 2017) with previous research conducted in Europe and Asia highlighting its negative association with academic performance. While existing studies have predominantly treated test anxiety as an independent variable in relation to academic performance (Putwain, 2019; Ofqual, 2020; Abdollahi et al., 2018; Joe et al., 2017; Asadi, Hasanzadeh & Iri, 2021; Coca & Dadandi, 2019), this research intends to use test anxiety as a dependent variable to access how other psychological influences like academic motivation will mediate the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality of Ghana.

Purpose of the Study

This research sought to investigate academic buoyancy, academic motivation and perceived test anxiety among senior high school students in Ejisu Municipality.

Research Objectives

Specifically, the study sought to:

1. Examine the extent to which academic buoyancy relates to perceived test anxiety among senior high school students in Ejisu Municipality.
2. Examine the extent to which academic buoyancy relates to academic motivation among senior high school students in Ejisu Municipality.
3. Determine the extent to which academic motivation relates to perceived test anxiety among senior high school students in Ejisu Municipality.
4. Investigate the mediating effect of academic motivation in the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality.

Research Hypothesis

In order to find answers to the research objectives 1 to 3, the following hypotheses were formulated for the study.

1. $H_{0:}$ Academic buoyancy does not relate to perceived test anxiety among senior high school students in Ejisu Municipality.

   $H_{1:}$ Academic buoyancy relates to perceived test anxiety among senior high school students in Ejisu Municipality.
2. $H_{0:}$ Academic buoyancy does not relate to academic motivation among senior high school students in Ejisu Municipality.

$H_{1:}$ Academic buoyancy relates to academic motivation among senior high school students in Ejisu Municipality.

3. $H_{0:}$ Academic motivation does not relate to perceived test anxiety among senior high school students in Ejisu Municipality.

   $H_{1:}$ Academic motivation relates to perceived test anxiety among senior high school students in Ejisu Municipality.

Research Question

1. What is the mediating effect of academic motivation in the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality?

Significance of the Study

This study aims to shed light on the complex interplay between academic buoyancy, academic motivation, and perceived test anxiety among senior high school students in Ejisu Municipality. By investigating the predictive power of academic buoyancy and academic motivation on perceived test anxiety levels, the findings of this research intend to provide valuable insights for educators and policymakers to develop effective strategies to reduce test anxiety and enhance students' academic performance.

The findings of the study will assist the Education Service in Ghana as well as the Ministry of Education in formulating and implementing educational policies. Thus, the findings will assist educators in developing adequate and appropriate interventions for students who have higher test anxiety.

The study further proves useful to teachers or educators, as well as school counselors, to successfully deal with test-anxious students. Hence,

lessons on stress management could be delivered to students to reduce pressure during tests. The study, as such, tends to inform the provoking factors of test anxiety and ways to address them among the students.

Teachers will be further enlightened about the influence that academic motivation has on the academic buoyancy and test anxiety of students. This will help educators to factor motivation and academic buoyancy into dealing with student test anxiety. For example, teachers will come to appreciate that some students learn but are not able to recall during examinations.

Finally, the results of this study will broaden the crucial span of knowledge and investigation into the topic at hand. It will contribute to existing scholarship on the topic and instigate further research as well.

Delimitation of the Study

The study was delimited to only students who are in senior high schools located in Ejisu Municipality, found in the Ashanti Region of Ghana.

Furthermore, the work focused only on second year students, as third year students were preparing for their WASSCE and first year students were still in the process of becoming familiar with the school environment.

In addition, the study was delimited to concepts such as academic buoyancy, academic motivation, and perceived test anxiety but not academic performance.

More so, the study was delimited to only statistical tools such as Peason Product Moment Correlation and Haye's mediation process model 4.

Again, the study relied on a total sample size of 322 drawn from a population of 7051.

Limitation of the Study

This particular study is confined to only students who attend senior high school in Ejisu Municipality. Therefore, the weakness of this current study is to generalise it to all students. It is limited to quantitative approach, specifically the use of questionnaires. As such, biases from respondents may arise from the obtained responses, which may affect the tendency to make generalisations about the findings of the study.

Definition of Terms

Academic buoyancy: This is a reference to the ability of students to successfully navigate the challenges and impediments that characterise their academic quest. This could involve mediocre marks, conflicting deadlines, examination pressure, challenging coursework, and others.

Test Anxiety: Test anxiety is the physical and psychological response as a result of too much concern about the negative consequences that come from poor performance in evaluative test.

Academic Motivation: This involves the use of both intrinsic motivation and extrinsic motivation to increase students' desire to achieve something. Whereas intrinsic motivation is fulfilled by the inward satisfaction the student feels from doing a task, extrinsic motivation is, in most cases, controlled by external rewards and consequences.

Organisation of the Study

This work is written in five chapters. Thus, the first chapter begins with an introduction, followed by the background to the study. It comprises sections such as the statement of the problem, purpose of the study, research objectives, research hypothesis, significance of the study, delimitation,

limitations, and organisation of the study. When it comes to chapter two, it also entails a review of related literature to the study. These include the theoretical review, conceptual review, empirical review that relate to the area of interest and conceptual framework. The third chapter also focuses on the methodology that was used to do the study. It specifies the research design, the population that was used in the study, the sample, and the sampling procedure used. It also specifies the research instrument used for collecting data, how the instrument was pre-tested, data collection, and data analysis procedures. Chapter four is made up of the results and discussion. Chapter five, which is the last chapter, entails the summary, conclusions, recommendations, and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter consisted of a theoretical framework, conceptual review framework, empirical review and conceptual framework. The theoretical framework did deal with theories that explain academic buoyancy, academic motivation, and test anxiety. The conceptual review explains the concept of academic buoyancy, academic motivation and test anxiety. The empirical review section provided studies on academic buoyancy and test anxiety, academic buoyancy and academic motivation, as well as academic motivation and test anxiety. The mediation effect of academic motivation in the relationship between academic buoyancy and test anxiety was also empirically reviewed. The conceptual framework further presented a model that represents the relationships, that is, the mediation relationship between the independent variable, the mediation variable, and the dependent variable.

Theoretical Framework

Abraham Maslow and Albert Bandura's Motivational Theory of Needs, and Self-efficacy Theory respectively underpin this study.

Motivational Theory of Needs (Maslow, 1943)

The American psychologist, Abraham Maslow, is associated with the theory of needs (Taormina & Gao, 2013; Martin, 2021). According to him, every human being has five basic needs, which are arranged in order of importance in a hierarchy.

Figure 1: Maslow's presentation of how human needs have been arranged in a form of hierarchy

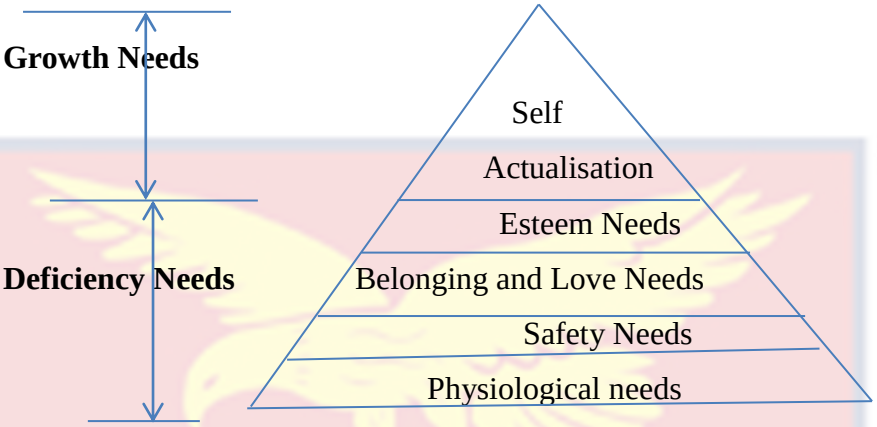


Figure 1: Maslow (1943) Hierarchy of Needs
Source: Macleod (2018)

Figure 1 explains the motivational theory of needs by Maslow (1943) in psychology. This comprises a five-level human needs model that is depicted in the form of a hierarchical pyramid. Concerning the hierarchy, the base to the top is made up of the following: physical, safety, affectionate or love, belonging needs, as well as esteem and self-actualization.

According to Maslow (1943), physiological needs are those that ensure the survival of the individual, which include food, shelter, air, etc. Students who lack this need will not get the required energy or motivation to face challenges in education, including test anxiety.

Second on the list of needs, according to Maslow, is safety needs, which to him are those needs that protect an individual from harm, for instance, order, security, stability, law, freedom from fear, anxiety, job security, etc. (Maslow, 1943). A feeling of being secure becomes the focus of satisfaction after the person has satisfied the physiological needs, which are no longer the basis of motivation (Acheampong, 2019). These students will be highly

motivated towards academic activities and will be academically buoyant toward test anxiety (Ofqual, 2020).

The third level on the hierarchy of human needs is affiliation or social needs, which involves the desire to be with others (Maslow, 1943). In most cases, social needs become important only when physiological and safety needs have been sufficiently met and fulfilled (Marcleod, 2020). This need psychologically affects students' academic motvation (Mcleod, 2018). Lack of this need may result in loneliness on the part of students, and this will negatively affect their ability to be motivated in education. These types of students are less motivated and less buoyant in solving academic problems, such as test anxiety.

Esteem needs include achievement, the need for dignity, the need for mastery, the need for independence, and the need for respect or reputation from people, including prestige, fame, and others (Maslow, 1943). Lack of this level of need is the consequence of a low level of motivation and buoyancy to overcome challenges in education Mcleod (2020) including test anxiety. The desire to acquire status as a lawyer, a nurse, a doctor, etc. increases students' motivation in terms of academics in order to attain these career goals. As a result, to achieve these career goals, they become buoyant in academic to persevere the obstacle of test anxiety.

Self-actualisation needs are the last level on the hierarchy. This is the realisation of self-fulfillment, individual capability, seeking individual growth, and peak experiences. That is, it is an aspiration to become everything one has the ability to become (Maslow, 1943). To be at this level of the hierarchy is

what will motivate a student to learn hard in academic pursuit to resolve academic obstacles such as test anxiety.

Maslow's (1943) theory is suitable and fit for this study since it captures human motivation from basic to high. It explains how students may be motivated to focus on how to get food rather than solving academic challenge like test anxiety. It also clarifies why students try as much as possible to satisfy his academic need despite many obstacles such as test anxiety. In addition, it seeks to explain buoyancy, as the fact that an individual with a deficit need will try to satisfy that need despite possible setbacks. In academia, an individual who is in need of achievement will also try as much as possible to overcome the obstacles in education, such as test anxiety. Therefore, the adoption of Maslow's (1943) theory of motivation is necessary, as its explanation is linked to many psychological variables, including academic buoyancy, academic motivation and test anxiety.

The human motivation theory by Maslow (1943) has been used by other researchers in different studies (Atingyena, 2012; Acheampong, 2019; Ayele, 2014). Atingyena (2012) indicated that Maslow's hierarchy of needs is important since individuals in any institution are motivated to perform with the desire to satisfy a set of internal needs. When they have desires, they are motivated to overshadow the challenges that come their way, which aids in reducing test anxiety.

Bandura (1977) Self-efficacy Theory

An American-Canadian psychologist called Albert Bandura coined the term "self-efficacy" in 1977. Bandura stated that self-efficacy is the way people believe in their competence to gain authority over the endeavours of

their own lives. A belief in one's own abilities can aid in obtaining the conditions necessary for motivation to overcome challenges. Thus, the belief in self-efficacy is a key factor in controlling human behavior, motivation and managing anxiety. Also, high self-efficacy has come with various importance to everyday lives, such as resilience to adversity and anxiety (Nie, Lau & Liau, 2011; Asare, 2021). The idea was first put forth by Bandura (1977) as a self-evaluation of one's ability to take the essential actions when handling possible crises. A person's set of beliefs, known as self-efficacy, determines how successfully they can follow out a plan of action in fictitious conditions. Self-efficacy, to put it simply, is a person's assurance in their capacity to succeed in a certain circumstance.

Thus, the social learning theory of Bandura (1977) provides explanations for the variation in the degree of effort students expect from school related tasks based on their self-beliefs (e.g., academic buoyancy and academic motivation). Two premises form the basis of Bandura's theory. One is that individuals interpret their past successes and failures personally and build their ambitions on these perceptions (Morony, Kleitman, Lee & Stankov, 2013). Bandura is of the view that people typically avoid circumstances that they feel are beyond their scope of competence, but they confidently take on and complete projects or activities that they believe they are capable of completing well. Most of the students who avoid things that exceed their capabilities most often lack courage and motivation to deal with challenges in education including test anxiety.

The second principle holds that individuals establish personal objectives that serve as their own standards for assessing their achievement

(McMullan, Jones & Lea, 2012). Goal attainment results in self-satisfaction, and making the required efforts to do so helps people avoid the unhappiness that comes from performing below expectations (Sanli, 2021). Bandura claims that internal rewards for reaching goals can be a more effective motivator for a specific work, than external benefits like praise or grades. Since internal reward is part of the individual, students with those attributes resiliently achieve what they are really satisfied with. They will not be afraid or anxious when taking tests because they enjoy academic events.

According to Bandura (1993), bigger goals, motivation, and a stronger dedication to accomplishing the goal are associated with stronger self-efficacy beliefs. When faced with challenging tasks, students who have low efficacy expectations (low self-perceptions of ability) are more quickly discouraged and put in less effort (Unal-Karaguven, 2015; Adewuyi, Taiwo & Olley, 2012). Students' outcomes and efficacy beliefs are linked to the ability to overcome setbacks as well as anxiety.

The self-efficacy theory of Bandura (1977) was adopted for this study because, looking at the definition, it tries to explain how a person's beliefs and confidence influence the extent of completing the task (for example, a test) successfully. Therefore, having confidence and belief in successfully completing a task or test means you are academically buoyant and motivated to do the test, which will decrease anxiety. Not being efficacious means, you may lack motivation and buoyancy to complete a school task such as a test, and this may lead to increased anxiety. Looking at the explanation of Bandura's self-efficacy theory and the study variables (academic buoyancy,

academic motivation, and test anxiety), there is a link between them; hence, the theory was appropriate for the study.

The self-efficacy theory of Bandura (1977) has been used by several researchers in different studies (Abdi, Bageri, Shogai, Goodarzi & Hosseinzadeh, 2012; Adewuyi et al., 2012; Sanli, 2021; Unal-Karaguven, 2015; Celik & Yildirim, 2019). Sanli (2021) noted, for instance, that students who feel that they possess more belief in their own ability are less anxious about tests. He therefore recommended that students be motivated in such a way that will increase their self-efficacy level to decrease anxiety, which has become a challenge in education. Unal-Karaguven (2015) indicated that self-efficacy controls one's internal motivation, feelings, and thoughts, and this influences their level of anxiety. Celik and Yildirim (2019) stated that anxiety in education is an unknown fear that results from a lack of motivation on the part of students.

However, positive self-efficacy can motivate students to accomplish difficult tasks. Students who possess a high level of self-efficacy see themselves as capable of completing any given piece of work and have faith in their own abilities (Bandura, 1993). Sanli (2021) argued that students might counteract the negative effect of examination by reflecting on their prior successes, which instills courage, motivation, and buoyancy and, as a result, raises their self-efficacy. That is, self-efficacy and motivation increase individual buoyancy levels to deal with obstacles such as test anxiety.

Conceptual Review

Academic Buoyancy Concept

Martin and Marsh (2008) have a conceptualisation of academic buoyancy. Academic buoyancy serves as an adaptive reaction to typical, transient, and common difficulties and failures in the educational environment. This is the ability of a student to handle present as well as future demands and obstacles by controlling and regulating behavior, emotions, and feelings in a constructive and adaptive way (Martin & Marsh, 2008; Martin, Yu, Ginns & Papworth, 2017).

According to Al-hoorie, Hiver and Yun (2018), Martin and Marsh (2008), proposed five motivational predictors: self-regulation, persistence, anxiety, planning, self-efficacy, and teacher-student connection that affect academic buoyancy. Self-regulation is defined as the deliberate individual management of motivation, thought, emotional state, and pattern of behavior required for effective achievement (Schunk & Zimmerman, 2012).

Considering the concept of buoyancy, a learner's perseverance is tied to the intrinsic value they place on the task at hand, which increases their propensity to engage in and maintain persistence during a particular task or activity (Martin, Ginns, Brackett, Malmberg & Hall, 2013). One of the components that is essential to learning is anxiety, which may be seen in most classroom settings. Morony et al., (2013) has made the statement that self-efficacy is how people have self-assurance in their capacity to be successful in their own activities.

According to Martin and Marsh (2020), the social component of teaching, frequently referred to as teachers' emotional support for their

students, is intricately connected to students' perceptions, actions, and results in the classroom. This relationship is related to buoyancy. They emphasised that buoyancy is pertinent to the issues and worries that people face on a daily basis because it threatens their confidence. These issues and worries appear to undermine learners' motivation, interest, and involvement in the learning process. Academic buoyancy is a notion that focuses on how students handle both the usual stressful learning situations as well as the inevitable ups and downs of daily academic life. Because of this, it can be used by a large portion of students in a variety of circumstances. (Martin et al., 2013).

Martin and Marsh (2008) established that academic buoyancy has a unique explanatory value for outcomes like work engagement, perseverance through difficulties, decreased test anxiety, and classroom participation in their follow-up research among senior high school students (Malmberg et al., 2013). Studies have demonstrated that academic buoyancy tends to reduce anxiety (Putwain & daly, 2013; Putwain et al., 2012; Putwain, Daly, Chamberlain & Sadreddini, 2016) which helps students adjust and perform efficiently. Martin (2013) extended his examination of academic buoyancy theory by claiming that empirical evidence has demonstrated that buoyancy mediates these elements in addition to the larger social context, including the teacher-student relationship, which allows students to turn adversity into an advantage.

According to Martin and Marsh (2008), while dealing with constructive feedback on one's work calls for buoyancy, school absences, dissatisfaction, and estrangement call for resilience. From a conceptual standpoint, they claim that buoyancy and resilience can be distinguished by

the level of motivation and engagement. Academic buoyancy is a more pro-active strategy for resolving common educational challenges before they worsen (Putwain, Nicholson & Kutuk, 2023). In order to address typical educational problems before they get worse, academic buoyancy adopts a more proactive strategy (Al-Hoorie et al., 2018). Putwain et al. (2023) believe that one's academic growth and success are characterised by buoyancy as the "frontline" and resilience as the "backline".

An increasing body of research demonstrates the link between academic buoyancy and attitudes, feelings, and actions that are thought to promote learning and academic success. It has been demonstrated that students who are buoyant in academic education are able to study seriously and effectively (Datu & Yang, 2018; Hirvonen, Yli-Kivisto, Putwain, Ahonen & Kiuru, 2019; Malmberg, Walls, Martin, Little & Lim, 2013; Martin, 2014). Again, more academically buoyant students are hardworking and coordinate to achieve their educational ambitions since they experience little anxiety. Meanwhile, less academically buoyant students are not hardworking, which makes it difficult for them to achieve their academic ambitions as they always feel anxious when taking tests (Putwain et al., 2012; Malmberg et al., 2013; Martin, 2013).

Academic Motivation Concept

In Psychology, there are many different ways to explain motivation in terms of conditions and behaviours (Bakari & Aisha, 2017). The beginning, direction, persistence, and intensity of an activity, especially behaviours that are goal-directed, are all described by the theoretical concept of motivation (Ryan & Deci, 2017). Gurland and Glowacky (2011) as well as Song, Bong,

Lee and Kim, (2015) noted that the term "motivation" is used in the context of the classroom to characterise the level of focus and effort students put forth in a range of pursuits, some of which may or may not be ones that teachers find desirable.

Motivation, according to Datu and Yang (2021), lies at the core of the educational process. They contend that sufficient motivation not only initiates the learning-related activity but also sustains and guides it. One of the most crucial components of learning, in the opinion of Ryan and Deci (2017), is motivation. However, they acknowledged that motivation is a result of a variety of circumstances. The characteristics of a particular learning assignment, the student's personality and aptitudes, learning incentives, environment, and instructor behaviour are among these variables.

The motivational theories of Deci and Ryan, as described by Gurland and Glowacky (2011), explain why people are motivated and how self-regulation is learned. They distinguished between engaging in an activity and actually experiencing it. They suggested that individuals who seem to possess equal motivation to perform an activity may have different perspectives on how that activity is carried out. They clarified that some people might engage in a particular activity out of genuine motivation. These people might participate in that activity just because it is enjoyable and interesting. According to Deci and Ryan (2017), these people value that activity highly for their own personal reasons.

In contrast, some people could feel forced to do something, either externally or internally. These people might engage in an action for the sake of benefits, outcomes, or other extrinsic factors. According to this theory,

motivation is measured by the degree to which people find an activity engaging, pleasurable, or personally valuable as opposed to being forced or coerced (Gurland & Glowacky, 2011).

Academic motivation is essential since it not only influences students' drive to be involved in academic activities but also determines how much knowledge they will get from those actions or the information they are exposed to. This idea is in line with the definition given by Guiffrida, Lynch, Wall and Abel (2013): people refer to a student's ambition, effort, and perseverance in relation to academic accomplishment as academic motivation. Similar to this, Gurland and Glowacky (2011) assert that academic motivation relates to internal mechanisms that underlie and support activities targeted at realizing specific academic objectives.

Ekeh and Njoku (2014) are of the view that the process of academic motivation is mostly internal and drives a person to set academic goals, make plans to achieve those goals, and work hard to make those goals a reality. According to Afzali and Aminhamatami (2018), academically motivated students use advanced cognitive processes to learn new material, ingest and retain more information from it, and are more likely to apply what they have learned to new circumstances. Koca and Dadandi (2019) have stated that students who do not have enough academic motivation show a lack of zeal for pursuing their academic objectives. Rajiah (2014) has a similar view that such students exhibit apathy and signs of indifference toward their studies.

Test anxiety Concept

As stated in the work of Ayhan et al. (2019), one of the debilitating elements that undermines students' motivation is test anxiety. Test anxiety is

the physical and psychological reaction to excessive worry about the negative outcomes of performing poorly on an evaluation test (Putwain et al., 2023; Odriscoll & McAleese, 2022). According to a study by Dawood et al. (2016) and Aydin, (2019), anxiety about tests has two facets, which are emotional and cognitive. The cognitive element of test anxiety directly affects students' outcomes in examinations, while the emotional aspect of test anxiety is related to but does not directly interfere with students' performance in a test.

It has been discovered that the word "worry," which was initially used to identify test anxiety, was insufficient to capture the complex class of cognitive processes (Sung, Chao & Tseng, 2016; Segool, Carlson, Goforth, Von Der Embse & Barterian, 2013). As a result, the dimension came to be characterised as "cognitive test anxiety." This cognitive part of test anxiety concerns the student's internal thoughts or cognitive responses to educational situations. According to Ofqual (2020), cognitive test anxiety develops when a person does any of the following: compares their performance to that of others; thinks about the consequences of failing; has lower levels of confidence; becomes excessively anxious about evaluations; upsets parents; and feels unprepared for a test.

Test anxiety is a relatively stable predisposition during examinations that has been found to interfere with students' performance (Maxwell & Ikechukwu, 2020). Certain factors have been found to influence test anxiety. For example, Ofqual (2020) identified parenting, gender and age as key factors that influence test anxiety. There is evidence to suggest that test anxiety among children and general feelings of school pressure rise with age (Klinger et al., 2015). Thanusri and Zinna (2021) hold the opinion that sources

of test anxiety arousal are not necessarily threatening situations but rather low self-efficacy in students.

Malespina and Singh (2021) asserted that the lack of student self-efficacy—which is necessary for turning off this arousal anxiety—was the cause of test anxiety arousal rather than a potentially dangerous occurrence. In this aspect, students may view an evaluative circumstance as a danger if they have lower levels of efficacy in themselves and as a challenge if they have higher levels of efficacy (Malespina & Singh, 2021).

Olusegun and Awuya (2021) claim that test anxiety has recently been regarded as one of the research fields. Our current age is one in which many people's lives are influenced by how well they perform on tests (Olusegun & Awuya, 2021). Subramani and Yenkatachalam (2019) also claim that one of the main problems preventing some students from achieving their potential in the classroom is exam stress. As stated by Salturk and Gungor (2020), students consistently believe that tests are causes of anxiety growth and that they are being unfairly forced to demonstrate their true performance.

Empirical Review

The study reviewed empirical literature based on the research objectives of the study.

Academic Buoyancy and Test Anxiety

It has been acknowledged in the literature that academic buoyancy plays a major part in the anxiety level of students, especially when it comes to taking tests. Several studies have confirmed the link between academic buoyancy and test anxiety. For example, an investigation by Thanusri and Zinna (2021) looked at the connection between students' academic buoyancy,

work engagement, and test anxiety in senior high schools in India. 120 males and 120 females from four school, 240 students in total, were employed in the study. The Academic Buoyancy Scale (ABS), the Westside Test Anxiety Scale, and the Utrecht Work Engagement Scale-Student (UWES) were all completed by participants. Academic buoyancy and test anxiety among the students were significantly negatively correlated, as per Pearson's product moment correlations.

Also, in Europe, Putwain,, Chamberlain and Sadreddini (2015) conducted research with the title “academically buoyant students are less anxious and perform better in high stakes examinations”. 705 secondary education students who were in their final year were used for the study. Two waves of student self-report data on test anxiety and academic buoyancy were collected. Test anxiety and academic buoyancy showed measurement invariance in both rounds of measurement. The findings suggested that test anxiety and academic buoyancy are inversely correlated. They came to the conclusion that academic buoyancy influences self-regulatory mechanisms, which reduce test anxiety and improve test performance by acting against the perception of examinations as threatening.

Putwain et al. (2016) conducted similar research to examine buoyancy and coping in the context of academic performance and cognitive test anxiety. The study looked into the connection between students' self-reported test anxiety levels, academic buoyancy, coping mechanisms, and the grades they received on high-stakes national exams at the end of their education. 325 high school students in England made up the samples. According to their research, strong academic buoyancy can reduce the negative effects of high anxiety and

low levels of uneasiness on test-taking techniques and examination scores. The study came to the conclusion that teaching students coping skills and how to handle academic stress in the classroom may help lessen the impact of performance-related anxiety and even improve students' performance. Their research findings are similar to the earlier one conducted. This might be due to the fact that both studies were conducted in Europe and, therefore, participants have similar characteristics.

Furthermore, through descriptive correlation, Asadi, Hasanzadeh and Iri (2021) investigated the correlation between academic buoyancy, anxiety about school, and social engagement among educated students in Tehran, Iran, using Mizan and traditional schooling methods. From normal and Mizan-guided discovery schools, samples of 606 students were chosen. Data collection tools included the School Anxiety Scale, Academic Buoyancy Scale, and School Bonding Questionnaire. To forecast the associations between variables, the structural equation modeling method and the Pearson correlation coefficient were both used. The findings suggested that anxiety over school and academic buoyancy had a negative relationship. In their conclusion, they emphasized the need to consider variables that link to anxiety associated with school, such as academic buoyancy and social involvement.

Threshold impacts on academic buoyancy with test anxiety on other variables have been replicated in many studies. For instance, Daly and Putwain (2013) did a study to find out whether test anxiety as well as academic buoyancy are distinct indicators of academic accomplishment. A Pearson-centered approach was adapted to test if students' test anxiety and academic buoyancy might be used to group them into a specific cluster and if

there is any variation in how well students perform in class. Cluster analysis was done with a sample of 469 senior secondary school students who were getting ready for a high stake's examination. There were five identifiable clusters. Three of the clusters correlated with three different levels of academic buoyancy: high test anxiety (low academic buoyancy), mid test anxiety (mid academic buoyancy), and low-test anxiety (high academic buoyancy). The final two clusters were made up of pupils with moderate to high test anxiety and moderate to high academic buoyancy. They discovered that students who were in groups with low test anxiety and high academic buoyancy performed better academically. Their research showed that students who are academically buoyant do well and experience less test anxiety. As a matter of fact, their findings demonstrated how academic buoyancy lowers danger perception in some students and suggests a performance protective effect in others.

The motivation, adaptability and buoyancy's impact on course satisfaction and test anxiety among the student population in the United Kingdom were all examined in Yanyan, Andrew, Daniel and Nicolas's (2021) study. An online survey evaluating adaptability, buoyancy, and motivation (predictor factors), as well as their happiness with their courses and test anxiety, was completed by 156 undergraduate students who were chosen for the study (outcome variables). The findings showed that academic buoyancy significantly predicted test anxiety but not course satisfaction. They also found out that academic desire and adaptability were both notable predictors of course satisfaction but not test anxiety. They made a recommendation to inform educational stakeholders that it is important to support students'

academic buoyancy, in order to manage their test anxiety for academic competence.

In another related study, Collie, Ginns, Martin, and Papworth (2017) did a study in Australia. The study's primary goal was to determine if academic buoyancy is mediated by the association between academic anxiety and students' usage of a range of learning strategies (memorisation, elaboration, and personal best goal). The sample consisted of 380 Australian high school students who could speak English and Chinese (Mandarin and Cantonese), in groups of 190 each. They discovered that academic buoyancy had mediation effects across all four learning techniques. In the mediation analysis, anxiety was also directly related to memorisation, elaboration, and personal best aspirations. They asserted that their results offer a useful starting point for future studies on the nomological network of academic buoyancy, the significance of home language in academic pursuits, and the conceptualization of mediations addressing academic buoyancy and academic anxiety.

Again, in a related study, Deng et al. (2021) investigated the association between academic self-efficacy and test anxiety through fundamental psychological phenomena like academic buoyancy and peer support. Surveys evaluating test anxiety, academic buoyancy, peer support, and academic self-efficacy were given to 560 Chinese high school students as a whole. Through academic buoyancy, structural equation modeling (SEM) revealed that academic self-efficacy indirectly influences test anxiety. Pointing to their findings, they claimed that high school students' positive psychological traits, including academic buoyancy and personal traits, were both protective factors against test anxiety.

Many fields of study have done research and found out how academic buoyancy affects test anxiety, putting into consideration the locus of academic buoyancy based on the fact that this psychological variable is conditioned by a number of factors. Martin (2014) suggested these factors are the components of academic buoyancy and named them the 5 Cs. It involves self-efficacy, self-regulation, control, composure, and commitment, and a recent development is the teacher-student relationship (Al-Hoorie et al., 2018).

Academic Buoyancy and Academic Motivation

It has been acknowledged by researchers that there is a link between academic buoyancy and motivation in general. For example, a study conducted by Aydin and Michou (2019) provides evidence. They used 267 students in Turkey to participate in the research. A prospective design was adopted for data collection. Students self-reported on the various scales, tested and the results showed that motivation in general predicts students' academic buoyancy.

If motivation in general is connected to academic buoyancy, then what type and specific motivation could influence academic buoyancy? Datu and Yang (2021) explored academic accomplishment, academic motivation, and academic buoyancy among high school students in the Philippines, assuming that academic motivation is related to and predicts academic buoyancy. In actuality, the study's goal was to investigate how academic accomplishment and academic motivational dimensions are related. Using a sample of 393 people, the impact of academic motivation on academic buoyancy was explored. The funding revealed that academic buoyancy was in connection with academic motivation.

It must be emphasised that, despite academic motivation being associated with academic buoyancy, it may relate to other variables at different levels. Martin and Yu (2014) revealed that differences exist in academic buoyancy and academic motivation when it comes to mastery goals and self-best goals. Consequently, using a sample size of 3753 middle school students in China, Martin and Yu (2014) investigated academic motivation, academic buoyancy, and engagement. Analysis of the student's self-report showed that self-best goals appeared more salient in mapping onto the academic buoyancy factor, whereas mastery goals appeared more significant in mapping onto academic motivation elements.

Academic Motivation and Test anxiety

Numerous studies have been conducted on test anxiety and academic motivation, rooted in the fact that academic motivation is linked to test anxiety. It encourages students to relax and perform well in tests. However, students' higher expectations and thoughts of perfection may result in increased anxiety.

In a study, 144 university pharmacy students in Malaysia were given the Westside Test Anxiety Scale, Kessler Psychological Distress Scale, and Academic Motivation Scale by Rajiah (2014). The findings revealed a strong inverse link between test anxiety and academic motivation. Additional findings showed that test anxiety substantially predicted academic motivation. They concluded that students who are test-anxious typically exhibit higher levels of psychological distress and lack motivation to study.

However, the research conducted by Karak and Zgan-A (2019) showed no connection between test anxiety and academic motivation. They conducted

a correlational study on test anxiety, academic motivation, and academic self-sufficiency. They assumed that test anxiety and academic motivation, as well as academic self-sufficiency, had less of a complimentary relationship. 150 people in all were chosen to participate in the study. It was shown that test anxiety and academic motivation are unrelated, contrary to what they had predicted.

Afzali and Aminhamatami (2018) also embarked on a study concerning academic motivation and test anxiety. With Cochran formula, 346 students were used as population and sampling. Sarason Test Anxiety Questionnaire, Zarang Educational Inventory and Hartler Motivation Questionnaire were adapted to gather information. Pearson correlation and multiple regression analysis revealed inward and outward academic motivation related to test anxiety. They assumed based on these outcomes of the study that academic motivation influences and predicts test anxiety and hence requires being taken into accounts in conducting test for educational purposes.

Koca and Dadandi (2019) gathered a sample of 387 high school students in Trabzon, Turkey, to evaluate the effects of test anxiety and academic motivation on the link between academic self-efficacy and academic accomplishment. Data was collected using the Academic Self-Efficacy Scale, Academic Motivation Scale, and Revised Test Anxiety Scale. The outcomes indicated that there is a numerically notable relationship between the study variables, including test anxiety and academic motivation.

Furthermore, Ayhan et al. (2019) did a study at Atilim University, in order to find out the correlation that exists between test anxiety, academic

motivation, and academic self sufficiency. It was assumed that there are negative relationships between test anxiety and academic motivation and between test anxiety and academic independence. A total of 150 participants, including 36 boys and 114 girls, were used in the study as a population sample. The academic motivation scale, test anxiety assessment, and academic self-sufficiency measure were administered to the participants. To test the hypothesis, the Pearson correlation coefficient between academic motivation, academic self-sufficiency, and test anxiety was computed. The results demonstrated that test anxiety and academic motivation did not correlate, going against the assumptions. Additionally, there was no connection between test anxiety and academic independence. They thus suggested that many departments look into test anxiety as a learning behaviour among high school students.

In addition, Balarabe et al. (2021) conducted a study. Their research examined the connections between test anxiety, academic motivation, and academic success among university students in Nigeria's north-west region. A correlational research design was used in the study. 378 participants were chosen at random from a level 300 student population at each of the three universities in the north-west zone. The Test Anxiety Inventory and the Academic Motivation Inventory were used to collect data. Utilizing descriptive (frequency, mean, and standard deviation) and inferential statistics, the data was processed and examined with Pearson Product Moment Correlation. At a significance threshold of 0.05, all tests were conducted. The outcomes revealed an inverse relationship that exists between test anxiety and academic motivation. From the outcomes, it was suggested that academic

motivation should be provided to students through support from parents, teachers, and peers. They also prompted the provision of functional psychological testing and counselling centres by school authorities to control and manage test anxiety with the assistance of trained psychologists and counsellors as it in turn has an inverse relationship with students' academic success. Also, they admonished students to perceive tests and examinations as a regular practice of academic pursuit and not something we cannot survive if we do not have, and we should not be too nervous about them.

Again, Unal-Karaguven (2015) conducted a study on demographic variables and communal mastery as indicators of academic motivation and test anxiety among Turkish high school students in order to understand the contributing factors of students' levels of test anxiety and academic motivation. According to the self-determination theory, this study was intended to examine the effects of demographic factors and communal mastery as indicators of academic motivation and test anxiety levels. A study group of 336 Turkish high school students served as the sample. A questionnaire, the Communal Mastery Scale, the Academic Motivation Scale, and the Test Anxiety Inventory were all employed. Anxiety about tests and academic motivation were predicted using hierarchical multiple regression and multiple correlation analysis. The study's hypotheses were partially supported by correlation analyses. Test anxiety and academic motivation were inversely related to reported academic successes, but communal mastery was positively associated with perceived academic achievements. Academic motivation and test anxiety were inversely related to gender, school type, parents' educational attainment, having siblings, owning a computer, and communal mastery. Test

anxiety and academic motivation were adversely correlated with perceived academic success. The results of several level analyses showed that communal mastery and demographic characteristics were important predictors of high school students' levels of test anxiety and academic motivation.

In order to have a comprehensive understanding, the author proposed that future research on test anxiety and academic motivation should look at a variety of elements in addition to demographic data and social capital. He also recommended that repeated attempts should therefore include teachers as well as pupils, populations, longitudinal designs, and suitable control groups. He again established that before establishing assumptions about other populations, it is crucial to repeat the process with different disciplines to determine the impact of various environments on students' academic motivation.

In another related research study, Celik and Yildrim (2019) aimed to explore the link between middle school students' examination anxiety levels, their academic expectations, stress levels, and their motivation levels to learn the material. 364 Turkish secondary school pupils in the 7th and 8th grades (184 females and 180 males) made up the study's sample. Data gathering tools included the Academic Expectations, Stress Inventory, Motivation to Study for Adolescence Scale, and Examination Anxiety Scale. Exam anxiety was selected as the dependent variable, whereas stress related to academic expectations and lesson motivation were chosen as the independent variables. The Pearson correlation coefficient was used to analyse the relationship between the variables. The relationship between the independent variables and the dependent variable was also tested using multiple regression analysis. According to their correlational study, there is a strong and positive correlation

between academic aspirations, self-expectations, motivation, and examination anxiety. As opposed to that, motivation to study was not in connection with examinational anxiety. They recommended that expectations from students should be realistic to prevent examination anxiety.

Furthermore, Ghadampour, Viskarami, and Kharaem, (2015) aimed to examine how motivational attitudes (such as self-efficacy, academic motivation, and test anxiety) affect the academic performances of middle school students in the Turkish province of Ardabil. 75 students were chosen at random for this study. Data were gathered using the general self-efficacy questionnaire by Scharer et al., the accomplishment motivation questionnaire (AMQ) by Hermans, and the Ahvaz test anxiety inventory. The average student grades from the previous semester were used as a measure of academic performance. Academic motivation indicators were identified by multivariate regression analysis. (P < .001), efficacy (P < .001), and test anxiety (P <. 05) are significant predictors of academic performance. Also, there was a significant correlation between self-efficacy, academic motivation, and test anxiety. They recommended that teachers and trainers should provide the right conditions for increasing academic motivation and self-efficacy in order to reduce test anxiety and students' learning behaviour.

Cheng et al. (2014) used Canadian Aademic English Language (CAEL), College English Test (CET), and the General English Proficiency Test (GEPT) in a study on motivation and test anxiety to test performance in three high-stakes language examinations: GEPT in Taiwan, the CET in the People's Republic of China, and the CAEL Assessment in Canada. The focus of this work was on test-takers' motivation, test anxiety, and performance

toward a target in social and educational settings. The researchers distributed a questionnaire to test-takers in each of the three settings, asking them questions about their motivation, test anxiety, and perceptions of the test's value and purpose. 1,281 valid questionnaire correspondences were obtained in total, with 255 coming from CAEL, 493 from CET, and 533 from GEPT. Each test-related taker's test performance was connected to questionnaire correspondences. The findings provided insight into the intricate interactions between test-takers' motivation and test anxiety and their performances. Variations in test anxiety and motivation were seen in relation to social factors (i.e., test importance to stakeholders and test purposes). Additionally, test performance was linked to personal factors (such as gender and age) as well as motivation and test anxiety.

Effect of Academic Motivation in the Relationship Between Academic Buoyancy and Test Anxiety

Although there are relatively scarce studies conducted in the area of how academic motivation mediates the relationship academic buoyancy and test anxiety which this study sought to add to literature, Wang and Rashid (2021) looked at the relationship between academic buoyancy and test anxiety. The study samples comprised 393 normal secondary school students from Shandong, China. Analysis of regression data revealed that the academic buoyancy factor (self-efficacy) and test anxiety were significantly affected by academic motivation.

Furthermore, Koca and Dadandi (2019) conducted a similar study concerning the mediation role of academic motivation. They examined the association between academic self-efficacy and academic achievement as well

as the mediating effects of academic motivation and test anxiety. Using a sample size of 387 high school students, the outcome revealed that test anxiety as well as academic motivation were quantitatively significant and indirectly influenced the relationship between academic self-efficacy and academic success. Therefore, it can be said based on their findings that academic motivation and test anxiety have performed a mediation function between the academic buoyancy factor (self-efficacy) and students' success. They recommended that the three variables are related and need to be considered when it comes to success in education.

When it comes to mediation effect of academic motivation into the relationship between academic buoyancy and test anxiety, there is a literature gap as it seems much research have not been done in this area. Therefore, this study intends to bridge this literature gap.

Conceptual Framework

This study explained the relationship between students' academic buoyancy, academic motivation, and perceived test anxiety. A model illustrating the relationships between the variables of the study is shown in Figure 2.

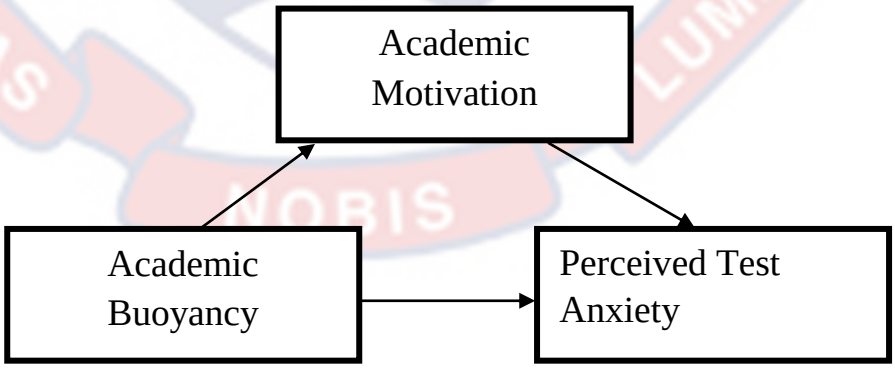


Figure 2: A model explaining the relationship between academic buoyancy, academic motivation and perceived test anxiety.

As shown in Figure 2, the study proposed a direct relationship between academic buoyancy and perceived test anxiety. Academic buoyancy is depicted as an independent variable, which could have a direct effect on perceived test anxiety and at the same time be mediated by academic motivation to have an influence on perceived test anxiety.

Chapter Summary

In this chapter, the study emphasised the literature concerning students' academic buoyancy, academic motivation, and test anxiety. It was captured under three broad headings, including theoretical framework, conceptual framework, conceptual review, and empirical review. Under theoretical review, Maslow's (1943) theory of needs and Bandura's (1977) self-efficacy theory were used to explain students' academic buoyancy, academic motivation, and test anxiety. The conceptual framework presented a diagram explaining the extent of the relationship among the variables being studied. Again, the concepts of academic buoyancy, academic motivation, and test anxiety were explained under conceptual review. Under empirical review, empirical studies on academic buoyancy and test anxiety, academic buoyancy and academic motivation, as well as academic motivation and test anxiety, were reviewed. Again, empirical research on the mediation effect of academic motivation on the relationship between academic buoyancy and test anxiety was reviewed.

CHAPTER THREE

RESEARCH METHODS

Introduction

Methodology used has been outlined in this chapter, the study population, sampling technique, data collection tools, data gathering methods, data processing analysis, ethical considerations, and the research design.

Research Design

The research design employed in this study was a descriptive survey. It involved obtaining information regarding the current situation of the study's subjects in order to test a hypothesis or respond to a specific research question (Creswell, 2014). It determined and reported how things were. The urge to ask questions of a large group of people and get their responses is at the core of descriptive survey research.

The merit of this study approach is that surveys, especially self-administered surveys, are generally inexpensive. Survey research allows for anonymity, which makes participants provide genuine answers. Again, a large sample size can be reached, and this makes the result more statistically significant.

However, a descriptive survey is subject to criticism. For example, Asenahabi (2019) maintains that most often the questions to be answered by participants may not be worded correctly, which may be misleading. In addition, because of social desirability, many sensitive questions are mostly not sincerely answered, which affects the results. Also, the use of a questionnaire in a descriptive survey requires participants to be literate and able to read and understand. This makes it more convenient for the literate

population at the expense of the illiterate population. More so, under a descriptive survey, most participants do not complete the questionnaire, which reduces the response rate, which affects the sample size to be analysed.

To ensure that the weaknesses would not affect the results' validity and reliability, they were thoroughly considered. This design was appropriate for the reason stated in Amedahe (2002) that descriptive surveys deal with interpretating the relationship among variables and describing their relationships. Again, adopting a descriptive survey is useful because the population size of the study seemed to be large. The use of a descriptive survey enabled the researcher to make an effective explanation and evaluation of the independent and dependent variables (Asenahabi, 2019).

Study Area

The study was carried out at Ejisu Municipality in the Ashanti Region of Ghana. The municipal capital is Ejisu, a town located between Konongo and Kumasi in the Ashanti Region. The total number of people living there is about 50,000. It has a number of senior high schools, which include Ejisu Senior High School, Ejisu Senior High Technical School, Onwe Senior High School and Achinakrom Senior High School. Residents in the Ejisu Municipality are predominantly farmers who cultivate crops including cocoa, plantains, and vegetables like onions, garden eggs. They engage in trading activities as well. There are a number of organisations and institutions at Ejisu Municipality, which include the Ghana National Fire Service, Ghana Commercial Bank Limited, Ejisu Government Hospital, the Ejisu Municipal Assembly, and the Ghana Police Service.

This area was chosen for the study because it was notified that senior high school's students have been failing the core subjects (English, Mathematics, and Integrated Science) for the past five years. This might be attributed to test anxiety. Therefore, it made this area suitable and appropriate for the study.

Population

All senior high school student in Ejisu Municipality made up the study's target population. Students from Ejisuman Senior High School, Ejisu Senior High Technical School, Onwe Senior High School, and Achinakrom Senior High School were included in it as a result. Students in their second year at each school were the accessible population. Second-year students were chosen because year one students had just begun their academic work and students in year three were also engaged in preparing for their final examinations.

At the time of the survey, there were 7051 students enrolled in the four senior high schools in the Ejisu Municipality. However, 2618 second-year students from the Ejisu Municipality's four senior high schools made up the accessible population. Bryman and Bell (2011) stated that when all members of a target group cannot be possibly accessed, it becomes prudent to define the accessible group within the population being studied. Therefore, due to time constraints, second-year students were screened from various schools to take part in the study. The population distribution of senior high schools in Ejisu Municipality is presented in Table 1.

Table 1: Population Distribution of Senior High Schools in Ejisu Municipality

Name of School	Year 1	Year 2	Year 3	Total
A-Senior High School	715	843	899	2457
B-Senior High Technical School	588	675	438	1701
C-Senior High School	431	589	505	1525
D- Senior High School	537	511	320	1368
Total	2271	2618	2162	7051

Source: Field Data, (2022)

Sample and Sampling Procedure

The sample determination table created by Krejcie and Morgan in 1970 served as the foundation for the sample size estimation. According to the authors, for a population of 2618, its correspondent sample size is 338 under 95% confidence with a margin of error of .05. Thus, the study's sample size of 338 (157 females and 181 males) was determined from the study's accessible population of 2,618 who were second-year students.

The number of participants from each school was determined based on their total number of second year students. This was done by dividing the total number of second year students in each school by the entire accessible population of the study, and the result was multiplied by 100. Thus, to get a representative from 'A' senior high school, the total population of second year students was divided by the entire accessible population, and the result was multiplied by 100. Thus, (843 ÷ 2618 × 100 = 32). This was to ensure relative representation for the entire accessible population. Furthermore, in order to get the number of students in each participating school based on the percentage it represents, the percentage allocated for each school was divided by 100, and

the results were multiplied by the sample size. For example, in order to get the number of students from 'A' senior high school to be included in the final sample size, this is how it was calculated: 32 ÷ 100 × 338 = 108.

Secondly, a simple random technique was further adopted to select students to take part in the study. The simple random technique was adopted purposely to ensure that each student would have an equal chance of being selected to participate in the study. A lottery method was applied where each student in Form 2 was called to pick from a box. Picking 'yes' meant you have been selected for the study. Picking 'no' meant you would not be part of the study. 'Yes' was allocated to each school based on the sample size it represented in the study.

Table 2 shows the distribution of sample size among the senior high schools in Ejisu Municipality.

Table 2: Sample size Distribution among Senior High Schools in Ejisu Municipality

Name of School	Form two Population (N)	Percentage Representation (%)	Sample Representation (S)
A - Senior High School	843	32	108
B - Senior High Technical School	675	26	88
C - Senior High School	589	22	74
D - Senior High School	511	20	68
Total	2618	100	338

Source: Field Data, (2022)

Data Collection Instrument

The study utilised a structured questionnaire as a tool for collecting data for the research. Bryman and Bell (2011) are of the view that, in most

cases, quantitative research makes use of surveys and questionnaires as procedures for collecting data. Because questionnaires are self-reported standards that guarantee respondent confidentiality and so increase the likelihood that accurate responses would be obtained with regard to the data from the students, they were used as the basis for the study.

The study relied on three primary structured instruments for the collection of data. These were the Academic Buoyancy Scale (ABS), Academic Motivation Scale (AMS), and Test Anxiety Scale (TAS). The Academic Buoyancy Scale (ABS) developed by Poisang (2016), which was specifically developed for accounting students, was adapted to gather data on students' academic buoyancy. The adaption of this scale was appropriate for this study because it consists of all five components (self-efficacy, uncertainty control, academic engagement, anxiety, and teacher-student relationship) proposed by Martin and Mash (2008), who are the proponents of the academic buoyancy concept. Hence, it will measure students' level of academic buoyancy.

The scale consists of five main factors. These are self-efficacy, uncertainty control, academic engagement, anxiety, and teacher-student relationship. Self-efficacy is made up of nine items. It contains positive statements. For example, it is worded with statements such as "If I put in extra effort, I think I can do my coursework well" and "I am confident that I am capable of handling challenging coursework". It begins at question one and ends at question nine. The Cronbach alpha is .75.

Uncertainty control is made up of 10 items. The items are negatively worded. Hence, it was reverse during the coding process. Some of the

statements are “When faced with a challenge, I am certain that I can find a solution” and “I frequently don't know how to complete my homework”. It begins with question 10 and ends with question 20. The Cronbach alpha is .92.

The academic engagement factor is also made up of 10 items. It is made up of positive statements. For example, it includes statements such as “When I don't understand something, I keep reading the passage till I get” and “I want to finish school in time”. It starts at question 21 and ends at question 30. The Cronbach alpha for this factor is .59.

Again, the anxiety factor is made up 10 items. It consists of negative statements. Therefore, it was reverse coded. For instance, it contains statements such as “When exams are approaching, I become anxious” and “When I don't prepare well enough for my tests, I get nervous”. It starts at question 31 and ends at question 40. It has a Cronbach alpha of .94. Concerning teacher-student relationship factor, it is also made up of 10 items. The items are positively worded. For example, it contains statements such as “My relationship with my teacher is good” and “Even outside of the classroom, my teacher engages with us”. It starts at question 41 and ends at question 50. The Cronbach alpha for this factor is .79. In all, the scales consist of 50 items with a Cronbach’s alpha of .81.

The scale is a five-point Likert type scale, with 1 being strongly disagreed (SD) and 5 being strongly agreed (SA), 4 being agreed (A), 3 being neutral (N), and 2 being disagreed (D). The convergence factor validity of the four factors is significantly correlated. The total highest a student could score on the scale is 250, and the total lowest a student could score is 50.

The academic buoyancy scale was adapted since the first ten statement were reworded as indicated below:

1.“I believe I can do my school work well if I exert extra effort” was changed to “If I put in extra effort, I think I can do my coursework well”.

2. “I believe I can pass my examination if I will review ahead of time” was changed to “If I study in advance, I think I can succeed on my examination”.

3. “I believe I can participate well in class discussion if I will read the lesson in advance” was changed to “If I read lesson ahead, I think I can contribute to class discussion”.

4. “I believe I can manage to finish my requirement when the deadlines get nearer” was changed to “I think I will be able to complete my demands whenever the deadlines draw closer”.

5. “I believe I can very well handle difficult school task” was changed to “I am confident that I am capable of handling challenging coursework”.

6. “I believe I can handle well the pressure brought by several class requirement” was change to “I think I can manage the burden that comes with numerous class requirements”.

7. “I believe I can develop deeper interest in the activities I participate in” was changed to “I think I have the potential to get more involved in the activities I do”.

8. “I am confident that I could deal effectively with unexpected events” was changed to “I am confident in my ability to manage unforeseen situations”.

9. “It is easy for me to stick to my aims and accomplish my goals” was changed to “I can simply follow my plans and accomplish my goals”.

10. “I know I can find a solution when confronted with a problem” was changed to “When faced with a challenge, I am certain that I can find a solution”.

As a result of the changes made to the first ten statement of the academic buoyancy scale, a reliability test was done to see how the scale measures the construct. Therefore, the new Cronbach’s alpha of the academic buoyancy scale became .77.

The Academic Motivation Scale (AMS), created by Vallerand et al. (1992), was used to assess academic motivation. Amotivation, extrinsic motivation, and intrinsic motivation make up the scale. The study adopted this scale because it measures students’ motivation towards academic pursuit, and it was suitable for this study since it measured students’ level of academic motivation.

Intrinsic motivation consists of three factors. These are ‘to know’, ‘towards accomplishment’, and ‘to experience stimulation’. The ‘to know’ factor contains four items. For example, it includes statements such as “Because I enjoy and feel satisfied when I learn something new” and “For the joy I have when I find new, undiscovered things for the first time”. Also, the ‘towards accomplishment’ factor consists of four items. For instance, it consists of worded statements such as “Because it makes me happy to outperform myself in my studies” and “For the joy I feel when I beat my own records in the accomplishment of my gaols”. More so, the ‘experience stimulation’ factor comprises four items. Some of the items include “For the strong emotion I feel when I share my thoughts with others” and “For the pleasure I derive from reading excellent writers”.

In addition, extrinsic motivation comprises three factors. These are identified, introjected, and external regulation. The identified factor has four items, including “Because I believe that graduating from high school will better prepare me for the career being chosen” and “Since it will eventually allow me to enter the employment market in a profession that I enjoy”. Also, the introjected factor comprises four items. Some of the items include “To demonstrate to myself that I am capable of finishing high school” and “Because I feel superior when I do well in high school”. Last on extrinsic motivation is external regulation, which has four items. It contains statements such as “I wouldn't be able to obtain a high-paying career later on if I simply had a junior high school diploma” and “In order to later acquire a more respectable job”.

When it comes to amotivation factor, it contains four items. It includes statements such as “Sincerely, I have no idea; I genuinely believe that my time in education is being wasted” and “When I first started high school, I had very good reasons to go, but now I'm not sure if I should keep going”.

The scale has a total of 28 items and seven factors, including "to know," "to feel accomplishment," "to feel stimulated," "identified," "introjected," "external regulation," and "amotivation." The sub-factors' reliability coefficients vary from.71 to.83, and their Cronbach's alpha values fluctuate between.78 and.90 (Cetin, 2015). A seven-point Likert-type scale is used, with 1 denoting "Strongly Disagree," 2 "Disagree," 3 "Somewhat Disagree," 4 "Neutral," 5 "Somewhat Agree," 6 "Agree," and 7 "Strongly Agree." There are no items on the scale that are reverse scored. The scale's total greatest score is 196, while its total lowest is 28.

Perceived test anxiety was measured using Driscoll's (2004) Westside Test Anxiety Scale (WTAS). Using this scale, it was possible to gauge the levels of anxiety that impair performance during exams. In light of the fact that the purpose of this study is to gauge students' test anxiety, it was therefore appropriate.

There are ten items in all. Students' feelings are represented on a 5-point Likert-type scale, with 5 being strongly agreed (SA), 4 being agreed (A), 3 being neutral (N), 2 being disagreed (D), and 1 being strongly disagreed (SD). It has no reverse score for the items. It contains statements such as "The more an important exam approaches, the more it becomes difficult for me to focus on the subject notes material" and "It is only after the exam is done that I can remember the answers to the questions".

The Westside Test Anxiety Scale has a good level of internal consistency, with a Cronbach's alpha of 0.89 (Thanusri & Zinna, 2021). The most possible total score for a student is 50, while the minimum possible total score for a student is 10. This scale was adopted because it measures students' level of test anxiety, as it has indicated.

Validity of the instrument

The Academic Buoyancy Scale (ABS), Academic Motivation Scale (AMS), and the Westside Anxiety Scale (WAS) were given to my supervisor in order to validate the instrument. My supervisor's knowledge, experience, and expertise in psychology give no doubt about his judgment of the accuracy of the instrument.

Reliability of the Instrument

The instrument was pre-tested to check for its' reliability. A pilot test was conducted with senior high schools in the Sekyere East district. Sekyere East district was chosen because it is in the same region; hence, students share similar characteristics with the chosen population (Ejisu Municipality) of study.

During the pilot study, 60 students were randomly selected from the schools to take part in the study. They completed the questionnaire for about 45 minutes. The reliability was established using the Cronbach alpha. The reliability obtained for Academic Buoyancy Scale was .73. The obtained reliability of the Academic Motivation Scale was .84. Also, the reliability of the Westside Test Anxiety Scale was .89. According to Karagoz (2016), a reliability coefficient of an instrument that is .70 or above yields accurate results. Since the reliability coefficient for the three scales was above .70, it was used to carry on with the data collection.

During the pilot study, some students were finding it difficult to tick the Likert scale. Also, most students were not able to complete the questionnaire within the thirty-minute allocated time given to them. Therefore, during the main data collection period, we took time to explain the Likert scale to the participants. This was to ensure that they answered the questionnaire without mistakes. Again, an additional 15 minutes were added to the time in order to ensure that they completed the questionnaire on time.

Data Collection Procedure

Researchers must gather primary data that is relevant, moral, unbiased, accurate, and current to a study (Saunders, 2012). Therefore, ethical clearance

was first sought from the university, which carefully ensured that the research was conducted in compliance with Cape Coast University's ethical standards.

Three research assistants helped with the data collection at the various schools. The research assistants were college students from the departments of education and psychology who were doing similar research. They were trained a day before the data collection for the study. The research assistants were trained on the concepts of the variables under study. They were also trained to understand the Likert scale. They again received training on the items on the scales and the procedure for administering them. Since the research assistants were from the Department of Education and the Department of Psychology and were doing similar research, training them to understand the research procedure was not difficult.

All measures were put in place. Subjects were given free will in terms of participation. Participants were informed that the study purposely aimed to investigate academic buoyancy, academic motivation and perceived test anxiety among senior high school students. They were also informed that the study was not meant to victimize anyone but to ascertain data about their level of academic buoyancy, academic motivation, and perceived test anxiety. Instructions were explained to the respondents. They were also told to ask for help from the researchers when they did not understand anything concerning the filling of the questionnaire.

Using three research assistants, questionnaire containing the academic buoyancy scale, academic motivation scale, and test anxiety scale were administered to participants. It was collected back for analysis. The return rate of the questionnaire was (100%.)

It took two weeks for the data collection. Box and whisker plots were used to determine extreme outliers. These extreme outliers were deleted, thereby reducing the sample from 338 to 322.

Data Processing and Analysis

According to the aims of the study, the quantitative data was organized. It was entered and coded using SPSS. Both descriptive and inferential statistics were used in the analysis of the quantitative data. Before investigating how academic buoyancy relates to test anxiety, descriptive statistics (percentages and frequencies) were used to describe the distribution of the responses to the items on the Likert scale. The descriptive statistics did not contribute directly to answering any key research hypothesis or question; they were intended to explore the data for further discussions.

Furthermore, the Pearson Product Moment Correlation method was used to investigate the nature of the relationship between academic buoyancy, academic motivation, and test anxiety. That is to say, the first study objective was tested using the Pearson Product Moment Correlation. This made it feasible to clarify the link between the test anxiety variable and academic buoyancy.

Again, the hypothesis for research objective two was analysed and tested using Pearson Product Moment Correlation analysis. This made it feasible to clarify the link between the academic motivation variable and academic buoyancy. Also, for research objective three, Pearson Product Moment Correlation analysis was used to analyse and test the hypothesis. This also made it possible to explain the relationship between academic motivation and test anxiety.

Finally, in research objective four, Haye's mediation process model 4 in SPSS was used to analyse the data. This is because the variables are continuous, and it constitutes a simple mediation where there is one predictor X (academic buoyancy), one mediator M (academic motivation), and one outcome Y (perceived test anxiety). This made it possible to explain the mediation effect of the mediation variable (academic motivation) between the relationship of the independent variable (academic buoyancy) and the dependent variable (test anxiety).

All analyses were done with a confidence level of 95%, meaning an alpha level of .05. Normality assumptions were also checked in each statistical analysis.

Ethical Consideration

The research strictly followed the ethical procedures set by the University of Cape Coast. An introductory letter was collected from the department to seek for ethical approval from the Institutional Review Board before carrying on with the study. Again, permission was sought from headmasters at various participation schools before data was collected. Ethically, respondents were given free will in terms of participation. Therefore, a consent form was given to them to sign, and it was made clear that data would be gathered from them so as to determine their level of academic buoyancy, academic motivation, and test anxiety.

The participants were not made anxious or subjected to any other unpleasant conditions; instead, their ideas were just evaluated regarding academic buoyancy, academic motivation, and test anxiety. There was no

presumption that the study would cause any adverse conditions that would go beyond the usual dangers of senior high school education.

A follow-up study was conducted to determine whether the research procedure had a negative impact on participants and to determine the next course of action. Respondents were made aware that their registration number would be collected just to make room for errors concerning the filling of the questionnaire. They were informed of the objectives of the study. They received guarantees of confidentiality and anonymity; hence, respondents were not allowed to write their names, class, school, or any other information that would ensure identification. However, for academic purposes, researchers were instructed to use the alphabet to identify the schools for which any records were kept. Thus, 'A' represents Ejisu senior high school, 'B' represents Ejisu senior high technical school, 'C' represents Onwe senior high school, and 'D' represents Achinakrom senior high school.

They received assurance that the study was carried out for scholarly purposes and were told that even if a third party wanted to utilize the data, their consent would be first sought. They were again informed that each and every respondent had the freedom to leave the study at any point they desired to do so. Participants had to declare that they had read the informed consent form and had accepted the participation guidelines. Finally, it was made clear to them that the research findings would be generalised to the larger population and not to the respondent group.

Chapter Summary

This chapter comprised the data collection and its organisation, analysis and presentation of the primary data, and how they would be

interpreted. That is, it presented information about the research design, study area, population, sampling procedure, data collection instruments, data collection procedures, data processing analysis, ethical consideration, and chapter summary.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results obtained from the analysis and discussion of the research study as follows: gender distribution of the respondents, analysis of the results, discuss the result in line with the literature.

Results

Before the analyses of the research objectives were conducted, a descriptive statistic on the background to the study was we performed. The gender distribution was first presented in Figure 3. It must be emphasised that, though gender distribution did not form part of the final analysis, it was performed so that the researcher would get an in-depth understanding of the data.

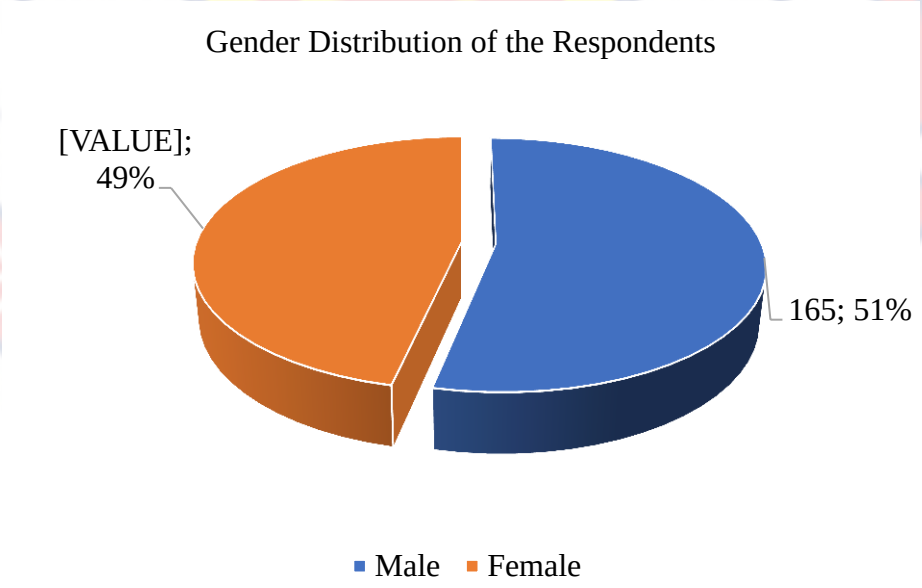


Figure. 3: Gender distribution of the respondents
(Source: Field work, 2022)

Figure 3 shows the gender distribution of the respondents. It was observed from the figure that 157 (49%) of the students are female, while 165 (51%) of the students are male. Thus, the study sampled more male students as compared to female students.

The researcher analysed the views of students' academic buoyancy, academic motivation, and test anxiety, using mean and standard deviation. The results of the analysis are presented in Table 3, 4, and 5. Data on students' academic buoyancy was collected using a five-point Likert scale ("5=Strongly Agree (SA), 4=Agree (A), 3=Neutral (N), 2=Disagree (D), 1=Strongly Disagree (SD)"). The mean of the five-point Likert scale was used to determine if students agreed or disagreed with the statements. Students who were indecisive about a statement were considered to disagree with the statement. Thus, if the mean of a statement is 3.5 or more, then students agreed to the statement; otherwise, they disagreed. The standard deviations show how their views differ from one another. For easy interpretation of the results, the statements are arranged according to the highest mean to the lowest. The descriptive statistics of academic buoyancy is indicated in Table 3.

Table 3: Mean and Standard Deviation Results of Academic Buoyancy

Statement	Mean	Std. Dev.
If I put in extra effort, I think I can do my coursework well.	4.28	1.066
If I study in advance, I think I can succeed on my exams.	4.16	1.075
If I read the lesson ahead, I think I can contribute well to the class discussion.	4.12	1.151
When I receive poor exam results, I worry.	4.07	1.423
When I don't prepare well enough for my tests, I get nervous.	3.93	1.214
My teacher is someone I greatly respect.	3.88	1.541
I like going to school.	3.82	1.476
I appreciate being given the opportunity to go to school.	3.79	1.428
I place a lot of value on my education.	3.77	1.546
I like to learn in school.	3.75	1.463
I want to finish school in time.	3.69	1.463
Any time I don't understand something, I keep reading the passage till I get.	3.69	1.425
I think I have all the potential to get more involved in the activities I do.	3.64	1.327
I can simply follow my plans and accomplish my goals.	3.63	1.417
I worry when I have trouble in my studies.	3.59	1.257
I want to finish my education with distinction.	3.56	1.527
When faced with a challenge, I am certain that I can find a solution.	3.55	1.320
My teacher is respectful to me.	3.55	1.414
My teacher cherishes his interaction with us.	3.48	1.327
I am confident that I am capable of handling challenging coursework.	3.42	1.298
I think I can manage the burden that comes with numerous class requirements.	3.39	1.165
My teacher is interested in his students' individual situations.	3.37	1.263
Every time I'm tasked with leading a team in a task, I get anxious.	3.35	1.364
My teacher respects my individual views.	3.33	1.287
I think I will be able to complete my demands, whenever the deadlines draw closer.	3.32	1.207
Every time I'm requested to deliver my academic work in front of the class, I get anxious.	3.30	1.400
Outside of the classroom, my teacher and I are close friends.	3.28	1.397
Even outside of the classroom, my teacher engages with us.	3.27	1.402
I participate in group projects that we complete in class.	3.27	1.284
I am confident in my ability to manage unforeseen situations.	3.26	1.165
On my exams, I'm not sure if my responses are accurate.	3.25	1.206
I'm not sure how I can keep from performing poorly in my classes.	3.24	1.380
Every time I have to recite in class, I become anxious.	3.24	1.290
I may discuss my academic issues with my teacher.	3.22	1.479
My teacher respects my viewpoints on topics raised in and out of class.	3.21	1.389
My relationship with my teacher is good.	3.21	1.327
I don't think the explanations I give in class are accurate.	3.15	1.232
When I'm taking a test, I become anxious.	3.14	1.317

Sometimes when I work by myself, I feel uncertain.	3.14	1.343
Most of the time, I'm not certain if I shall pass in the examination.	3.13	1.339
I get anxious anytime an examination is approaching.	3.13	1.304
If I studied, I'm not certain if it would enable me do well on my tests.	3.09	1.352
I frequently don't know how to complete my homework.	3.09	1.198
At class recitations, I'm not confident in my response.	3.07	1.331
I feel worried when examinations are coming.	3.07	1.342
When I have many assignments, I become very anxious.	3.07	1.356
I offer to take charge of a group during a class activity.	3.03	1.329
When I don't grasp a subject, the instructor is teaching in class, I ask him about it.	3.01	1.365
I'm not sure how I will succeed in my subjects.	2.99	1.342
I frequently have doubts concerning the ideas I present in class.	2.96	1.286
Grand Mean	3.245	.4640

Source: Field work, 2022

Table 3 presents the descriptive statistics of the responses of the students about their academic buoyancy. The results showed that students agreed to the statements “If I put in extra effort, I think I can do my coursework well” (Mean = 4.28, SD = 1.066), “If I study in advance, I think I can succeed on my exams” (Mean = 4.16, SD = 1.075), and “If I read the lesson ahead, I think I can contribute well to the class discussion” (Mean = 4.12, SD = 1.151). The study further showed that students agreed that “When I receive poor exam results, I worry” (Mean = 4.07, SD = 1.423), “When I don't prepare well enough for my tests, I get nervous” (Mean = 3.93, SD = 1.214), and “My teacher is someone I greatly respect” (Mean = 3.88, SD = 1.541).

Again, the students agreed that they like going to school (Mean = 3.82, SD = 1.476), they value the fact that they are given the opportunity to go to school (Mean = 3.79, SD = 1.428) and place a lot of value on their education (Mean = 3.77, SD = 1.546). They also agreed that they like to learn in school (Mean = 3.75, SD = 1.463) and their teacher is respectful to them (Mean = 3.55, SD = 1.414).

However, the students disagreed with the following statements: “My teacher cherishes his interaction with us (Mean = 3.48, SD = 1.327), I am confident that I am capable of handling challenging coursework (Mean = 3.42, SD = 1.298), “I think I can manage the burden that comes with numerous class requirements” (Mean = 3.39, SD = 1.165), “My teacher is interested in his students' individual situations” (Mean = 3.37, SD = 1.263) and “Every time I am tasked with leading a team in a task, I get anxious” (Mean = 3.35, SD = 1.364).

Again, students disagreed that their teacher respects their individual views (Mean = 3.33, SD = 1.287). They also disagreed that they believe they will be able to complete the demands whenever the deadlines draw closer. (Mean = 3.32, SD = 1.207). They further disagreed with the following statements: “I offer to take charge of a group during a class activity” (Mean = 3.03, SD = 1.329); “When I do not grasp a subject, the instructor is teaching in class, I ask him about it” (Mean = 3.01, SD = 1.365); “I am not sure how I will succeed in my subjects” (Mean = 2.99, SD = 1.342); and “I frequently have doubts concerning the ideas I present in class” (Mean = 2.96, SD = 1.286).

The views of students about their academic motivation were also analysed using the mean and standard deviation. Data on students’ academic motivation was collected using a seven-point Likert scale: 7 = Strongly Agree (SA), 6 = Agree (A), 5 = Somehow Agree (SHA), 4 = Neutral (N), 3 = Somehow Disagree (SHD), 2 = Disagree (D), and 1 = Strongly Disagree (SD). The mean and standard deviation were computed for their responses. Mean values of 4.5 and above indicate agreement from the students with respect to

the statement; otherwise, they disagreed with the statement. The results of the analysis are presented in Table 4.

Table 4: Mean and Standard Deviation Results of Academic Motivation

Statements	Mean	Std. Dev.
Because I believe that graduating from high school will better prepare me for the career being chosen.	6.25	1.519
I want to live a happy life someday.	6.02	1.863
I will be able to choose my career path more wisely as a result of this.	5.75	1.820
I want to demonstrate to myself that I can achieve in my academic endeavours.	5.75	1.924
Because it allows me to continue learning about a range of subjects that I find interesting.	5.68	1.786
I think that a few more years of study will help me become a more competent worker.	5.57	1.810
To demonstrate to myself that I am capable of finishing high school.	5.56	1.984
To eventually earn a higher income.	5.55	1.984
I wouldn't be able to obtain a high-paying career later on if I simply had a junior high school diploma.	5.54	1.902
In order to later acquire a more respectable job.	5.47	1.933
Because I feel superior when I do well in high school.	5.46	1.977
Because my pursuit of academic greatness in high school gives me a sense of personal gratification.	5.44	1.770
To demonstrate to myself my intelligence.	5.33	2.029
Since it will eventually allow me to enter the employment market in a profession that I enjoy.	5.29	2.004
Because I enjoy and feel satisfied when I learn something new.	5.23	1.822
For the pleasure I get in learning more about subjects that interest me.	5.12	1.895
As a result of good feeling, I get from reading about numerous fascinating topics.	4.94	1.685
Because it makes me happy to outperform myself in my studies.	4.93	1.798
For the joy I have when I find new, undiscovered things for the first time.	4.88	1.930
For the joy I feel when I beat my own records in accomplishment of my gaols.	4.77	1.669
For the pleasure I derive from reading excellent writers.	4.75	1.788
For the strong emotion I feel when I share my thoughts with others.	4.60	1.686
I enjoy reading certain authors' works so much that I find myself entirely fascinated in their words.	4.51	1.801
For the feeling of fulfilment, I get from completing challenging academic tasks.	4.50	1.990
When I first started high school, I had very good reasons to go, but now I'm not sure if I should keep going.	4.21	2.314

I don't understand why I attend high school, and to be really honest, I don't care.	2.59	2.090
Sincerely, I have no idea; I genuinely believe that my time in education is being wasted.	2.34	2.084
I don't know; I can't understand what I am doing in school.	2.33	1.966
Grand mean	5.327	.7598

Source: Field work, 2023

Table 4 shows the descriptive statistics of students' responses about their level of academic motivation. The results showed that the respondents agreed that they are motivated to learn because "they believe that graduating from high school will better prepare them for the career being chosen" (Mean = 6.25, SD = 1.519), "I want to live a happy life someday" (Mean = 6.02, SD = 1.863), "I will be able to choose my career path more wisely as a result of this" (Mean = 5.75, SD = 1.820), and "I want to demonstrate to myself that I can achieve in my academic endeavours" (Mean = 5.75, SD = 1.924).

Again, students agreed that they are motivated because it allows them to continue learning about a range of subjects that they find interesting (Mean = 5.68, SD = 1.786). They also believed they were motivated in school because a few more years of study would help them become more competent workers (Mean = 5.57, SD = 1.810), demonstrate to themselves that they have the capacity to complete high school (Mean = 5.56, SD = 1.984), and eventually earn a higher income (Mean = 5.55, SD = 1.984).

However, the respondents disagreed with the statements; "When I first started high school, I had very good reasons to go, but now I am not sure if I should keep going" (Mean = 4.21, SD = 2.314), "I do not understand why I attend high school, and to be really honest, I do not care" (Mean = 2.59, SD = 2.090), "Sincerely, I have no idea; I genuinely believe that my time in education is being wasted" (Mean = 2.34, SD = 2.084), and "I am not sure

because I struggle to understand what I do in school" (Mean = 2.33, SD = 1.966). These responses showed that students are still motivated to go to school, care about their high school education, are not wasting their time in school, and understand why they are doing well in school.

The views of students about their anxiety were also analysed using the standard deviation and mean. That is, the standard deviation and mean were computed for their responses, which were on a scale of 5. Mean values of 3.5 and above indicate agreement from the students with respect to the statement; otherwise, they disagreed with the statement. Table 5 displays the findings of the analysis.

Table 5: Mean and Standard Deviation Results of Test Anxiety

	Mean	Std. Deviation
I stress about whether I performed well enough after a test.	4.04	1.124
It is only after the exam is done that; I can remember the answers to the questions.	3.50	1.391
The more an important exam approaches the more it becomes difficult for me to focus on the subject note material.	3.44	1.211
Before a big test, I worry so much that I become exhausted to deliver my best effort during the test.	3.29	1.277
When I have important tests, I feel off or not entirely myself.	3.00	1.362
Important tests cause me to lose attention, and I have trouble recalling the content I understood prior to the test.	2.86	1.317
When I learn, I become concern that I will not recall the content in the exam time.	2.82	1.348
When I'm taking major tests, I sometimes notice that my thinking gets distracted.	2.78	1.429
During big test, I worry that I am performing poorly or that I might fail.	2.66	1.286
Writing assignments are difficult for me, and I try to avoid them whenever possible.	2.55	1.413
Grand mean	3.098	.6381

Source: Field work, 2022

The results of students' views about test anxiety are reported in Table 5. It was revealed that students agreed that they stressed about whether they performed well enough after a test (Mean = 4.04, SD = 1.124). This showed that they were concerned about their performance after an exam. Also, the students agreed that it is only after the exam is done that they can remember the answers to the questions (Mean = 3.50, SD = 1.391).

However, the students disagreed that the more an important exam approaches, the more it becomes difficult for them to focus on the subject note material (Mean = 3.44, SD = 1.211). Again, they were not in agreement with the following statements: "Before a big test, I worry so much that I become exhausted to deliver my best effort during the test" (Mean = 3.29, SD = 1.277); "When I have important tests, I feel off or not entirely myself" (Mean = 3.00, SD = 1.362); "Important tests cause me to lose attention, and I have trouble recalling the content I understood prior to the test" (Mean = 2.86, SD = 1.317); and "When I learn, I become concern that I will not recall the content in the exam time" (Mean = 2.82, SD = 1.348).

Also, they disagreed that when taking major tests, they sometimes notice that their thinking gets distracted (Mean = 2.78, SD = 1.429), they think during big tests, they worry that they will perform poorly or that they might fail (Mean = 2.66, SD = 1.286), and writing assignments are difficult for them, and they try to avoid them whenever possible (Mean = 2.55, SD = 1.413).

The study used inferential statistics such as correlation and regression. Therefore, the assumption of normality, which is considered the fundamental of all parametric assumptions, needs to be conducted. The researcher used a number of items or statements to measure academic buoyancy, test anxiety,

and academic motivation. Negative worded statements were recorded as 1=Strongly Agree (SA), 2=Agree (A), 3=Neutral (N), 4= Disagree (D), and 5=Strongly Disagree (SD) for academic buoyancy.

After recording the statements, mean values were computed for the statements. The mean value gives a single set of data to measure each of the constructs. For example, the study used 50 statements to measure academic buoyancy. However, these 50 items were merged to form a single dataset by finding the means of each of the 50 items for all responses. This gives a single set of data to measure academic buoyancy. The same process was used to get a single set of data to measure academic motivation and test anxiety. The assumption of normality was tested using a histogram with a normality plot, and box and whisker plot.

Preliminary analysis was conducted to ensure that the data were normally distributed. Box and whisker plots were used to determine extreme outliers. After this, the normality of each of the variables was checked. The distribution of the three variables' graphs revealed that academic buoyancy, academic motivation, and test anxiety are approximately normally distributed. Therefore, further statistical analysis can be conducted using these data.

Research Hypothesis 1

Research objective one aimed at examining the extent to which academic buoyancy relates to the perceived test anxiety of students in Ejisu Municipality. Therefore, research hypothesis one was formulated:

1. $H_{0:}$ Academic buoyancy does not relate to perceived test anxiety among senior high school students in Ejisu Municipality.

$H_{1:}$ Academic buoyancy relates to perceived test anxiety among senior high school students in Ejisu Municipality.

Pearson Product Moment Correlation analysis was conducted to identify any possible relationships between academic buoyancy and test anxiety using students' scores for academic buoyancy (an independent variable) and test anxiety (a dependent variable). The Pearson correlation coefficient is appropriate for this analysis since both variables are quantitative and normally distributed. Table 6 displays the findings of the analysis.

Table 6: Correlation between Academic Buoyancy and Test Anxiety

Variables	N	Coefficient	Sig.
Academic Buoyancy – Perceived Test Anxiety	322	-.395	.000

Source: Field work, 2022

Table 6 shows the result of the correlation between academic buoyancy and test anxiety. The correlation analysis was conducted at the 5% level of significance, and the correlation coefficient ($r = -.395$, $p < .05$) shows that there is a significant negative weak correlation between the two variables. Thus, academic buoyancy does relate to students' perceived test anxiety. Specifically, when academic buoyancy increases, there is some likelihood that students' level of perceived test anxiety decreases, and vice versa. It means that academic buoyancy does relate to students' perceived test anxiety. Therefore, the alternative hypothesis was accepted, whereas the null hypothesis was rejected. It was then concluded that academic buoyancy significantly correlates with perceived test anxiety among the students in Ejisu Municipality.

Research Hypothesis 2

The second research objective aimed at finding out the degree to which academic buoyancy relates to the academic motivation of senior high school students in Ejisu Municipality. Therefore, research hypothesis two was made:

2. $H_{0:}$ Academic buoyancy does not relate to academic motivation among senior high school students in Ejisu Municipality.

   $H_{1:}$ Academic buoyancy relates to academic motivation among senior high school students in Ejisu Municipality.

Data on academic buoyancy and academic motivation were obtained using a questionnaire. The data was used to analysed correlation using the Pearson correlation coefficient. The Pearson correlation coefficient is appropriate for this analysis since both variables are quantitative and normally distributed. Table 7 displays the findings of the analysis.

Table 7: Correlation between Academic Buoyancy and Academic Motivation

Variables	N	Coefficient	Sig.
Academic Buoyancy – Academic Motivation	322	.474	.000

Source: Field work, 2022

The items in Table 7 showed the result of the correlation between academic buoyancy and academic motivation. The correlation analysis was conducted at 5% level of significance, and the correlation coefficient ($r = .474$, $p < .05$) shows that there is a positive moderate correlation between the two variables. Thus, an increase in academic buoyancy will likely cause an increase in the academic motivation of students. Similarly, a decrease in Academic Buoyancy will likely cause a decrease in the academic motivation of students. As a result of this, the alternative hypothesis was accepted,

whereas the null hypothesis was rejected. It was then concluded that academic buoyancy significantly and positively correlates with academic motivation among senior high school students in Ejisu Municipality.

Research Hypothesis 3

The third research objective aimed at determining the extent to which academic motivation relates to perceived test anxiety among senior high school students in Ejisu Municipality. Therefore, research hypothesis three was made as indicated below:

3. $H_{0:}$ Academic motivation does not relate to perceived test anxiety among senior high school students in Ejisu Municipality.

   $H_{1:}$ Academic motivation relates to perceived test anxiety among senior high school students in Ejisu Municipality.

Likert-scale questions were used to collect data on the two variables. The means of the items were calculated and used for the correlation analysis. The data was analysed using the Pearson correlation coefficient at 5% level of significance. The Pearson correlation coefficient is appropriate for this analysis since both variables are quantitative and normally distributed. The results of the analysis are presented in Table 8.

Table 8: Correlation between Academic Motivation and Test Anxiety

Variables	N	Coefficient	Sig.
Academic Motivation -Perceived Test Anxiety	322	-.139	.012

Source: Field work, 2022

Table 8 revealed the correlation between academic motivation and the perceived test anxiety of students. The result of the correlation analysis

showed that there is a significant negative weak correlation ($r = -.139$, $p < .05$) between the two variables at 5% level of significance. Thus, academic motivation does relate to students' perceived test anxiety. Specifically, when academic motivation increases, there is some likelihood that students' level of perceived test anxiety decreases, and vice versa. It means that academic motivation does relate to students' perceived test anxiety. Therefore, the alternative hypothesis was accepted, whereas the null hypothesis was rejected. It was then concluded that academic motivation significantly correlates with perceived test anxiety among the students in Ejisu Municipality.

Research Question

Research objective four investigated the mediation effect of academic motivation on the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality. It therefore stated a research question that:

1. What is the mediating effect of academic motivation in the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality?

Haye's mediation process model 4 in SPSS was employed to examine the data. This is because the variables are continuous, and it constitutes a simple mediation where there is one predictor X (academic buoyancy), one mediator M (academic motivation), and one outcome Y (perceived test anxiety). The scores of students on academic buoyancy (AB), academic motivation (AM) and test anxiety (TA) were used in the analysis. Table 9 displays the findings.

Table 9: Mediation Effects of Academic motivation in the Relationship Between Academic Buoyancy and Perceived Test Anxiety

					Confidence Interval	
	Effect	BSE	CR	p	Lower Limit	Upper Limit
Total effect of X on Y	-.5427	.0706	-7.6841	.0000	-.6817	-.4038
Direct effect of X on Y	-.5828	.0802	-7.2690	.0000	-.7405	-.4251
Indirect effect of X on Y	Effect	BSE	BootLLCI		BootULCI	
Academic Motivation	.0401	.0381	-.0344		.1148	
Completely standardised indirect effect(c'cs)	c'_{cs}	BSE	BootLLCI		BootULCI	
Academic Motivation	.0291	.0278	-.0255		.0840	

Completely standardised indirect effect(c'cs): Total effect = -.3947; Direct effect = -.4238

The direct effect determines if the relationship between Academic Buoyancy and Perceived Test Anxiety is direct and not mediated by Academic Motivation. The outcomes in Table 9 demonstrated that the direct effect was -.5828 (t = -7.2690, p = .0000). Since the p value is less than 0.05, the relationship between Academic Buoyancy and Perceived Test Anxiety is direct. This implies that without the mediator (academic motivation), academic buoyancy independently predicted students' perceived test anxiety. This implies that an increase in academic buoyancy would lead to a .5828 decrease in test anxiety. Thus, students who are able to overcome academic setbacks are less test anxious.

More so, at the time the mediator variable (academic motivation) was introduced into the relationship as seen as the indirect effect, the relationship was statistically not significant, .0401 with a 95% bootstrap confidence interval of -.0344 (lower limit) to .1148 (upper limit). It was therefore concluded that academic motivation does not mediate the relationship between academic buoyancy and perceived test anxiety. This result implies that

academic motivation is not a mediator or an explanation of the association between academic buoyancy and perceived test anxiety among senior high school students.

Discussion

Relationship between Academic Buoyancy and Perceived Test Anxiety among the Students

The research findings showed under research objective one that a significant negative but weak relationship exists between academic buoyancy and students' perceived test anxiety. This implies that as academic buoyancy increases, there is a likelihood of their test anxiety reducing, and vice versa. This is understandable given that students are able to handle academic disappointments and challenges successfully; they will be able to reduce the anxiety they face when writing or taking exams.

This result is not a surprise because other researchers have achieved similar results. Putwain et al. (2016) has affirmed that anxiety is a major predictor of academic buoyancy and therefore contributes negatively to academic buoyancy. This outcome is consistent with numerous studies' findings (Thanusri & Zinna, 2021; Putwain et al., 2015; Asadi et al., 2021; Daly & Putwain, 2013) that academic buoyancy and test anxiety have a negative predictive connection. Thanusri and Zinna (2021) asserted that academically buoyant students do not experience faster heartbeats and frustration, which prevents them from experiencing anxiety during examinations. Similarly, Putwain et al. (2015) stated that academically buoyant students perceive examination conditions as unthreatening, which prevents them from experiencing anxiety. Asadi et al. (2021) emphasised that

students who are buoyant in academics have cognitive skills, including reflection and attention, that resist test anxiety.

The result is possible because there is a conducive environment in the high schools because we do not repeat students for poor performance. As a result of this, pressure is not on students to perform well, which reduces tension and anxiety. When students' anxiety is low, they become emotionally stable, which helps them develop buoyancy to deal with academic obstacles.

The result is also possible because when students are buoyant and are able to cope with academic challenges, it is also likely that their anxiety towards examinations will also be low. The implication is that, once you are buoyant, you are also bold and less afraid of frightening events. Thus, during frightening situations where most students become more anxious because of pending examinations, those buoyant students are less likely to experience anxiety and fear. However, the less buoyant students are more likely to be afraid because they do not have the courage that will help them curb the situation.

Again, one reason for the results is that students who are more able to manage academic setbacks have more confidence which helps them execute tasks before them with positive assurance. This positive assurance that they will succeed in the task or test at hand will make them feel less anxious about the execution of the test. On the other hand, students who are less able to overcome challenges in education are not confident. The lack of confidence makes them feel that they are incapable of passing the test at hand, which contributes to their increased anxiety during examination.

Considering the definition of academic buoyancy, there is no doubt that the relationship between academic buoyancy and test anxiety was an inverse. This research finding confirms the assertion of Martin et al. (2013), who stated that when students are academically buoyant, they become efficacious, which helps them deal with challenges, including test anxiety. Bandura (1977) stated that individuals adopt specific beliefs concerning coping that help them to persevere, organise, and execute a task before them despite challenges. Having an academic buoyancy belief helps the individual to persevere through obstacles to achieve whatever he wants to achieve (Martin, 2013). For example, having high academic buoyancy means a student will be able to persevere through the obstacles of test anxiety to become a successful student.

The relationship between academic buoyancy and test anxiety may also be due to the fact that self-regulated learners are those whose academic buoyancy is high. According to Schunk and Zimmerman (2012), self-regulation is the deliberate individual control of motivation, thought, emotional state, and behavioral pattern required for effective achievement. Therefore, self-regulation techniques are essential for aiding buoyancy. It means that once the students are buoyant in academics, they will have problem-solving skills. This will help them adapt behaviours to work through academic adversities and challenges such as test anxiety. It is clear that test anxiety facilitates the growth of academic buoyancy.

Relationship Between Academic Buoyancy and Academic Motivation Among the Students

For research objective two, the objective was to find out the relationship between academic buoyancy and academic motivation among senior high school students in Ejisu Municipality. The research findings revealed a positive relationship between academic buoyancy and students' academic motivation. This implies that as academic buoyancy increases, there is a likelihood of students' academic motivation increasing, and vice versa.

The outcome is not unexpected because the findings agree with previous empirical research, including Datu and Yang (2021) and Aydin and Michou (2019). Datu and Yang (2021) found an association between academic buoyancy and academic motivation when they examined the relationship between academic buoyancy, and academic motivation among Filipino high school students. Aydin and Michou (2019) found out that motivation in general relates to and predicts students' academic buoyancy.

The consistency of the result may be due to the fact that the research population of both previous studies and the current study were senior high school students. Hence, they share similar characteristics, which resulted in similar results.

The results of the analysis between academic buoyancy and academic motivation may also be rooted in the fact that academic buoyancy and academic motivation seem to be unitary concepts that move together. It means that once a student is more buoyant in academics, they will be more motivated in academics. On the other hand, if a student is more academically motivated, he will also be more buoyant in academics. It implies that a student who is

able to persevere through academic challenges is also academically motivated. Also, when a student is motivated, he will be able to deal with challenges in education.

In addition, the result is, of course, no doubt, as it implies that students who are more able to manage educational difficulties are also encouraged to learn. Thus, once you are buoyant, you become energised towards the accomplishment of your educational goals. Therefore, the more you are buoyant, the more you are motivated to learn. Again, when you are motivated to learn, you in turn become resistant to academic adversities. Hence, the more inclined you are towards academic learning, the more you persevere through academic adversities to accomplish your goals.

More so, the reason for the results also explains Maslow's (1943) theory of needs. It states that when a person is in need of esteem, he is motivated to achieve it. Once a person is motivated towards something, he develops buoyancy towards achieving that thing. Therefore, a student who is academically motivated will also be academically buoyant. That is, motivation to excel in academics will enable them to persevere through possible academic setbacks.

Relationship Between Academic Motivation and Perceived Test Anxiety Among the Students

Under research objective three, the result revealed that there is an inverse relationship between academic motivation and test anxiety among the students. Thus, an increase in students' academic motivation will lead to a decrease in test anxiety. The findings conform with the study of Rajiah (2014), Unal-Karaguven (2015), Ghadampour et al. (2015), Balarabe et al. (2021), and

Afzali and Aminhamatami (2018) on academic motivation and test anxiety, where they found a relationship between academic motivation and test anxiety and concluded in their studies that academic motivation predicts test anxiety.

However, the findings disagree with Ayhan et al.'s (2019) study on test anxiety, academic motivation, and self-sufficiency among Atilim University students. They found that academic motivation does not relate to test anxiety, as their results showed no relationship between academic motivation and test anxiety.

The differences in the result between the current study and that of Ayhan et al. (2019) may be due to the fact that the research location is different, which may vary the characteristics of the two populations. Their research was conducted in Asia, and therefore, what may relate to their motivation and test anxiety will be different from that of Africa, or for that matter, Ghana. Maslow's (1943) theory of needs states that humans have five basic needs, which are hierarchical, and the bottom needs that are more pressing must be satisfied before the top. Based on Maslow's theory, it can be said that the Asian population may have high-esteem needs on the human hierarchy of needs. This implies that they are satisfied with their physiological, safety, and belonging needs. It means that in Asia, students will be motivated towards academic learning since it will help them achieve their esteem needs. As a result of this, test anxiety may relate to them since it is one of the academic challenges.

On the other hand, in Africa and, for that matter, Ghana, because of abject poverty, people may still be in their physiological state on the human needs pyramid. It means that students in this context will be motivated

towards satisfying their basic needs, such as food, rather than looking for academic excellence. Students are therefore not motivated towards achieving academic success, which, according to Maslow, is a top need that is less important than basic needs. Concerning students in this category, do not take their studies seriously, do not prepare for examinations, and do not become test-anxious during examinations.

In addition, the result could be attributed to the new educational system in Ghana. Unlike the previous educational system, where a teacher could repeat a student in a class for not performing well in an examination, the new educational system does not permit school authorities to repeat students for their poor academic performance. Promotion from year two to year three does not depend on whether you did well in your end-of-term examination or not. At the end of the school year, each student is promoted to the next advanced class. The implication of this new educational system for the research is that though students may be academically motivated, they may not be so concerned about passing examinations. For this reason, students will feel less anxious when writing examinations, even though they are motivated to learn.

Mediation Effect of Academic Motivation in the Relationship Between Academic Buoyancy and Perceived Test Anxiety

Research objective four looked into the mediation effect of academic motivation in the relationship between academic buoyancy and perceived test anxiety. The mediation analysis showed that academic motivation does not mediate the relationship between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality. The result disagrees with that of Wang and Rashid (2021), who found that academic

motivation can mediate between academic buoyancy factor (self-efficacy) and test anxiety in their study. The inconsistency of the results may be due to differences in study location.

The results may be attributed to the fact that academic buoyancy and academic motivation are different variables and may have different characteristics. Therefore, what will affect academic buoyancy may not affect academic motivation. As a result of this, academic motivation may not explain the influence of academic buoyancy on perceived test anxiety. It implies that if we want to reduce test anxiety among high school students, encouraging academic buoyancy without academic motivation will yield positive effects.

Chapter Summary

The study's primary goal was to investigate the role of academic motivation in mediating the link between students' academic buoyancy and perceived test anxiety. In the study, it was discovered that there is a negative and weak correlation between students' academic buoyancy and perceived test anxiety. It was once again made clear in the study that academic motivation and academic buoyancy among students have a good positive association. Again, there was a negative correlation between students' academic motivation and perceived test anxiety. The study did, however, show that academic motivation does not mediate the connection between students' academic buoyancy and perceived test anxiety.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter includes findings, conclusions, recommendations and suggestions for future research.

Summary of Findings

The main objective of the study was to determine if academic motivation functions as a mediator in the relationship between academic buoyancy and perceived test anxiety among senior high school students in the Ejisu Municipality. The study explicitly examined the connections between students' perceived test anxiety, academic motivation, and academic buoyancy. It also looked into how academic motivation mediated the connection between students' perceived test anxiety and academic buoyancy. To achieve this, a correlational research methodology was employed for the study. Three hundred and thirty-eight senior high school students from the Ejisu Municipality were chosen as the study's sample size. The Academic Buoyancy Scale (ABS), created by Tristan Piosang in the year 2020, the Academic Motivation Scale (AMS), created by Vallerand et al. in 1992, and the Westside Test Anxiety Scale (WTAS), created by Driscoll in 2004, were used to collect the data. For the study, all scales were used. The data were analyzed using Haye's mediation model 4 analysis and Pearson Product Moment Correlation.

The research investigation produced the following results:

1. There was a significant weak inverse correlation between academic buoyancy and perceived test anxiety among senior high school students in Ejisu Municipality.
2. There was a significant positive correlation between academic buoyancy and academic motivation among senior high school students in Ejisu Municipality.
3. There was a significant negative correlation between academic motivation and perceived test anxiety among the students.
4. Again, at the time the mediator variable (academic motivation) was introduced into the relationship, as seen in the indirect effect, the finding indicated that academic motivation does not mediate the relationship between academic buoyancy and perceived test anxiety.

Conclusions

The study revealed a statistically significant negative relationship between academic buoyancy and perceived test anxiety among the students. Students with higher levels of academic buoyancy demonstrated a remarkable capacity to overcome the challenges posed by perceived test anxiety.

Furthermore, the positive correlation between academic buoyancy and academic motivation suggests that as long as students have the capacity to overcome setbacks in academic, they will also be driven to excel in academic.

Moreover, since relationship between academic motivation and perceived test anxiety was negative among the students, it means that once students have the drive to excel in academic, they will in turn persevere the obstacle of test anxiety.

Finally, it was discovered that, academic motivation does not mediate into the relationship between academic buoyancy and perceived test anxiety among the students. Therefore, the effect of the students' academic buoyancy on perceived test anxiety cannot be explained by their academic motivation.

Recommendations

Several recommendations have been proposed in light of the findings of this study to enhance the academic experiences of senior high school students:

1. The study revealed a statistically significant negative relationship between academic buoyancy and perceived test anxiety among the students. It is therefore imperative for parents, teachers and school head to integrate buoyancy-building activities and workshops into the Senior High School Curriculum. Teaching students' strategies to develop academic buoyancy can empower them to navigate challenges more effectively.

2. The positive correlation between academic buoyancy and academic motivation of the study suggests that in trying to help students overcome challenges in education, parents, teachers and school heads should factor the academic motivation into the teaching and learning process. This is because as long as students have the capacity to overcome setbacks in academic pursuit, they will also be driven to excel in it. This will go a long way to help the educational institutions to achieve their goal.

3. The findings of the study indicated that the relationship between academic motivation and perceived test anxiety was negative among the students. It is very important for parents, teachers, school heads and the ministry of education to promote and encourage academic motivation of the students.

4. It was discovered that academic motivation does not mediate the relationship between academic buoyancy and perceived test anxiety among the students. Therefore, teachers, headmasters and ministry of education should focus more on academic buoyancy than academic motivation since academic buoyancy alone can predict students' test anxiety. This is because the effects of the students' academic buoyancy on perceived test anxiety cannot be explained by their academic motivation.

5. The results indicated that psychological influences such as academic buoyancy and academic motivation were able to negatively relate and predict perceived test anxiety among the students. Therefore, teachers and headmasters should consider other psychological influences or variables to be pared with academic buoyancy and academic motivation in an attempt to reduce test anxiety of students.

Suggestions for Future Research

Apart from the recommendation given, it is also suggested that similar academic research studies could be conducted to gain broader knowledge in this area. The following are areas for suggestions for further studies.

1. Test anxiety seems to be one of the biggest academic challenges in education. Therefore, much research needs to be conducted at all levels of education (for example, primary and tertiary) for a more plausible solution.
2. Other factors should be considered as mediation variables for academic buoyancy and test anxiety in order to gauge the predictive power of academic buoyancy.

3. Other researchers should use the same variable but a different method for better understanding. They could complement the quantitative approaches with qualitative methods for a holistic perspective.

REFERENCES

Abdi, H. M., Bageri, S., Shoghi, S., Goodarzi, S.H., & Hosseinzadeh, A. (2012). The role of metacognitive and self-efficacy beliefs in students' test anxiety and academic achievement. *Australian Journal of Basic and Applied Sciences*, *6*(12), 418-422.

Abdollahi, A., Carlbring, P., Vaez, E., & Ghahfarokhi, S. A. (2018). Perfectionism and test anxiety among high-school students: The moderating role of academic hardiness. *Current Psychology*, *37*(3), 632-639.

Acheampong, H. Y. (2019). *Relationship between students' perception of deficits needs and academic performance of senior high school students in the Techiman North District* [Master Thesis, University of Cape Coast].

Adewuyi, T. O., Taiwo, O. K., & Olley, B. O. (2012). Influence of examination anxiety and self-efficacy on academic performance among secondary school students. *IFE Psychology*, *20*(2), 60-68.

Afzali, A., & Aminhamatami, F., (2018). The role and status of internal and external academic motivation and academic engagement in predicting test anxiety of high school student. *Biquarterly Journal of Cognitive Strategies in Learning*, *6*(11), 175-191.

Alemu, B. M., & Feyssa, T. (2020). The relationship between test anxiety and academic achievement of grade ten students of Shirka Woreda, Oromia Regional State, Ethiopia. *African Educational Research Journal*, *8*(3), 540-550.

Al-hoorie, A. H., Hiver, p., & Yun, S., (2018) Exploring learners' everyday resilience in the language. *Studies in Second Language Acquisition, 40,* 805–830.

Amalu, N. M. (2017). Cognitive test anxiety as a predictor of academic achievement among secondary school students in Makurdi Metropolis, Benue State. *International Journal of Scientific Research in Education*, *10*(4), 362-372.

Amedahe, F.K. (2002). Fundamentals of Educational Research Methods, Mimeograph. Cape Coast: University of Cape Coast.

Anane, E. (2013). An implicit analysis of the prevalence of test anxiety among preservice teachers. *African Journal of Teacher Education, 3* (2), 2- 14.

Asadi J., Hasanzadeh R., & Iri H., (2021). Association of academic buoyancy with school-related anxiety and social participation among students educated via the educational approaches of Mizan and regular Schools. *Int. J. School. Health. 8*(4), 226-233.

Asare, P. Y. (2021). *Preservice management teachers' self-efficacy and anxiety about teaching practicum (*Master Thesis, University of Cape Coast).

Asenahabi, B., M. (2019). Basics of research design: A guide to selecting appropriate research design. *International Journal of Contemporary Applied Researches, 6*(5), 76-89.

Atingyena, F. A. (2012). *The foundations of job motivation among teachers of second cycle institutions in Mampong Municipality of the Ashanti Region* [Master Thesis, University of Cape Coast].

Augner, C. (2015). Depressive symptoms and perceived chronic stress predict test anxiety in nursing students. *Central European Journal of Nursing and Midwifery*, *6*(3), 291-297.

Aydın, G., Michou, A. (2019) Self-determined motivation and academic buoyancy as predictors of achievement in normative settings. *British Journal of Educational Psychology, 90*(4), 1-14.

Aydin, U. (2019). Test anxiety: Gender differences in elementary school students. *European Journal of Educational Research, 8*(1), 21-30.

Ayele, D. (2014). *Teachers' job satisfaction and commitment in general secondary schools of Hadiya zone, in Southern Nation Nationality and People of Regional state* [Master Thesis, Jimma University of Ethiopia].

Ayhan, M., Binici, D., Karakilici, H., Ozgon, E., & Ustaoglu, A. (2019). The relationship between test anxiety and academic performance. *Electronic International Journal of Education, Arts, and Science, 5(*10), 1 – 12.

Bakari, Y. D., Aisha, I.M. (2017). Academic motivation and performance of junior high school students in Ghana. *European Journal of Educational and Developmental Psychology*, *5*(11), 1-11.

Balarabe, M., Bello, R. M., & Yawa, A. W. (2021). Relationship among test anxiety, academic motivation and academic achievement of universities students in north – west zone, Nigeria. *The International Journal of Humanities & Social Studies, 9*(1), 145-150

Bandura, A (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84* (2), 191–215.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.

Bryman, A., & Bell, E. (2011). Ethics in business research. *Business Research Methods, 7*(5), 23-56.

Celik, E. & Yıldırım, S. (2019). Examining test anxiety in terms of academic expectations stress and motivation to study. *Pegem Journal of Education and Instruction 9*(4), 1139-1158.

Cetin, B. (2015). Academic motivation and self-regulated learning in predicting academic achievement in college. *Journal of International Education Research, 11*(12*)*, 95-106.

Cheng, L., Klinger, D., Fox, j., Doe, C., Jin, Y., & Wu., J. (2014). Motivation and Test Anxiety in Test Performance Across Three Testing Contexts: The CAEL, CET, and GEPT. *TESOL Quarterly Journal, 48*(2), 300-330.

Cipra, C., & Muller-Hilke, B. (2019). Testing anxiety in undergraduate medical students and its correlation with different learning approaches. *Plos One, 14*(3), 1-11.

Coca, F., Dadandi, I., (2019). The mediation roles of test anxiety and academic motivation in the relationship between academic self-efficacy and academic achievement. *Elementary Education, 18*(1), 241-252.

Collie, R. J., Ginns, P., Martin, A. J., & Papworth. B. (2017). Academic buoyancy mediates academic anxiety's effects on learning strategies: An investigation of English- and Chinese-speaking Australian students.

An International Journal of Experimental Educational Psychology 37(8), 947-964.

Creswell, J. (2014). *Research design: qualitative, quantitative, and mixed method approaches.* Thousand Oaks, California: SAGE Publications, Inc.

Daly, A., & Putwain, D. (2013). Do clusters of test anxiety and academic buoyancy differentially predict academic performance*? Learning and Individual Differences*, *27*, 157–162.

Datu, J. A. D., & Yang, W. (2018). Psychometric validity and gender invariance of the academic buoyancy scale in the Philippines: A construct validation approach. *Journal of Psychoeducational Assessment*, *36*(3), 278-283.

Datu, J. A. D., Yang, W., (2021). Academic buoyancy, academic motivation and academic achievement among Filipino high school students. *Journal for Diverse Perspectives on Diverse Psychological Issues*, *40*(8), 3958–3965.

Dawood, E., Al Ghadeer, H., Mitsu, R., Almutary, N., & Alenezi, B. (2016). Relationship between test anxiety and academic achievement among undergraduate nursing students. *Journal of Education and Practice*, *7*(2), 57-65.

Deng, W., Lei, W., Shao, F., Wang, H., Zhang, H., (2021) Academic self-efficacy and test anxiety in high school students: A conditional process model of academic buoyancy and peer support. *School Psychology International*, *42*(6), 616–637.

DiCristofaro, K. N. (2018). Am I good enough?: A graduate student offers stress-relieving strategies for undergraduate and graduate students feeling overwhelmed by academic pressure. *The ASHA Leader*, *23*(5), 44-45.

Driscoll, R. (2004). Westside Test Anxiety Scale. *American Test Anxiety Association,* 1-6.

Ekeh, P. U., & Njoku, C. (2014). Academic optimism, students' academic motivation and emotional competence in an inclusive school setting. *European Scientific Journal, 10*(19), 127- 141.

Elhouda, M. N., & Soumia, A. (2021). *A close-up study to EFL Learners' Examination Anxiety–the case of second year University of Msila* (Doctoral dissertation, Uiversity of Mohamed Boudiaf).

Ferdous, F. (2012). A case study of first-year non-English undergraduate students' English learning anxiety in Bangladesh. *Journal of Education and Practice*, *3*(9), 1-12.

Ghadampour, E., Viskarami, H. A., & Kharaem, R. A. (2015). The relationship between motivational beliefs (self-efficacy, academic motivation, test anxiety) with academic performance. *Journal of Educational Psychology Studies, 12*(21), 105-126

Guiffrida, D. A., Lynch, M. F., Wall, A. F., & Abel, D. S. (2013). Do reasons for attending college affect academic outcomes? A test of a motivational model from a self-determination theory perspective. *Journal of College Student Development, 54*(2), 121-139.

Gurland, S. T., & Glowacky, U. C. (2011). Children's theories of motivation. *Journal of Experimental Child Psychology, 110*, 1-19.

Hirvonen, R., Yli-Kivistö, L., Putwain, D. W., Ahonen, T., & Kiuru, N. (2019). School-related stress among sixth-grade students–Associations with academic buoyancy and temperament. *Learning and Individual Differences*, *70*, 100-108.

Ironsi, C. S. (2020). Impact of test anxiety on test scores of pre-service teachers in Northern Cyprus. *International Journal of Educational Management and Development Studies, 1*(20), 19-36.

Joe, H.-K., Hiver, P., & Al-Hoorie, A. H. (2017). Classroom social climate, self-determined motivation, willingness to communicate, and achievement: A study of structural relationships in instructed second language settings. *Learning and Individual Differences, 53,* 133–144.

Karagoz, Y. (2016). *SPSS versus Amos 23, applied statistical analysis*. Ankra, Turkey: Nobel Yayinevi.

Karaka, H. F., & Zgan-A, E., (2019).The relationship between test anxiety and academic performance. *Electronic International Journal of Education, Arts, and Science*, *4*(10), 1-12.

Klinger, D. A., Freeman, J. G., Bilz, L., Liiv, K., Ramelow, D., Sebok, S. S., & Rasmussen, M. (2015). Cross-national trends in perceived school pressure by gender and age from 1994 to 2010. *The European Journal of Public Health, 25*(2), 51-56.

Koca, F., & DADANDI, İ. (2019). Akademik Öz-Yeterlik ile Akademik Başarı Arasındaki İlişkide Sınav Kaygısı ve Akademik Motivasyonun Aracı Rolü. *Ilkogretim Online*, *18*(1).

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement, 30*(3), 607-610.

Lotz, C., & Sparfeldt, J. R. (2017). Does test anxiety increase as the exam draws near? Students' state test anxiety recorded over the course of one semester. *Personality and Individual Differences, 104*, 397-400.

Lowe, P. A., & Ang, R. P., (2012). Cross-cultural examination of test anxiety among US and Singapore students on the test anxiety scale for elementary students (TAS-E). *Educational Psychology, 32*(1), 107-126.

Malmberg, L. E., Walls, T. A., Martin, A. J., Little, T. D., & Lim, W. H. (2013). Primary school students' learning experiences of, and self-beliefs about competence, effort, and difficulty: Random effects models. *Learning and individual differences, 28*, 54-65.

Malespina, A., & Singh, C. (2021). Gender differences in test anxiety and self-efficacy: Why instructors should emphasise low-stake formative assessment in physics courses. *Journal of Physics, 3*, 154-160.

Martin, A. J. (2013). Academic buoyancy and academic resilience: Exploring "everyday" and "classic" resilience in the face of academic adversity. *School Psychology International, 34*, 488–500.

Martin, A. J. (2014). Academic buoyancy and academic outcomes: Towards a further understanding of students with attention-deficit/hyperactivity disorder (ADHD), students without ADHD, and academic buoyancy itself. *British Journal of Educational Psychology, 84*, 86–107.

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46*, 53–83.

Martin, A. J., & Mash, H. W. (2020). Investigating the reciprocal relations between academic buoyancy and academic adversity: Evidence for the protective role of academic buoyancy in reducing academic adversity over time. *International Journal of Behavioural Development*, *44*, 301–12.

Martin, A. J., Ginns, P., Brackett, M. A., Malmberg, L. E., & Hall, J. (2013). Academic buoyancy and psychological risk: Exploring reciprocal relationships. *Learning and Individual Differences*, *27*, 128-133.

Martin, A. J., Yu, K., Ginns, P., & Papworth, B. (2017). Young people's academic buoyancy and adaptability: A cross-cultural comparison of China with North America and the United Kingdom. *Educational Psychology*, *37*, 930–946.

Martin, J. A., & Yu, K., (2014) Personal Best (BP)and 'classic achievement goals in the Chinese contest: their role in predicting academic motivation, engagement and buoyancy, *Educational Psychology 34*(50), 635-658

Martin, K. E. (2021). *Helping high school students succeed academically by meeting their more basic needs*. [Doctoral dissertation, University of South Carolina].

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50(4)*, 370-96.

Maxwell, F., & Ikechukwu, A. I. (2020). Cognitive test anxiety and examination malpractices among senior secondary school students in river state. *International Journal of Scholarly and Educational Research in Africa, 12*(6), 48-59.

McLeod, S. A. (2018). *Maslow's hierarchy of needs*. Retrieved

Mcleod, S. A. (2020, Dec 29). *Maslow's hierarchy of needs*. Simply Psychology. www.simplypsychology.org/maslow.html

McMullan, M., Jones, R., & Lea, S. (2012). Math anxiety, self-efficacy, and ability in British undergraduate nursing students. *Research in Nursing & Health, 35*(2), 178-186.

Morony, S., Kleitman, S., Lee, Y. P., & Stankov, L. (2013). Predicting achievement: Confidence vs self-efficacy, anxiety, and self-concept in Confucian and European countries. *International Journal of Educational Research, 58*, 79-96.

Nie, Y., Lau, S., & Liau, A. K. (2011). Role of academic self-efficacy in moderating the relation between task importance and test anxiety. *Learning and Individual Differences, 21*(6), 736-741.

Nielsen, B., & Harder, N. (2013). Causes of student anxiety during simulation: What the literature says. *Clinical Simulation in Nursing, 9*(11), 507-512.

Odriscoll, D., & McAleese, M. (2022). The protective role of self-compassion on test anxiety among adolescents. *Pastoral Care in Education*, 1-14.

Ofqual, E. H., (2020). *A review of the literature concerning anxiety for educational assessments*. Retrieved from: https://ofqual.blog.gov.uk /2019/03/08/what-is-itlike-to-experience-exam-stress-a-student-perspective/

Olusegun, B. S., & Awuya, I. (2021). An appraisal of test anxiety on atudents' academic performance in Federal University Datsin-Matsina State. *International Journal of Educational benchmark (IJEB), 18*(1), 2489-0170.

Piosang, T. (2016). The Development of Academic Buoyancy Scale for Accounting Students (ABS-AS).

Putwain, D. W. (2019). An examination of the self-referent executive processing model of test anxiety: control, emotional regulation, self-handicapping, and examination performance. *European Journal of Psychology of Education*, *34*(2), 341-358.

Putwain, D. W., & Daly, A. L. (2013). Do clusters of test anxiety and academic buoyancy differentially predict academic performance? *Learning and Individual Differences*, *27*, 157-162.

Putwain, D. W., Connors, L., Symes, W., & Douglas-Osborn, E. (2012). Is academic buoyancy anything more than adaptive coping? *Anxiety, Stress & Coping*, *25*(3), 349-358.

Putwain, D. W., Daly, A. L., Chamberlain, S., & Sadreddini, S. (2015). Academically buoyant students are less anxious about and perform better in high-stakes examinations. *British Journal of Educational Psychology*, *85*(3), 247-263.

Putwain, D., Connors, L., Symes, W., & Douglas-Osborn, E. (2012). Is academic buoyancy anything more than adaptive coping? *Anxiety, Stress and Coping*, *25*, 349–358.

Putwain, D., Daly, A., Chamberlain, S., & Sadreddini, S. (2016). "Sink or swim": Buoyancy and coping in the cognitive test anxiety–academic performance relationship. *Educational Psychologist, 36,* 1807–1825.

Putwain, D. W., Nicholson, L. J., & Kutuk, G. (2023). Warning students of the consequences of examination failure: An effective strategy for promoting student engagement?. *Journal of Educational Psychology*, *115*(1), 36.

Rahafar, A., Maghsudloo, M., Farhangnia, S., Vollmer, C., & Randler, C. (2016). The role of chronotype, gender, test anxiety, and conscientiousness in academic achievement of high school students. *Chronobiology International*, *33*(1), 1-9.

Rajiah, K., (2014) Relationship of test anxiety, psychological distress and academic motivation among first year undergraduate pharmacy students. *International Journal of Applied Psychology 4*(2), 68-72.

Ramirez, G., Shaw, S. T., & Maloney, E. A. (2018). Math anxiety: Past research, promising interventions, and a new interpretation framework. *Educational Psychologist*, *53*(3), 145-164.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York, NY: Guilford Publications

Saeidi, M., & Khaliliaqdam, S. (2013). The Effect of Socio-affective Strategies on Students' Test Anxiety across Different Genders. *Theory & Practice in Language Studies*, *3*(2).

Salturk, A., & Gungor, C. (2020). Investigation of state test anxiety in university students according to success and social based variables. *Journal of Educational leadership and Policy Studies, 8*(3), 2473-2826.

Sanli, C. (2021). The relation between task value, test anxiety and academic self-efficacy: A moderation analysis in high school geography course. *Participatory Educational Research, 8*(1) 265-278.

Sari, S. A., Bilek, G., & Celik, E. (2018). Test anxiety and self-esteem in senior high school students: a cross-sectional study. *Nordic Journal of Psychiatry*, *72*(2), 84-88.

Saunders, M. N. (2012). Choosing research participants. *Qualitative organizational research: Core methods and current challenges*, 35-52.

Schunk, D. H., & Zimmerman, B. J. (2012). *Motivation and self-regulated learning: Theory, research, and applications*. New York, NY: Routledge.

Segool, N. K., Carlson, J. S., Goforth, A. N., Von Der Embse, N., & Barterian, J. A. (2013). Heightened test anxiety among young children: elementary school students' anxious responses to high-stakes testing. *Psychology in the Schools*, *50*(5), 489-499.

Sideeg, A. (2015). Test anxiety, self-esteem, gender difference, and academic achievement: the case of the students of medical sciences at Sudanese universities: a mixed methods approach. *British Journal of Arts and Social Sciences*, *9*(11), 39-59.

Song, J., Bong, M., Lee, K., & Kim, S. I. (2015). Longitudinal investigation into the role of perceived social support in adolescents' academic motivation and achievement. *Journal of Educational Psychology*, *107*(3), 821.

Subramani, C., & Yenkatachalam, J. (2019). Parental expectation and its relation to academic stress among school students. *International Journal of Research and Analytical reviews (IJRAR)*, *6*(2), 95-99.

Sung, Y. T., Chao, T. Y., & Tseng, F. L. (2016). Re-examining the relationship between test anxiety and learning achievement: An individual-differences perspective. *Contemporary Educational Psychology*, *46*, 241-252.

Taormina, R. J. & Gao, J. H. (2013). Maslow and the motivation hierarchy: Measuring satisfaction of the needs. *American Journal of Psychology*, *126*(2), 155-177.

Thansuri, R., & Zinna, (2021). Test anxiety, work engagement and academic buoyancy among high school students. *Journal of Psychiatry and Psychology Research JPPR*, *5*(4), 562-566.

Thomas, C. L., Cassady, J. C., & Finch, W. H. (2018). Identifying severity standards on the cognitive test anxiety scale: Cut score determination using latent class and cluster analysis. *Journal of Psychoeducational Assessment*, *36*(5), 492-508.

Unal-Karaguven, M. H. (2015). Demographic factors and communal mastery as predictors of academic motivation and test anxiety. *Journal of Education and Training Studies 3*(3) 1-12.

Valerio, K. (2012). Intrinsic motivation in the classroom. *Journal of Student Engagement: Education Matters*, *2*(1), 30-35.

Vallerand, R.J., Pelletier, L.G., Blais, M. R., Briere, M. M., Senecal, C. B., & Valliere, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement, 52*, 1003-1017.

Von der Embse, N., Jester, D., Roy, D., & Post, J. (2018). Test anxiety effects, predictors, and correlates: A 30-year meta-analytic review. *Journal of Affective Disorders*, *227*, 483-493.

Wang, G., Rashid, A. M., (2021). Relationship between self-efficacy and test anxiety among Chinese students: The mediating role of academic motivation. *Elementary Education*, *20*, 1763-1772

Yanyan, Z., Andrew, H., Daniel, W., & Nicola, A. (2021). Examining the contribution of motivation, adaptability, and buoyancy to course satisfaction and test anxiety among university students. *Psychology of Education Review*, *45*(2),75-79.

Yasar, O. M., & Turgut, M. (2020). Unemployment anxiety of last year college students. *Cypriot Journal of Educational Sciences*, *15*(1), 56-64.

Zhang, N., & Henderson, C. N. (2019). Predicting stress and test anxiety among 1st-year chiropractic students. *Journal of Chiropractic Education*, *33*(2), 133-139.

Zinna, A.R., Thanusri, R. (2021). Test anxiety, Work Engagement and Academic Buoyancy Among High School Students. *Journal of Psychiatry and Psychological Research 5*(4), 562-566.

APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

FACULTY OF EDUCATIONAL FOUNDATION

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

QUESTIONNAIRE FOR STUDENTS

Dear Participant,

We want to ask you some questions about your academic career. This questionnaire takes about 45 minutes to complete. Read each sentence carefully and then using a given scale, kindly select the number that best describe YOU and place a tick **(☑)** on it. Do not let how you respond to one statement affect how you respond to others. No answer is right and no answer is wrong.

SECTION A

Demographic Information

Please indicate your gender: Sex: Male ( ) Female ( )

SECTION B

Westside Test Anxiety Scale

Instructions: Rate each of the following statements about you on a scale of strongly agree to strongly disagree. Use the five-point rating system below.

5=Strongly Agree (SA), 4=Agree (A), 3=Neutral (N), 2= Disagree (D), 1=Strongly Disagree (SD).

Item	Statements	SA5	A4	N3	D2	SD1

1	The more an important exam approaches the more it becomes difficult for me to focus on the subject notes.					
2	Anytime I learn, I become concern that I will not recall the content in the exam time.					
3	At the time of big test, I worry that I am performing poorly or that I might fail.					
4	Important tests cause me to lose attention, and I have trouble recalling the content I understood prior to the test.					
5	It is only after the exam is done that; I can remember the answers to the questions.					
6	Before a big test, I worry so much that I become exhausted to deliver my best effort during the test.					
7	When I have important tests, I feel off or not entirely myself.					
8	When I'm taking major tests, I sometimes notice that my thinking get distracted.					
9	I stress about whether I performed well enough after a test.					
10	Writing assignments are difficult for me, and I try to avoid them whenever possible.					

Academic Motivation Scale

Instructions: Please use the seven-point scoring system below to express your level of agreement or disagreement with each of the statements highlighting key reasons you attend high school.

1=Strongly Disagree, 2=Disagree, 3=Somehow Disagree, 4=Neutral, 5=Somehow Agree (A), 6=Agree, 7=Strongly Agree.

Item	Statements	1	2	3	4	5	6	7
1	I would not be able to obtain a high-paying career later on if I simply had a junior high school diploma.							
2	Because I enjoy and feel satisfied when I learn something new.							
3	Because I believe that graduating from high school will better educate myself to the selected career.							
4	As a result of the strong emotion I feel anytime I share my thoughts with others.							
5	Sincerely, I have no idea; I genuinely believe that my time in education is being wasted.							
6	Because it makes me happy to outperform for myself when studying.							
7	I wanted to prove to myself that I can finish high school.							
8	In order to eventually land a more reputable job.							
9	As a result of the joy I have anytime I find new, undiscovered things for the first time.							
10	Since it will eventually allow me to be in the employment market in a profession that I enjoy.							
11	As a result of the pleasure I derive from reading excellent writers.							
12	When I first started high school, I had very positive reasons to go, but now I'm not sure if I							

	should keep going.							
13	For the joy I feel when I beat my own records in accomplishment of my gaols.							
14	Because I feel superior when I do well in high school.							
15	I want to live a happy life someday.							
16	For the pleasure I get in learning more about subjects that interest me.							
17	I will be able to choose my career path more wisely as a result of this.							
18	I enjoy reading certain authors' works so much that I find myself entirely fascinated in their words.							
19	I don't understand why I attend high school, and to be really honest, I don't care.							
20	For the feeling of fulfilment I get from completing challenging academic tasks.							
21	To demonstrate to myself my intelligence.							
22	To eventually earn a higher income.							
23	Because it allows me to continue learning about a range of subjects that I find interesting.							
24	I think that a few more years of study will help me become a more competent worker.							
25	As a result of good feeling, I get from reading about numerous fascinating topics.							
26	I'm not certain because I struggle to understand what I do in school.							
27	Because my pursuit of academic greatness in high school gives me a sense of personal gratification.							
28	I want to demonstrate to myself that I can achieve in my academic endeavours.							

SECTION D

Academic Buoyancy Scale

Instruction. Please rate each of the following statements according to how well you can handle difficulties and challenges that are common in the normal course of your academic life using the scale below. How do you agree with each of the following statement on a scale of 5-1 where: **5= Strongly Agree (SA), 4= Agree (A), 3= Neutral (N), 2= Disagree (D), 1= Strongly Disagree (SD).**

Item	Statements	SA 5	A 4	N 3	D 2	SD 1
1	If I put in extra effort, I think I can do my coursework well.					
2	If I study in advance, I think I can succeed on my exams.					
3	If I read the lesson ahead, I think I can contribute well to the class discussion.					
4	I think I will be able to complete my demands, whenever the deadlines draw closer.					
5	I am confident that I am capable of handling challenging coursework.					
6	I think I can manage the burden that comes with numerous class requirements.					
7	In my opinion I have the potential to get more involved in the activities I do.					
8	I have faith in my skills to manage unforeseen situations.					
9	I can simply follow my plans and accomplish my goals.					
10	When faced with a challenge, I am certain that I can find a solution.					
11	At class recitations, I'm not confident in my response.					

12	Sometimes when I work by myself, I feel uncertain.					
13	I frequently have doubts concerning the ideas I present in class.					
14	I frequently don't know how to complete my homework.					
15	Most of the time, I am not certain if I will pass in the examination.					
16	I don't think the explanations I give in class are accurate.					
17	If I studied, I'm not certain if it would enable me do well on my tests.					
18	On my exams, I'm not sure if my responses are accurate.					
19	I'm not certain how I will succeed in my subjects.					
20	I'm not certain how I can keep from performing poorly in my classes.					
21	Any time I'm confused about something, I keep reading the passage till I get.					
22	Anytime I don't grasp a subject, the instructor is teaching in class, I ask him about it.					
23	I participate in group projects that we complete in class.					
24	I offer to take charge of a group during a class activity.					
25	I want to finish school in time.					
26	I want to finish my education with distinction.					
27	I place a lot of value on my education.					
28	I appreciate being given the opportunity to go to school.					
29	I like going to school.					
30	I like to learn in school					

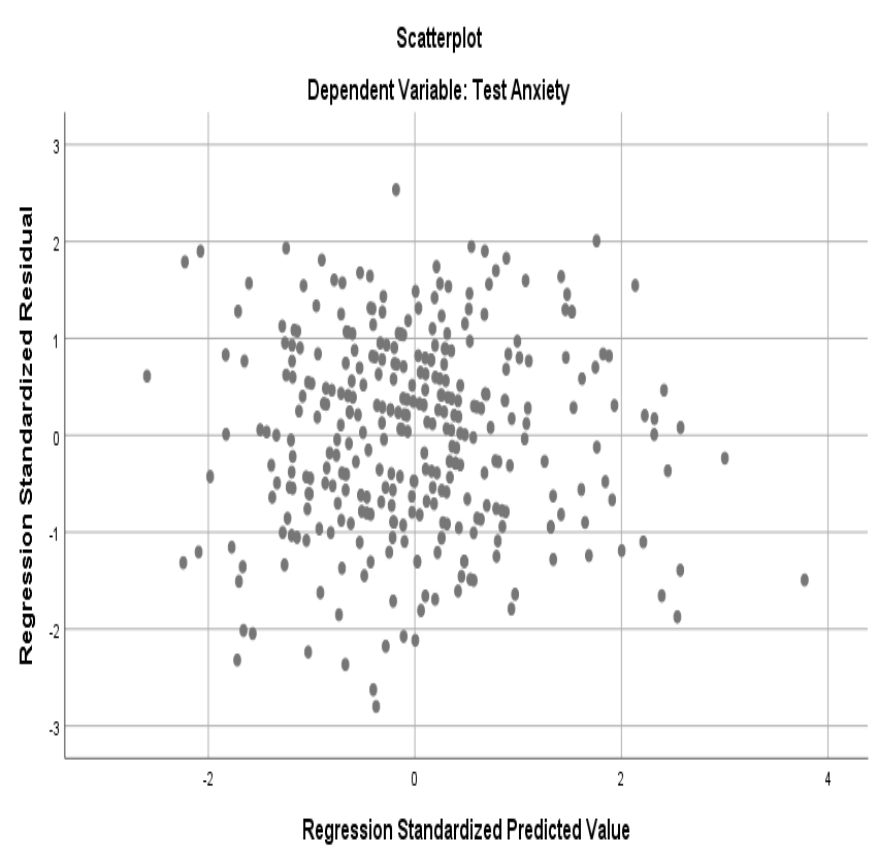
31	When exams are approaching, I become anxious.					
32	When I receive poor exam results, I worry.					
33	When I have many assignments, I become very anxious.					
34	I worry when I have trouble in my studies.					
35	When I don't prepare well enough for my tests, I get nervous.					
36	I get anxious anytime an examination is approaching.					
37	When I'm taking a test, I become anxious.					
38	Every time I have to recite in class, I become anxious.					
39	Every time I'm requested to deliver my academic work in front of the class, I get anxious.					
40	Every time I'm tasked with leading a team in a task, I get anxious.					
41	My relationship with my teacher is good.					
42	My teacher is respectful to me.					
43	My teacher is someone I greatly respect.					
44	My teacher cherishes his interaction with us.					
45	Even outside of the classroom, my teacher engages with us.					
46	Outside of the classroom, my teacher and I are close friends.					
47	My teacher is interested in his students' individual situations.					
48	I may discuss my academic issues with my teacher.					
49	My teacher respects my individual views.					
50	My teacher respects my viewpoints on topics raised in and out of class.					

APPENDIX B

SCATTER PLOT SHOWING NORMALITY OF THE STYDY VARIABLES

Fig 6

Scatter Plot showing normality of the study variables



APPENDIX C

NORMALTY PLOT FOR THE STUDY VARIABLES

Fig 3

Normality plot for Test Anxiety

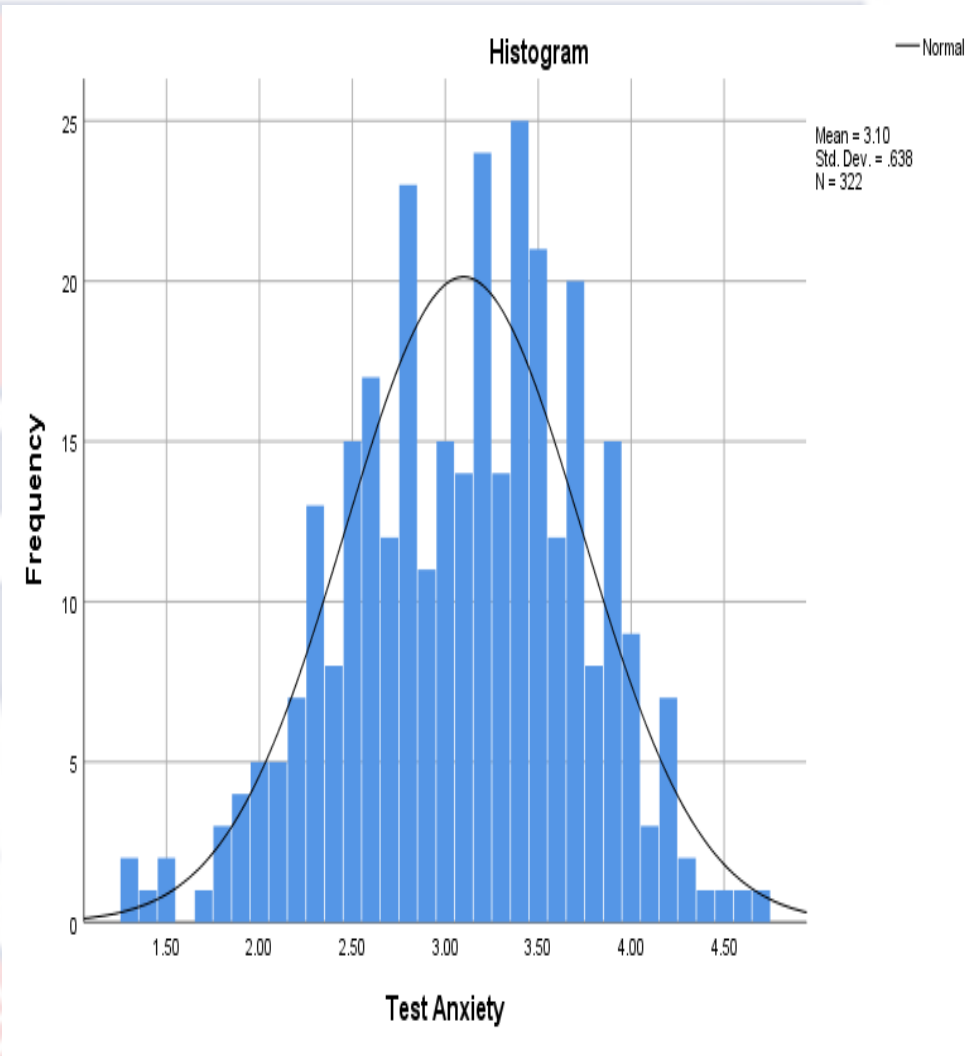


Fig. 4

Normality plot for Academic Motivation

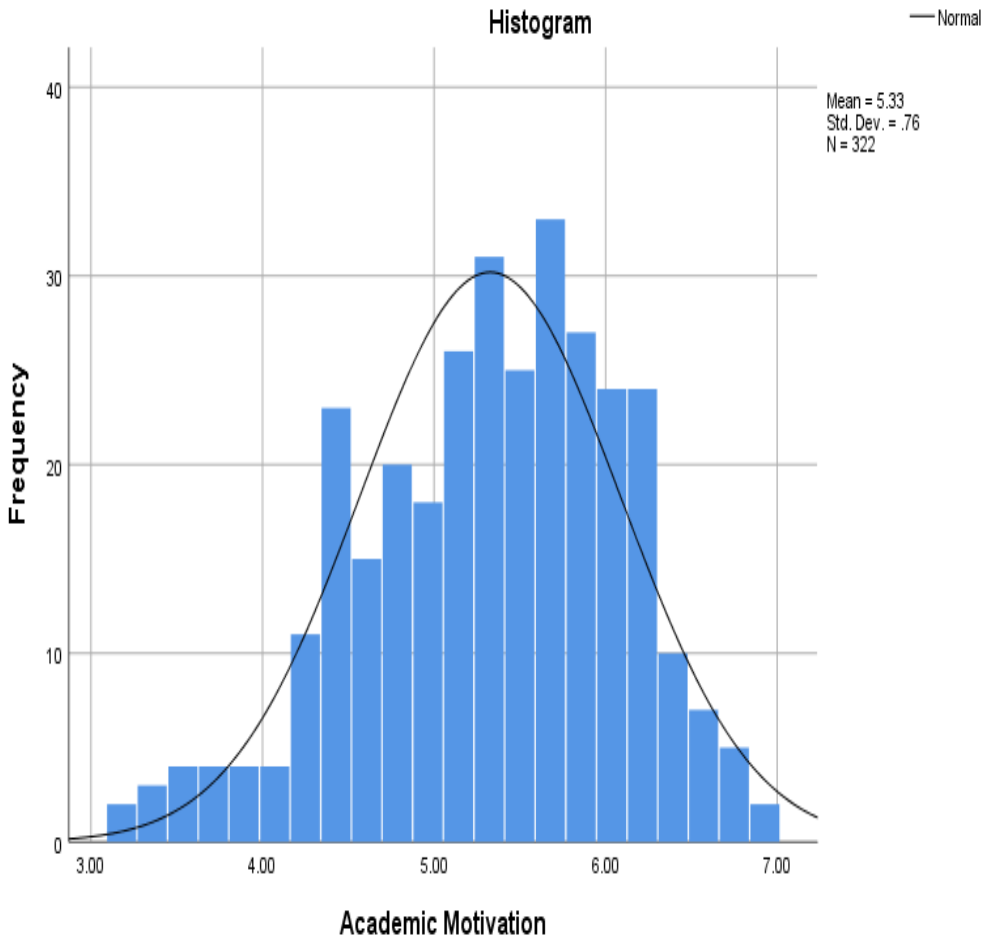
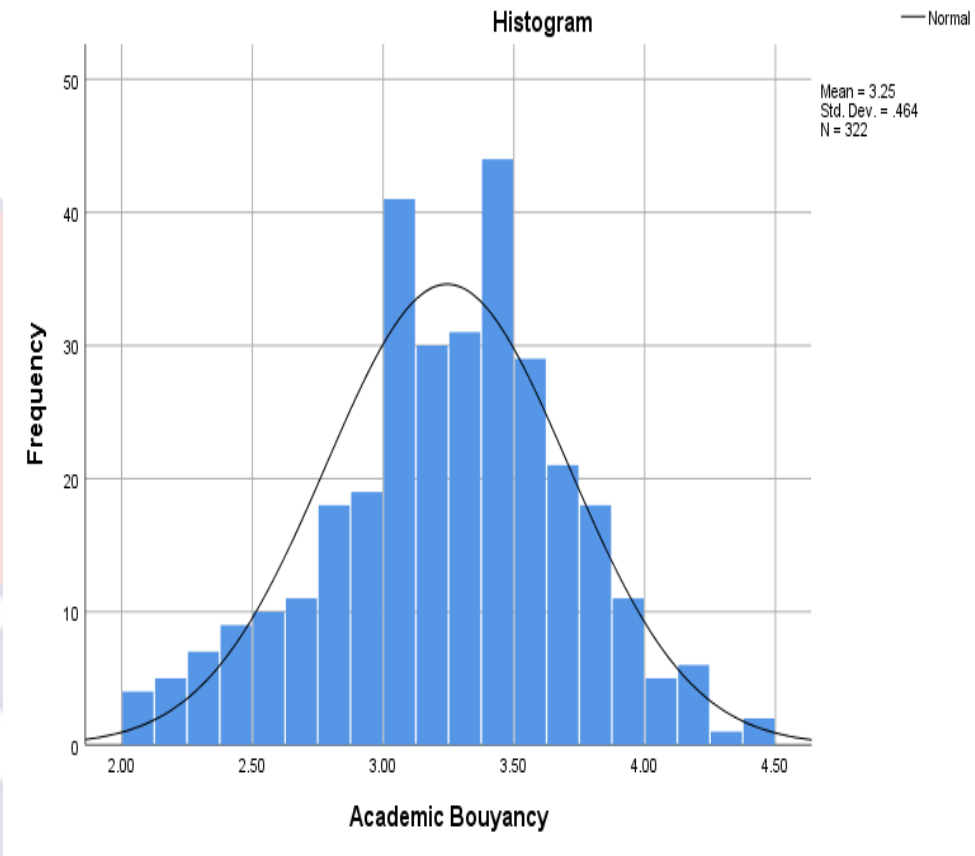


Fig. 5
Normality plot for Academic Buoyancy



APPENDIX D

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697
Email: dep@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref:

Your Ref:

19th July, 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MR. HENRY PETER SENIOR ASIAMAH

We introduce to you Mr. Asiamah, a student from the University of Cape Coast, Department of Education and Psychology. He is pursuing Master of Philosophy degree in Educational Psychology and he is currently at the thesis stage.

Mr. Asiamah, is researching on the topic:

"ACADEMIC BUOYANCY, ACADEMIC MOTIVATION AND TEST ANXIETY"

We would be most grateful if you could provide him the opportunity and assistance to collect data for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Hilda A. Tartey (Mrs.)
Administrative Assistant
For: **HEAD**

APPENDIX E

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref.: CES/ERB/ucc-edu/v6/22-74 Date: 27th July, 2022

Your Ref: .....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Henry Peter Snr. Asiamah Reg. No EF/PPE/20/0007 is a M.Phil / Ph.D. student in the Department of Education and Psychology in the College of Education Studies University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Academic buoyancy, academic motivation and test anxiety among Senior High School Students of the Ejisu Municipality

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

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