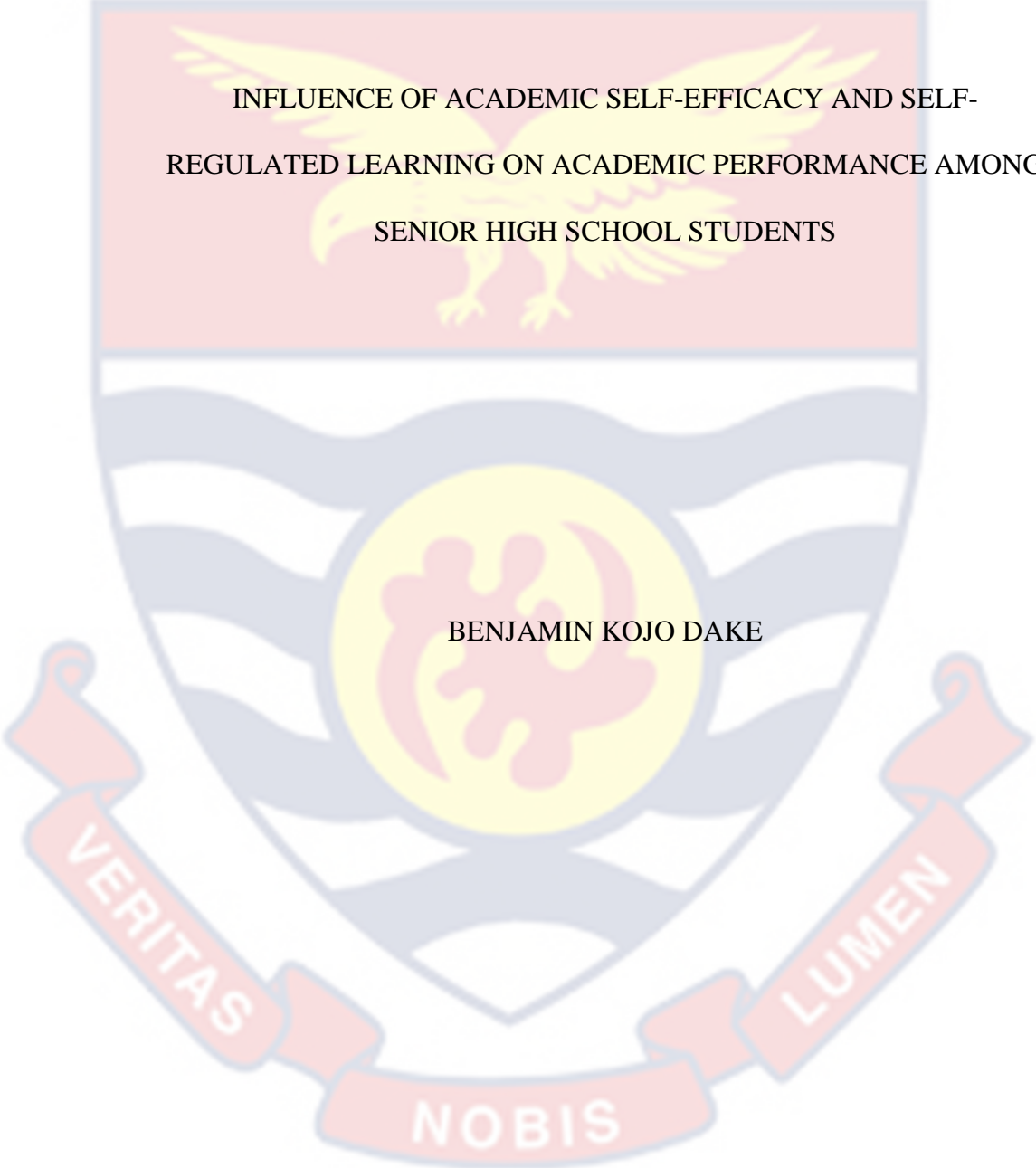UNIVERSITY OF CAPE COAST

INFLUENCE OF ACADEMIC SELF-EFFICACY AND SELF-REGULATED LEARNING ON ACADEMIC PERFORMANCE AMONG SENIOR HIGH SCHOOL STUDENTS

BENJAMIN KOJO DAKE

2023

UNIVERSITY OF CAPE COAST

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REGULATED LEARNING ON ACADEMIC PERFORMANCE AMONG

SENIOR HIGH SCHOOL STUDENTS

BY

BENJAMIN KOJO DAKE

Thesis submitted to the Department of Education and Psychology of the

Faculty of Educational Foundations, College of Education Studies, University

of Cape Coast, in partial fulfilment of the requirements for the award of

Master of Philosophy degree in Educational Psychology.

JUNE 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.

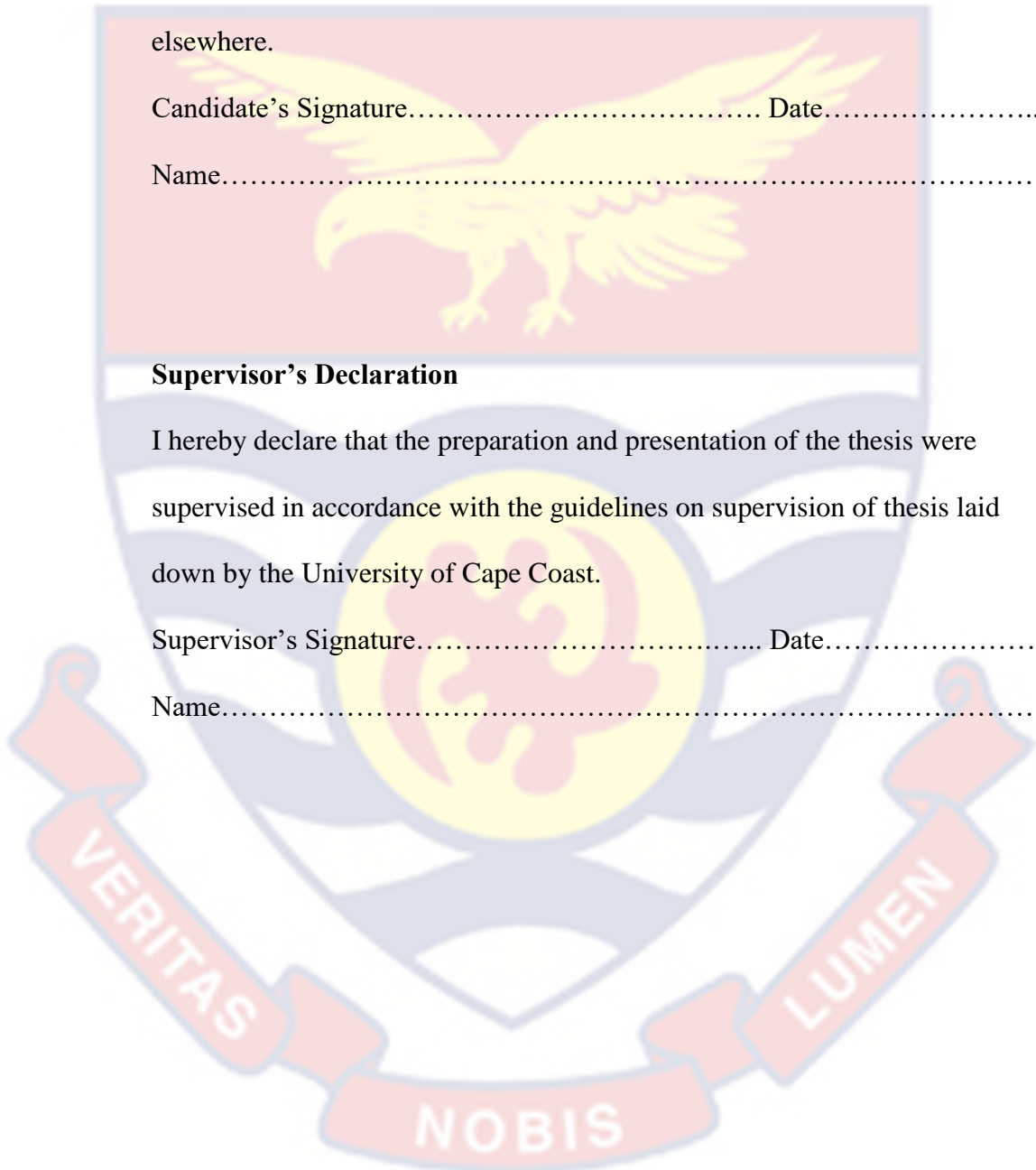Candidate's Signature……………………………. Date…………………..

Name………………………………………………………..……………

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were

supervised in accordance with the guidelines on supervision of thesis laid

down by the University of Cape Coast.

Supervisor's Signature……………………………….. Date……………………

Name………………………………………………………….………….

ABSTRACT

Understanding the factors that contribute to students' academic performance is crucial for enhancing learning outcomes and educational quality. Academic self-efficacy and self-regulated learning have emerged as significant psychological constructs that influence how students approach and engage in their academic pursuits.This study investigates the influence of academic self-efficacy and self-regulated learning on the academic performance of Senior High School students in Ho Municipality. A sample of 322 form two students were used , employing a descriptive survey design with questionnaires and academic performance tests as primary data collection tools. Research questions were answered using mean scores and standard deviations, while hypotheses were tested using Pearson's Product Moment Correlation Coefficient and Multiple linear regression, as well as independent sample t-tests. Results indicate that Senior High School students in Ho Municipality demonstrate high levels of academic self-efficacy and self-regulated learning. Self-regulated learning significantly predicts academic performance, highlighting a significant relationship between these variables. Notably, no significant differences in academic self-efficacy and self-regulated learning were found based on gender. Based on these findings, it is recommended that Senior High School teachers in Ho Municipality integrate self-regulated learning strategies into their teaching practices by guiding students to set goals, monitor their progress, and adjust learning strategies in response to feedback. Such initiatives are expected to enhance students' academic performance by fostering autonomy and effective learning habits.

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KEYWORDS

Academic self-efficacy

Self-regulated learning

Academic performance

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Special thanks to my lecturers in the University, my colleagues, friends, and loved ones for their guidance and constant encouragement which kept me motivated throughout this study.

God bless each and every one of them for the sacrifices and love extended to me.
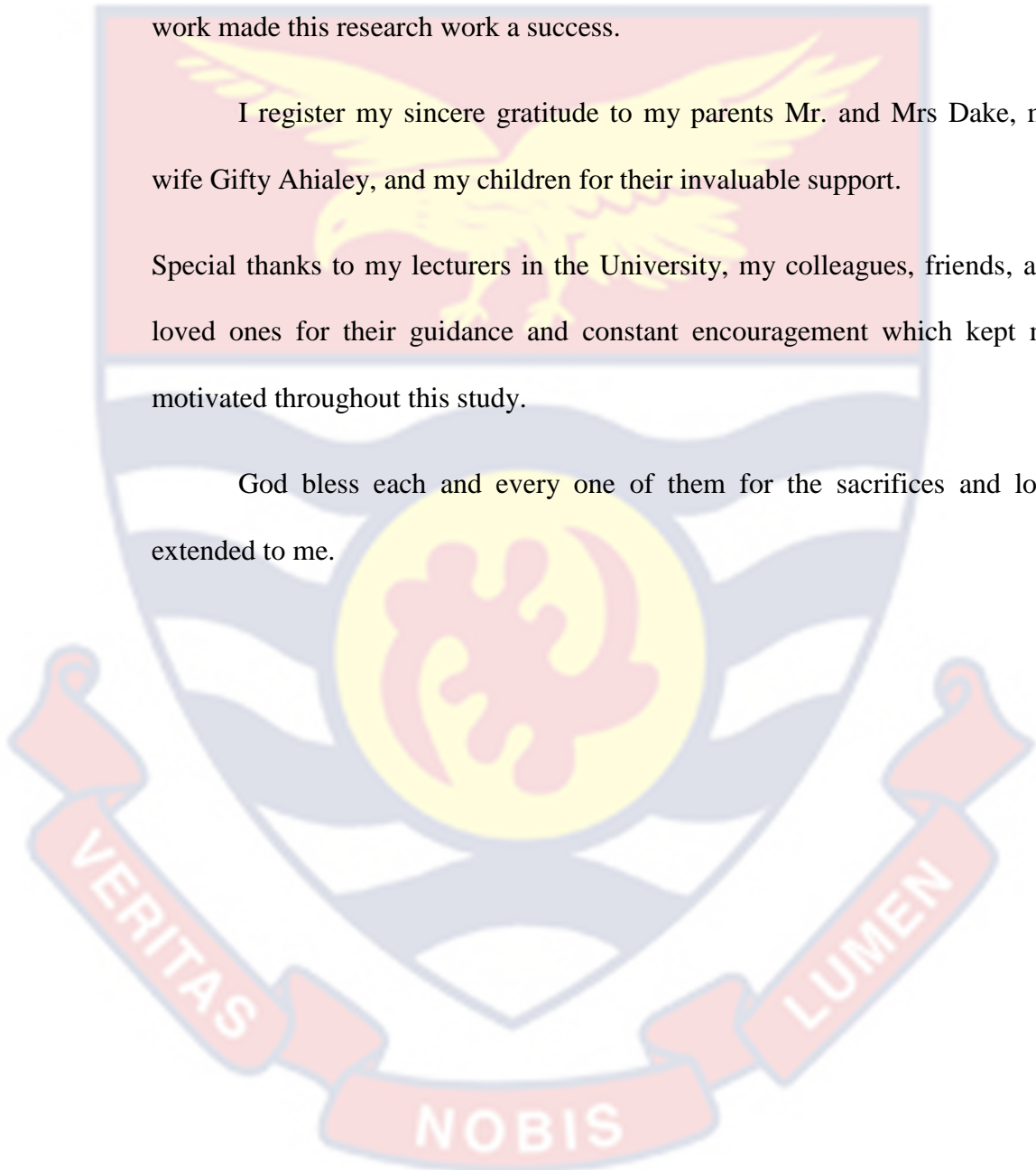
DEDICATION

To my lovely wife Gifty Ahialey and my children, Keli and Like

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CHAPTER ONE

INTRODUCTION

Background to the Study

Academic performance is a paramount factor in every educational setting across the world. Ghana has made significant investments in the pre-tertiary education system in recent years to increase students' academic performance, particularly in Senior High Schools. Despite these investments, learning outcomes in the West African Secondary School Examinations, particularly in the four core courses, have not been progressively stable over time. WASSCE results fluctuate widely from year to year without any progressive definitive pattern (Abreh, Owusu & Amedahe, 2018). The 2020 WASSCE Chief examiner's report showed a decline in percentage performance. Specifically, this decline was recorded in Social Studies and Integrated Science which are two out of the four core subjects studied in second cycle institutions in Ghana. The English Language and Core Mathematics experienced a marginal increase in percentage performance which was below the expectation of stakeholders (Ministry of Education, 2019).

The academic performance of any student is the result of a complex interaction of various factors, such as study habits, and personality traits. In addition to these factors are some psychosocial factors which include; attitude, self-efficacy, and students' interaction in the social context (Nepomuceno & Turra, 2020; Arora & Singh, 2017; Brophy, 2001). Academic self-efficacy plays a crucial role in shaping how students approach their studies and engage in various academic activities. As a result, it can be regarded as a significant

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indicator or predictor of learners' academic performance (Klassen & Usher, 2010).

Closely linked to academic performance of learners is the concept of self-regulated learning. Empirical evidence consistently underscores the close relationship between self-regulated learning and academic performance. Students who exhibit strong self-regulation skills consistently demonstrate higher academic outcomes across various subjects and educational levels. By actively monitoring their own progress, adjusting their strategies, and adapting their learning approaches, they can optimize their study efforts, deepen their understanding, and retain information more effectively (Caprara et al., 2008).

Yan (2020) indicated that students' self-directed procedures, their thinking processes, and the specific actions they take to achieve academic goals and objectives they have set for themselves constitute self-regulated learning. He added that students self-regulate their learning through self-imposed exigencies, time management, self-monitoring, and goal-setting, and all these enable them to attain their personal goals in the academic environment.

The hallmark of self-regulated learners is the fact that they set their academic goals quite clearly and do all within their capacity to achieve significant success concerning their goals. The purpose of their academic goals is always well-defined (Xiao, Yao, & Wang, 2019). Active participation and enthusiasm in academic work characterize students who self-regulate their learning. Such students define short- and long-term educational goals, track their progress, and can meet the standards they have set for themselves. It is also observed that these kinds of learners reflect on the progress they make in

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their academic work and appear more organized in tackling their academic challenges (Daniel, Wang & Berthelsen, 2016).

Among the several models of self-regulated learning developed, only a few among them appear more comprehensive and easily understood, and applicable in the classroom environment particularly the models developed by Zimmerman and Moylan (2009) and Pintrich (2000). Both models have proven to be more useful in the educational setting (Dignath et al., 2008). The four (4) major assumptions below are common to all the models of self-regulated learning (Pintrich, 2004). According to him, self-regulated learners are usually not passive but active players who create meaning, goals, and strategy. They actively examine the context of information available and can identify weaknesses to monitor and influence their decision on encoding a particular piece of information. They also frequently assess their comprehension level and take steps to make suitable adjustments when necessary. Self-regulated learners recognize distractions and utilize personal characteristics to improve their performance on academic tasks.

As studies have linked self-regulated learning strategies to considerable academic achievement, stakeholders must ensure that the educational system produces self-regulated learners (Rotgans & Schmidt, 2009; Schloemer & Brenan, 2005; Schun, 2005). Evidence gathered through qualitative studies (Pintrich, 2004; McMillan, 2010) revealed that through resource management methods, and metacognitive and cognitive strategies, students self-regulated their learning and demonstrated high success in accomplishing their academic tasks.

The socio-cognitive theory developed by Bandura (1977) recognizes that certain elements which influence the individual internally as well as the effect of external social systems both explain the processes that drive individuals to regulate their behavior. One of these internal self-influences is the variable, self-efficacy. Self-efficacy talks about how the individual assesses their ability to plan and carry out a task successfully in order to achieve set targets (Bandura, 1997). The way self-efficacy influences an individual's success at tasks has been studied in numerous psychological disciplines including the academic discipline. Studies have to be dedicated to determining how the performance of learners is affected by their level of self efficacy (Robbins, Lauver, Le, David, & Langley, 2004).

There are many forms of self-efficacy; however, in an educational setting, it is examined as academic self-efficacy. This concept delves deeply into how individuals perceive their capabilities within the academic sphere, specifically in achieving their educational objectives. It narrows the broader scope of general self-efficacy to concentrate specifically on one's confidence and judgments regarding success within the academic environment. Thus, academic self-efficacy pertains to learners' assessments of their potential to accomplish their academic aspirations effectively.

Albert Bandura pioneered research on self-efficacy in 1977. He argues that the behavior of individuals is largely influenced by their level of self efficacy. Bandura emphasizes that a persistent sense of self-efficacy influences behavior and has a "directive influence on the choice of activities and settings, but, through expectations of eventual success, it can affect coping efforts once they are initiated" (Bandura, 1977 p. 194).

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Bandura's self-efficacy theory is generally acknowledged in education. This acknowledgment is based on the ability of this variable to provide more clarification for variability in educational outcomes (Klassen & Usher, 2010; Zimmerman & Cleary, 2006). The self-efficacy theory has explained that concepts such as self-esteem and self-concept are different from the concept of self-efficacy. This is important so that self efficacy is not misconstrued to mean these other variables in the academic environment (Watson, Suls, & Haig, 2002). Brewer and Gardner (1996) explained that self-concept refers to an individual's sense of uniqueness in identity and how this identity is differentiated from others. The overall internal feeling about how people perceive themselves is a common denominator to these variables.

Research in the educational setting reveals that academic self efficacy plays a critical role in the academic success of learners. A relationship has been established between this variable and the academic performance of students. Most of these studies were conducted in colleges and universities in Europe and America (Robbins et al., 2004). Research also suggests that the variable, academic self-efficacy, is not only a central self-monitoring process in the social cognitive theory but also appears to be a key motivational variable in the models of self-regulated learning developed by researchers.

Several studies continue to emphasize the significance of academic self-efficacy as a predictor of academic performance other than the mental capacity of learners as well as their prior academic achievements (Furnham, 2012; Chow, 2011; Klassen & Usher, 2010; Schick & Phillipson, 2009; Baird, Scott, Dearing, & Hamill, 2009).

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Some other studies on the other hand have also found a relationship between these two variables but stressed that this relationship is however moderate (Tus, 2020). This implies that not all studies see academic self-efficacy as a strong predictor of the academic success of students.

Self-efficacy offers the foundation for human motivation. Humans need to believe that their actions are capable of producing a certain outcome to serve as an incentive for them to initiate those tasks. This feeling makes them persevere even in the face of difficulties. Academic self-efficacy makes students persevere and those who are efficacious increase their academic performance (Jane, 2021).

Generally, self-efficacy is influenced mainly by: the enactive mastery experience of the individual derived from hands-on experience; vicarious experiences which dwell on other people's experience; verbal persuasion which is said to be appraisal or feedback from others; and finally, the physical and affective states which include, anxiety, feeling, disposition, pain, and fatigue (Hodges, Stackpole & Cox, 2008).

Self-efficacy greatly influences a person's academic performance (Zumbrunn, Tadlock & Roberts, 2015). Research has proven that highly efficacious learners have a great chance of utilizing more cognitive strategies and handling tasks more thoughtfully compared to less efficacious students.

Self-efficacy tends to influence motivation which enables the students to persevere even when faced with challenges. Academic Self-efficacy is a significant predictor of academic achievement. Therefore, a lack of self-efficacy can have an impact on a person's learning process (Chrysidis, Turner & Wood, 2020)

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Self-efficacy and self-regulation are closely linked to learning. Both variables are based on factors that influence how students learn. Self-regulation looks at a person's ability to monitor and manage his/ her behaviour or thoughts changing them to match the demands of the situation. Academic self-efficacy explains learners' belief in the ability to achieve academic goals. Researchers believe that the self-regulation ability of learners possibly could be mediated by self-efficacy (Zimmerman & Schunk, 2012).

Although, there have been many scientific studies on the variables that influence the academic performance of learners in Ghana, factors that are established to influence academic performance must be studied frequently because the nature of students, the curriculum, the psychological classroom environment, and technology keep changing (Obrentz, 2012). This study, therefore, investigated the influence of academic self-efficacy and self-regulated learning on academic performance in the Ho Municipality.

Statement of the Problem

Self-regulated learning (SRL) competency, characterized by learners' ability to assess and monitor their progress, plays a crucial role in their academic success and responsibility for learning outcomes (Jarvela & Jarvenoja, 2011). This competency allows students to set targets, employ various learning techniques, and persistently strive for academic achievement by leveraging their strengths and addressing weaknesses (Xiao, Yao, & Wang, 2019; Metallidou, 2013; Sadi & Uyar, 2013; Schunk, 2014; Zimmerman & Schunk, 2012).

Research underscores the significance of academic self-efficacy and the use of SRL strategies in enhancing students' academic performance

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(Cleary & Kitsantas, 2017; Cerezo et al., 2019). Students with high academic self-efficacy exhibit confidence in their abilities and effectively utilize SRL competencies to tackle challenging academic tasks, thereby achieving mastery (Julia, Latifah & Hernawati, 2018; Agustiani, Cahyad, & Musa, 2016). Conversely, students lacking in these abilities may struggle to maintain focus and motivation, impacting their academic outcomes negatively (Zumbrunn, Tadlock & Roberts, 2015; Elstad & Turmo, 2010; Clarebout, Horz, & Schnotz, 2010).

Despite these findings, recent studies have yielded conflicting findings regarding the relationship between academic self-efficacy, SRL, and academic performance (Brown, Peterson, & Yao, 2016; Daniel, Wang & Berthelsen, 2016; Lucieer et al., 2016; Gebka, 2014; Cho & Lee, 2013; Khan, 2013; Ouweneel-Schanteli, 2013; Hsieh et al., 2012; Breso et al., 2011). Some studies report limited or no significant correlation, challenging previous assertions and necessitating further investigation into these variables' impact on academic outcomes.

Moreover, the exploration of cross-cultural differences in the influence of academic self-efficacy and SRL on academic performance remains largely unexplored, particularly in contexts outside of Europe and America (Honicke & Broadbent, 2016). Existing research predominantly originates from Western contexts, with minimal representation from regions in Africa, particularly Ghana. It is difficult to efficiently integrate the results of research conducted abroad for policy development and decision-making in Ghana due to variations in cultural and socialisation processes, which impact an individual's views and behaviour. This, therefore, requires that a study be conducted in

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Ghana particularly in the Ho Municipality to unravel the influence these variables have on learners' performance in schools.

It was also noteworthy that most of the studies reviewed were carried out in Colleges and Universities where Grade Point Average (GPA) was used as the sole measure of the performance of these respondents. This is unlike the situation in second-cycle institutions where GPA is not used.

Furthermore, the evolving academic environment, coupled with the increasing integration of technology in classrooms, presents dynamic challenges and opportunities that affect student learning experiences and outcomes (Obrentz, 2012). This necessitates continuous research to adapt educational strategies to the changing needs and preferences of students in contemporary educational settings.

Therefore, this study seeks to examine the influence of academic self-efficacy and self-regulated learning on the academic performance of Senior High School students in the Ho Municipality of the Volta Region, Ghana. By addressing these gaps and exploring these variables within a specific cultural and educational context, this research aims to provide insights that can inform policy decisions and educational practices tailored to enhance student academic achievement and well-being.

Purpose of the Study

The main purpose of the study was to examine how academic self-efficacy and self-regulated learning influence the academic performance of students in Senior High Schools within the Ho Municipality. Specifically, the study examined:

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- the level of academic self-efficacy among the Senior High School students in the Ho Municipality.

- the level of Self-regulated learning skills among Senior High School students in the Ho Municipality.

- the relationship that exists between academic self-efficacy and the academic performance of Senior High School students in the Ho Municipality.

- the relationship between self-regulated learning and academic performance of Senior High School students in the Ho Municipality.

- whether academic self-efficacy and self-regulated learning predicted the academic performance of Senior High School students in the Ho Municipality.

- whether there were differences between the academic self-efficacy of male and female Senior High School students in the Ho Municipality.

- whether there were differences between self-regulated learning of male and female Senior High School students.

Research Questions

1. What is the level of academic self-efficacy among Senior High School students in the Ho Municipality?

2. What is the level of self-regulated learning among Senior High School students in the Ho Municipality?

Research Hypotheses

H_{o1}: There is no statistically significant relationship between academic self-efficacy and the academic performance of Senior High School students in the Ho Municipality.

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H_1: There is a statistically significant relationship between academic self-efficacy and academic performance of Senior High School students in the Ho Municipality

H_{o2}: There is no statistically significant relationship between self-regulated learning and the academic performance of Senior High School students in the Ho Municipality.

H_2: There is a statistically significant relationship between self-regulated learning and the academic performance of Senior High School students in the Ho Municipality.

H_{03}: Academic self-efficacy and self-regulated learning will not predict the academic performance of Senior High School students in the Ho Municipality.

H_3: Academic self-efficacy and self-regulated learning will predict the academic performance of Senior High School students in the Ho Municipality.

H_{04}: There is no statistically significant difference between academic self-efficacy of male and female Senior High School students in the Ho Municipality.

H_4: There is a statistically significant difference between academic self-efficacy of male and female Senior High School students in the Ho Municipality.

H_{05}: There is no statistically significant difference between self-regulated learning of male and female Senior High School students in the Ho Municipality.

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H$_5$: There is a statistically significant difference between self-regulated learning of male and female Senior High School students in the Ho Municipality.

Significance of the Study

Firstly, this study will provide classroom teachers in the Ho Municipality with valuable insights into the levels of academic self-efficacy and self-regulated learning among Senior High School students. Prior to this research, the specific nature and extent of these variables within second cycle institutions in the Municipality remained largely unknown. Armed with this knowledge, teachers will be better equipped to tailor their instructional approaches and pedagogical strategies to enhance students' academic self-efficacy and foster their competency in self-regulated learning. By implementing targeted interventions, teachers can effectively support students in setting academic goals, monitoring their progress, and developing effective learning strategies. Consequently, this proactive approach is expected to contribute to improved academic performance among students in the Municipality.

Secondly, the findings of this study will be instrumental for the Ghana Education Service (GES), Ministry of Education, and the National Council for Curriculum and Assessment (NaCCA) in understanding the interplay between academic performance in schools and students' self-regulated learning abilities. This understanding is pivotal for the design and implementation of a comprehensive curriculum that aligns with the educational needs and aspirations of students in Ghana. By integrating findings from this research, educational policymakers can formulate evidence-based strategies to enhance

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the academic self-efficacy of students and further develop their skills in self-regulated learning. This holistic approach aims to create a supportive learning environment that nurtures students' academic growth and overall well-being.

Furthermore, the study is anticipated to contribute to the knowledge base of school psychologists and counselors. Armed with empirical insights into the factors influencing students' learning outcomes, these professionals can develop targeted interventions and support systems to assist students in improving their academic performance. By fostering a supportive environment that promotes self-awareness, goal-setting, and effective learning strategies, psychologists and counselors can empower students to overcome academic challenges and achieve their full potential.

Finally, the research findings will serve as a foundational platform for future studies exploring related themes and variables within educational contexts. By expanding upon the existing literature, future researchers can delve deeper into the nuances of academic self-efficacy, self-regulated learning, and their impact on educational outcomes across diverse settings and populations. This ongoing research trajectory is essential for the continual enhancement of educational practices and policies aimed at optimizing student learning experiences and outcomes.

Delimitation

The study was delimited to Form Two (2) students in co-educational public Senior High Schools in the Ho Municipality. Form one and form three students were not used as participants in this study because Form One (1) students had spent less than three (3) months in Senior High School and had not covered the topics used in the academic performance test. Form Three (3)

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students on the other hand were preparing for their WASSCE and could not get enough time to participate in the study.

This study was also delimited to academic self-efficacy and not any other type of self-efficacy. Self-regulated learning in this research applies to the classroom only and not any other field.

In this study, academic achievement was restricted to student's average performance in mathematics, integrated science, English language, and social studies tests given to respondents. The four core subjects are studied by all Senior High School students in the Ho Municipality. As a result, the four core subjects were appropriate for use in the academic performance test as a measure of respondents' academic performance.

Limitation

Because the study was restricted to public Senior High Schools in the Ho Municipality, the findings could not be generalised to all Senior High Schools in the Municipality particularly the private Senior High Schools.

Operational Definition of Terms

Academic Performance: This referred to the average of a student's scores in maths, integrated science, English language, and social studies tests.

Academic Self-efficacy: referred to students' beliefs in their ability to achieve academic success.

Self-regulated learning: It is a cyclical process in which a student plans for an academic task, monitors his/her progress in the performance of the task, and then reflects on the outcome.

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Organization of the Study

This research report is structured into five main chapters. The first chapter gives the background to the study, presents the statement of the problem, states the formulated research questions and hypotheses, highlights the significance of the study, delimitation, limitation of the study, operational definition of terms included in the study, and finally ends with the organization of the study.

Chapter two of the study reviews the literature related to this study. This was reviewed under major headings which included theoretical review, conceptual review, and empirical review.

The next chapter which is chapter three of the study defines the research design of the study, the population of the study, sample and sampling techniques used, research instruments used in data collection, the procedure used in the data collection process of the study, data analysis, and chapter summary.

Chapter four presents analyses of data and a discussion of the findings. Chapter five which is the final chapter reports on a summary of findings, conclusions, recommendations, and suggestions for further research.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

The second chapter of this study focused on reviewing relevant literature regarding the research problem. The review covered theoretical framework, conceptual review, and empirical review.

Bandura's (1977) self-efficacy and social cognitive theories, Zimmerman's model of self-regulated learning (Zimmerman, 2000), and Pintrich's model of self-regulated learning strategies (Pintrich, 2000) were reviewed as theories that formed the basis for this study. The concepts of academic self-efficacy and self-regulated learning were reviewed. The empirical review covered self-efficacy and academic performance, self-efficacy and self-regulated learning, self-regulated learning, and academic performance, sex differences in self-regulated learning, and sex difference in academic self-efficacy

Theoretical Framework

Social Cognitive Theory (Bandura, 1977, 1986)

The variables self-efficacy and its related variable, self-regulated learning, were advanced within the social cognitive theory as relevant factors that influence our learning and subsequently our personality. The social cognitive theory advances the view that human behaviour is influenced by the dynamic interaction of personal, behavioural, and environmental factors. Inferring from this perspective, humans are thought to be organisms who self-organize, self-reflect, self-regulate, and are proactive instead of just being reactive organisms controlled by environmental forces or just inner impulses

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Bandura (1986). This forms the basis of Bandura's (1986) idea of triadic reciprocal determinism which asserts that individual factors, behavioural factors, and environmental factors create bidirectional interaction that determines the behaviour of humans. The individual or personal factors include; knowledge, expectation, and attitudes. The behavioral factors include skills and practice, and the environmental influences or factors include social norms as well as influences on others.

The introduction of 'cognitive' into the name of the theory which was originally social learning theory seeks to highlight the critical role cognition plays in the ability of humans to construct reality, relate their behaviour, and perform. The basic assumptions underlying the theory state that humans learn by observing others and modeling, behaviour is goal-directed, behaviour is self-regulated. Observation, however, does not produce a mere imitation of behaviour. The human who is conceptualized as an agent observes and models aspects of behaviour he/she considers worthy (Hurst, 2014).

For learners to be successful at tasks in the school environment, they must first believe in their abilities to be successful at the specific tasks. Although, learners believe in their ability to influence their performance on a task, it is not enough to just believe in one's ability. Specific strategies must be put in place to engage in the actual performance of the task, hence the need for self-regulation. Pintrich (2004) affirms this assertion when he states that academic success is influenced by the combination of social, environmental, motivational, and cognitive factors. Self-regulated learning and academic self-efficacy were advanced within the framework of the social cognitive theory. In the school environment, teachers can make use of the provisions in the social

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cognitive theory to build emotional stability in pupils and correct wrong impressions or negative perceptions of the school environment (personal factors), this, in turn, helps to boost their academic performance and improves their skills to self-regulate their studies.

The social cognitive theory downplays the behaviourist theories that place so much value on the environmental stimulus as central to the determination of human behaviour. This is because variables in the school environment that may militate against students' achievement can be changed by the learner since the learner is active in self-reflection and self-regulation (Williams, 2001). In furtherance of the argument against the behaviourists who view the learner as passive and controlled in a mechanistic manner, he asserts that psychology that is deficient in self-examination cannot adequately explain the complexities of human functioning (Bandura, 1986). Beyond environmental influences, it is important to also consider how the individual cognitively processes or interprets the environmental stimulus because environmental influence plays a crucial role.

Hence, behavioural and environmental factors have a significant impact on self-regulated learning, which is predominantly controlled by personal processes. These occur reciprocally. Students' success in the classroom cannot be attributed to just personal perceptions of efficacy without acknowledging an environmental influence such as teachers' support and enactive outcomes, which is obtaining answers to previous classroom problems. Zimmerman (1989) alludes to this fact when he asserts that self-regulated learning takes place to the extent that students are able to

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deliberately control their behaviour and the immediate learning environment through personal processes.

The social cognitive theory was founded on agentic philosophy which expounds that humans are agents who are capable of deliberately engaging in their development, are proactive in that they anticipate the outcome of their everyday actions, self-reflecting by making a judgment of their cognitions and behaviour, and can also self-regulate. The individual is able to construct their own knowledge and also control their actions in the direction of the target goal. This agency according to Bandura (1977) operates as an individual agency which explains how an individual influences his environment, and a proxy agency which explains the belief one has about others to help them bring about desirable outcomes.

Bandura further extended the agency to include a collective agency where individuals work together to achieve a collective objective since the individual does not live in isolation. The human agency has four core properties

Intentionality: Individuals' active decision on engaging in certain activities;

Forethought: Individuals' ability to anticipate the outcome of certain actions;

Self-reactiveness: Individuals' ability to construct and regulate appropriate behaviours;

Self-reflectiveness: Individuals' ability to reflect and evaluate the soundness of their cognitions and behaviours.

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These properties bring to bear some primary capabilities of the learner in the classroom situation. Four of these capabilities are addressed as the foundation of the social cognitive theory. (Graham & Weiner, 1996) outlines the four main human capabilities which are

Symbolizing Capability: the human being has a powerful imaginative power that makes him/her perceive the nature of a task, think about the possible solutions, and also makes estimates of possible outcomes. The ability of humans to symbolize means they can interpret variables in the environment, develop a course of action, use their cognition to solve complex problems, gain new knowledge, and also self-reflect. According to Bandura, this ability to symbolize makes the individual keep information acquired to guide their future behaviours. This explains why people model behaviours they have observed (Miller & Dollard, 1941). People solve cognitive challenges and exercise self-direction and forethought by using symbols. To inspire, direct, and govern their activities, people plan courses of action, anticipate the potential outcomes of these acts, and set goals and challenges for them. One can predict the results of an activity without actually taking it because they have the ability to plan alternate strategies. The ability to plan alternate strategies enables one to anticipate the repercussions of an action without actually engaging in it. (Schunk & Pajares, 2002).

Self-regulation Capability: this capability enables the individual to control his/her responses in the face of an external stimulus. In a classroom situation, feedback plays a key role. Positive or negative feedback learners get whiles performing a task informs how they refine their skills to ensure success. This can also help to build academic self-efficacy. From this context,

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self-regulation is key for effective human functioning. Winne (2001) added that self-regulated learning sets a goal that sustains his/her motivation. They are aware of their current knowledge and abilities and how these will contribute to the task ahead. They are equally deliberate about their strategies to enable them to achieve their goals.

Self-reflective Capability: this reveals the individual's ability to monitor their progress by making a value judgement of their actions. The evaluation of their progress determines how much effort to need to put in

Vicarious Capability: we can also understand our actions better and make appropriate adjustments by looking at similar actions taken by others and the consequences we observe.

According to social cognitive theory, self-efficacy is an important component of self-regulated learning. The efficacy beliefs of students will influence their feelings, thoughts, motivation, and conduct (Bandura, 1986). According to the study, students who have a stronger sense of perceived self-efficacy demonstrate more of the contextual and behavioural factors that influence self-regulated learning, are much more inclined to establish higher goals for themselves, and are more focused on achieving them.

According to the social cognitive theory, humans learn through observing others (models) and noting the consequences that come from their behaviour. The study of this observational learning made psychologists differentiate between factors that influence the vicarious acquisition of knowledge and the factors that influence the actual performance of some behaviour. Among the factors that influence the vicarious acquisition of knowledge are the strength and value of the observed consequences of the

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behaviour, the similarity of the model to the observer, and the social status of the model.

According to Bandura (1998), the kind of behaviour people would engage in as well as the level of risk they would accept depend on their expectations of mastery or achievement and their beliefs about their own efficacy. Those who have a profound belief in their own abilities are able to choose, control, and even establish the circumstances that define their own lives. Individuals who feel confident in their abilities also experience less fear. Self-efficacy can be increased or improved. This improvement in self-efficacy can be done by providing children with positive role models in their early years of life, our culture, parents, and our own experiences in life can aid in the formation of a strong feeling of self-efficacy.

On the other hand, a person's level of self-efficacy determines how particular behaviours are actually performed. Self-efficacy refers to a person's beliefs about the actions that should be taken to accomplish a goal as well as their confidence in their ability to carry out such tasks.

Because of the human ability to symbolize personal experience and to think ahead about the expected consequences of personal actions, each individual has the capability to self-reflect, leading to the possibility of self-directed behaviour modifications. Self-efficacy beliefs are crucial to making self-directed changes.

In its relevance to the current study, Bandura's Social Cognitive theory posits that human behavior is influenced by interactions between personal (self-efficacy beliefs), behavioral (self-regulated learning strategies), and environmental factors. Specifically, it emphasizes that individuals' beliefs in

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their own capabilities strongly influence their motivation, perseverance, and goal-setting behaviors. In the context of education, students with higher academic self-efficacy are more likely to set challenging academic goals, persist in their efforts to achieve them, and bounce back from setbacks.

The theory also underscores the importance of self-regulated learning processes, where students actively monitor, control, and adjust their learning strategies to enhance their academic performance. This includes setting goals, managing time effectively, seeking help when needed, and reflecting on their learning progress. Environmental influences, such as teacher support and peer interactions, also play a crucial role in shaping students' academic self-efficacy and self-regulated learning behaviors. Positive environmental factors can enhance students' belief in their abilities and provide opportunities for effective self-regulation.

 Bandura's Social Cognitive Theory therefore provides a comprehensive framework to understand how academic self-efficacy and self-regulated learning contribute to academic performance among Senior High School students in Ho Municipality. By examining these factors within the theoretical lens of social cognitive processes, the thesis aims to uncover insights that can inform educational practices and interventions aimed at improving students' academic outcomes in the region.

Self-Efficacy Theory

Albert Bandura began studies on Self-efficacy in the year 1977. In his work, "Self-efficacy: Toward a Unifying Theory of Behavioural Change" he explained the concept of self-efficacy to be an individual's perception of their

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expectations for learning and belief in the ability to accomplish the task at a specified level of complexity. He noted that an individual's self-efficacy affects the nature of the task they want to engage in and also affects their perseverance on a task once it's initiated. Learners develop their expectations of success at an academic task mostly as a result of their personal, behavioural, and environmental factors (Schunk & Meece, 2006).

Bandura's theoretical framework is preferred in educational research because it provides a basis to explain the inconsistency in learning outcomes (Klassen & Usher, 2010; Schunk & Meece, 2006; Zimmerman & Cleary, 2006; Bouffard, Bouchard, Goulet, Denoncourt & Couture, 2005; Pintrich, 2004; Zimmerman 2000; Schunk, 1991).

When stimulated externally, the individual behaves in such a way as to get a reward or avoid punishment. How we behave in such situations to a greater extent depends on our self-efficacy beliefs (Darner, 2012). Learners' confidence in their capability to do well in a particular subject greatly influences their performance in the subject or course of study.

In contrast to other self-efficacy theories of the time, Bandura's self-efficacy theory is contextual in nature and task-specific. It, therefore, requires the person to use judgment as well as increase his motivation and self-regulatory processes to decide on a course of action and the use of resources, to achieve a set goal (Pajares, 2002).

Highly efficacious people engage in difficult tasks and see those tasks as an opportunity to gain mastery rather than threats they must avoid (Williams & Williams, 2010). Self-efficacy is greatly determined by mastery

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experience, vicarious experiences, social persuasion as well or emotional arousal, or physiological feedback (Brouwers & Tomic, 2000).

In academic settings, self-efficacy is significant because it predicts how students approach their lessons and academic tasks (Klassen & Usher, 2010). Intelligence quotient (IQ) is no longer the only primary predictor of academic achievement indicating that there's more to influence academic performance than just intelligence (Diseth, 2011; McMillan, 2010; Bandura et al., 2008; Credé & Kuncel, 2008; Choi, 2005; Pintrich, 2004). Students' academic self-efficacy which comprises the belief in their ability to be successful at an academic task will influence the way they study. Depending on prior positive or negative experiences, students' self-efficacy for academic performance might vary substantially from subject to subject. (Schweinle & Helming, 2011).

If the emphasis on intellect as a predictor of academic achievement gradually changes, then there's the need to study other variables, especially academic self-efficacy to better understand them and plan how to cultivate them in learners to increase their academic performance (Credé & Kuncel, 2008). Self-efficacy can enhance performance by boosting positive attitudes toward academic activities, as suggested by Klassen and Usher (2010), who discovered that self-efficacy predicted positive attitudes toward mathematics and problem-solving better than their actual ability. Self-efficacy may also have an impact on student achievement by increasing the level of motivation among the students. (Garcia & Pintrich, 1996; Zimmerman, et al., 1992; Schunk, 1991).

Zimmerman Cyclical Phase Model of Self-regulated Learning

Zimmerman's models of Self-Regulated learning are grounded in the Social Cognitive perspective of self-regulated learning. Zimmerman developed three models of self-regulated learning (Panadero & Alonso-Tapia, 2014). Zimmerman (2013) later reviewed his work and framed it into the social cognitive theory.

He names the first model Triadic Analysis of Self-Regulated learning. This model explores the interrelationship of the environment, behaviour, and person level. This was linked to Albert Bandura's triadic model of social-cognition (Zimmerman, 1989). The Cyclical Phases of Self-regulated learning which is the second model advanced by Zimmerman in the year 2000 examines the interaction of metacognitive and motivational processes. It is commonly referred to as Zimmerman's model. Every phase of the Cyclical phases is made up of sub-processes (Zimmerman & Campillo, 2003). The final model is known as the Multi-Level model. This Multi-Level model presents four stages in which students acquire their competency in Self-regulated learning (Zimmerman & Moylan, 2009).

However, for this study, the Cyclical model will be reviewed. This is because there is current empirical evidence for this model which establishes a positive correlation with student academic performance (Doménechbetoret et al., 2017 & Street et al., 2017). The cyclical phase model has three phases namely; forethought, performance, and Self-reflection (Zimmerman, 2000).

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Forethought phase

In this phase, students examine tasks, establish goals, and plan how to reach those goals. The motivational beliefs of the students strengthen the process and impact the use of appropriate learning techniques.

Performance Phase

The student at the performance phase executes the set goal and also monitors how he/she is making progress in the execution of the tasks. The student employs self-regulation strategies to keep him/her highly motivated and engaged cognitively to be focused and complete the task successfully.

Self-reflection Phase

At the final phase of this model which is the self-reflection phase, the student assesses how he/she has executed the tasks. The student examines the strengths and weaknesses in accomplishing the task. These reflections trigger self-reactions which have the potential to influence how the student approaches the task in a later performance.

There have been studies to test the various phases of this model. In one such study, it was used to study the learning of athletic skills such as volleyball serving and dart throwing. Measures of self-regulated learning employed showed significant differences in the performance of those considered experts, the non-experts, and those considered complete novices (Zimmerman, 2008; Cleary & Zimmerman, 2010). It was identified that the experts extensively used self-regulated learning strategies. They equally reported high motivational beliefs (Kitsantas & Zimmerman, 2002). The novices who were then engaged and taught multiple self-regulated learning strategies reported significant improvement in their motivational beliefs and

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athletic skills. They did better than novices who were in the control group (Cleary et al., 2006). This means that self-regulated learning ability can distinguish the academic performance of students as has been supported by empirical studies.

This study, therefore, seeks to study the prevalence of this model in the Ghanaian setting and examine its influences on academic performance among senior high school students in the Ho Municipality.

Grounding the Field and Emphasizing the Role of Motivation in Self-regulated Learning (Pintrich, 2000)

Pintrich, an educational psychologist who was at the University of Michigan, made significant contributions to educational psychology in a wide range of areas, including self-regulated learning. He researched the relationship between self-regulated learning and motivation. (Pintrich et al., 1993). His model brought more clarity to the Self-regulated learning framework (Pintrich & de Groot, 1990).

He developed the Motivated Strategies for Learning Questionnaire (MSLQ) which is extensively used in educational research to measure variables including self-regulated learning among students (Moos & Ringdal, 2012). This model clarified the difference between metacognition and self-regulation and also stressed that areas of Self-regulated learning require further exploration. (Pintrich et al., 2000). Pintrich's self-regulated learning model is made up of four phases.

Forethought, planning, and activation:

In this phase, objectives are identified, accepted, and directed, time and space are planned, perceptions of the tasks are assessed, and motivating impacts are assessed.

Monitoring

An individual comprehends cognitive awareness at this point. Again, there is the awareness of the impacts of one's own motivation, the consciousness of the task, consciousness of one's time, and consciousness of one's need for assistance, in addition to awareness of the task and the task-related

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The individual at this stage has chosen and put into practice effective learning techniques for thinking. They select their desired motivational strategies and put them into use. By re-evaluating these methods and/or making changes to the various tasks one has been assigned, one exhibits self-observed behaviours as well as an increase and decrease in the effort.

Reaction and reflection

During the reaction and reflection point, people are making cognitive judgements and evaluations about things like responding effectively, persisting, giving up, making decisions, and analyzing content. This provides them the opportunity to assess their work. In other words, this is the point at which the person evaluates whether or not the performance he or she displayed at the beginning differs from the initial target which was set.

If the proper learning environments are offered, pupils can be taught self-regulated learning techniques. One of the main goals of education should

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be to provide students with the ability for organising their studies (Eker, 2014). Although a review of current literature by (Ekhlas & Shangarffam, 2013; Kim & Seo, 2013) points to the fact that there is a significant relationship between self-regulated learning and academic performance,

Quince (2013) however found that the relationship between the final general education course grades and self-regulated learning skills of a community college students were not statistically significant. Based on the empirical evidence that supports this model, it is therefore important to include it in this study.

Both Zimmerman's and Pintrich's models provide comprehensive frameworks that elucidate how students actively engage in their learning processes. Zimmerman's model emphasizes the cyclical nature of self-regulated learning, involving forethought, performance, and self-reflection phases. This aligns with the thesis's focus on understanding how students in Senior High Schools manage their learning tasks and how these processes relate to their academic performance.

Understanding Zimmerman and Pintrich's models offers practical insights for educators and policymakers. By promoting self-regulated learning strategies such as goal-setting, self-monitoring, and self-reflection, educators can foster students' academic self-efficacy and enhance their overall academic performance. This theoretical underpinning can guide the development of interventions and teaching practices tailored to improve learning outcomes among Senior High School students in the specific context of Ho Municipality. Zimmerman and Pintrich's models has been extensively researched and validated across various educational settings and provide

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robust theoretical basis backed by empirical evidence, ensuring that findings and recommendations are grounded in well-established frameworks of self-regulated learning and academic self-efficacy.

Conceptual Framwork
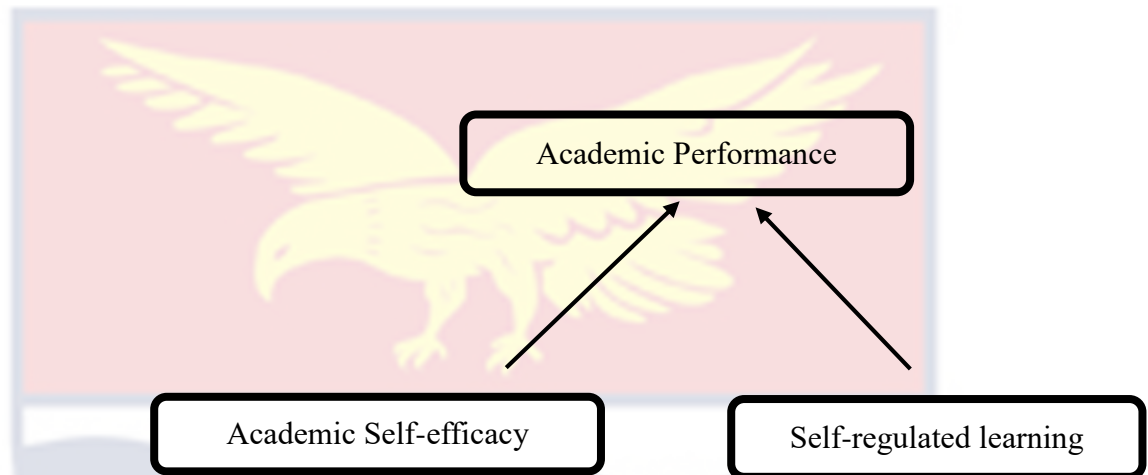
Figure 1: Conceptual framework of students' academic self-efficacy, self-regulated learning and academic performance

The figure above illustrates the relationship between academic self-efficacy, self-regulated learning and academic performance. From the model above, independent variables; academic self-efficacy and self-regulated learning can predict academic performance which is a dependent variable.

Conceptual Review

Concept of Academic Self-efficacy

Since the publication of Albert Bandura's (1977) seminal article entitled "Self-Efficacy: Toward a Unifying Theory of Behavioural Change," a lot of studies have looked at how self-efficacy influences human functioning.

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The concept of self-efficacy, considered a major component of the Social cognitive theory has extended beyond educational psychology and applies to other disciplines including; business, athletics, medicine, politics, and psychopathology (Pajares, 2004).

Bandura (1977) defines self-efficacy as an individual's perceived learning expectations and belief in their ability to successfully complete a task at defined levels of complexity. He emphasises that self-efficacy influences behaviour and has a "directive influence on the choice of activities and settings, but, through expectations of eventual success, it can affect coping efforts once they are initiated" (p. 194). In educational psychology, the concept is used appropriately as Academic self-efficacy. There are studies of academic self-efficacy and its relationship with motivation and academic performance.

Stated differently, the individual's belief in his/her own ability to be successful at an academic task explains academic self-efficacy (Schunk & Pajares, 2002; Linenbrink & Pintrich, 2002; Eccles & Wigfield, 2002; Elias & Loomis, 2002; Bandura, 1997). Bandura (1977) argues that, "self-efficacy influences the nature of tasks people choose, how much effort they put in and how long they will endure in the face of daunting challenges, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with environmental demands, and the level of accomplishments they realise" (p.3).

Academic efficacy expectation as an academic expectancy belief can be differentiated from academic outcome expectation which is the general belief that students hold that a specific behaviour will produce a certain

outcome. For example, students generally believe that if they study hard, they will do well in their examinations. Academic self-efficacy expectation talks about the students' belief that he/she can study hard to improve their learning outcomes. The difference between these two is very important because students may know that certain behaviours will produce certain outcomes but may not believe that they can perform those behaviours (Eccles & Wigfield, 2002).

Therefore, students who have confidence in themselves and believe that they have what it takes to deal with a challenge in the academic environment exhibit high academic self-efficacy. These kinds of students are very much likely to perform better on any task in the school environment. Indeed, research conducted by Linenbrink and Pintrich (2003) alludes to the position that academic self-efficacy correlates with students' cognitive engagement, academic commitment, and vulnerability to negative emotions as well as academic achievement. Bandura (1993) therefore asserts that central to understanding the academic outcomes of students should be their level of academic self-efficacy. He further noted that highly efficacious students are not overwhelmed by problems, instead, they see them as challenges that must be resolved to pave the way for academic achievement.

Additionally, students who have high efficacy show a lot of commitment to the academic goals they set. Such students do not interpret their failure as a deficiency but rather an inadequacy of their effort or knowledge put in. This serves as a motivation for them to work harder to achieve set goals. People's motivations, emotional states, and acts are influenced more by what they believe than by what is objectively true

(Bandura,1997). Because these self-efficacy perspectives have an impact on what people do with the knowledge and skills they have, it is frequently the case that how people behave is predicted more by their ideas about their abilities than by what they are actually capable of doing (Bandura, 1997).

Due to variations in self-efficacious thinking, two students with the same information and skills may do poorly, competently, or remarkably (Bandura, 1986; Bandura, 1993). Hence, learners with low efficacy have the propensity to avoid complex, demanding, and tough assignments. Students who are confident in their talents put up more effort and keep going despite setbacks and failures for a longer period (Zimmerman & Bandura, 1994). Bandura (1986) argued that "without sufficient self-efficacy and self-regulatory capabilities, individuals will rapidly abandon the skills they have been taught when they fail to get quick results or required bothersome effort" (p. 733).

Academic accomplishment and the deployment of techniques effectively have both been demonstrated to be positively correlated with self-efficacy (Schunk, 1985). People with high self-efficacy expectations are more likely to try and stick with new behaviours, such as learning new technology. They are also more likely to succeed, which raises their self-efficacy expectations (Bandura, 1982).

According to the theory, academic self-efficacy beliefs influence student academic achievement through four psychological processes (Bandura, 1993), namely the cognitive, motivational, affective, and selection processes.

When it comes to the cognitive level, the extent to which students believe in their abilities determines the kind of academic results they

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anticipate. Some students are quick to write off themselves as capable of improving their academic performance so they do not expect any change as a result. Such students are described by Bandura (1997) as suffering from a condition called cognitive negativity. Students in this state are more concerned about their failure rather than what effort they can put in to improve. They easily give up on challenging tasks and often are skeptical about their ability to do well in examinations.

At the motivational level, students considered to be highly efficacious are motivated to put in more effort. This motivation keeps them going even when challenges are imminent. They persevere by engaging in several strategies until the expected outcome is realised. Those who perceive themselves to be having low efficacy give up too quickly, lose interest in studying, and are not willing to invest any much effort because of the belief that they cannot do it. Their capacity to endure in the face of challenges diminishes so quickly.

At the affective level, students with an increased level of academic self-efficacy are able to overcome stress when studying. They see their studying as rewarding since it is a means to an end. Conversely, students with a low level of academic self-efficacy often get so much exhausted not as a result of long hours of study but due to anxiety of failure. Their anxiety generates agitation which impairs their cognition and intellectual capabilities.

In the last level of selection, pupils prefer activities in which they are confident over ones in which they believe they are incompetent. The type of decision they make and the environment they choose are influenced by their feeling of self-efficacy.

In summary, efficacious students will strive to improve their learning outcomes regardless of external obstacles. Bandura (1997) however, adds that self-efficacy is quite unstable when formed. This is due to the individual's ongoing evaluation of new knowledge, which might lead their self-efficacy to change in strength.

It is worth noting that in a typical classroom environment, having the requisite information and skills to accomplish a task is not enough; one must also have the conviction that he or she can effectively execute the required behaviour under difficult circumstances. Effective functioning, then, requires skills and efficacy beliefs to execute them appropriately—two components that develop jointly as individuals grow and learn. Furthermore, these two components of successful human functioning act reciprocally on one another, resulting in what Bandura (1997) refers to as "reciprocal causation," in which the functionality of one component is dependent, in part, on the functioning of the other. Lent and Hackett (1987) contend that accurate and robust expectations of personal efficacy are critical for the onset and maintenance of behavioural performance in human development.

Developing Academic Self-Efficacy

Students' academic self-efficacy can be cultivated and nurtured. As a result, it is the teacher's obligation to employ effective ways to assist students in increasing their academic self-efficacy in order to improve their educational success. Common among these strategies are goal-setting, strategy training, modeling, and feedback (Schunk, 1995).

In Goal setting, the teacher is expected to make students understand the key role played by goal setting in every activity. Goals help to direct one's

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effort or energy in a given task. Teachers therefore, should guide learners to set goals for their academic progress. Teachers must equally monitor the progress of students in relation to achieving the goal and provide necessary feedback. Without a specific goal and students' belief in their abilities, academic tasks can be perceived as daunting. Having set a goal, appropriate steps must be put into action towards the attainment of set goals or targets and this requires strategy training.

Strategy verbalization and think-aloud procedures are good ways teachers can teach strategy training (Schunk, 1995). Students especially in high schools require a lot of training on what to do to improve their learning outcomes. Teachers can guide the students to prepare a personal timetable and go by it. Train them to constantly remind themselves of the task ahead of them. This will always keep their focus and enable them to be systematic in their studies. An effective way to guide students to strategize to accomplish academic goals is by providing them with models. Students learn by observation and modeling. Teachers can model cognitive strategies and self-regulatory skills to help learners to acquire them. This strategy can be very motivating to students (Zimmerman, 2000). Alternatively, the teacher can also provide students with other models during class activities. For students to constantly monitor and evaluate their progress on a task, they must be given adequate feedback. Educators are supposed to continue providing feedback to students and encourage them to strengthen their academic self-efficacy.

Hemant and Gunjan (2014) observed that the extent to which academic self-efficacy influences the academic performance of students is dependent on the kind of dimensions the individual attributes to his or her performance.

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They identified the locus of control, stability, and controllability as variables that determine a person's failure or success in learning.

Locus of control talks about the individual's belief about a particular outcome as being influenced by outside factors which are beyond his/her control. While some students see their poor performance in examination to be caused by their inadequate preparation, others may see it as a misfortune or the teacher deliberately failing them. Students who attribute their failure to inadequate preparation are likely to put in more effort in the future to improve.

Stability can be explained in terms of how long the factor that causes the failure will last. A student who attributes failure in mathematics examination to sudden illness will anticipate doing better when healthy. In this case, the students take responsibility for the failure. Some other students may conclude mathematics is very difficult and that is why he/her performs poorly all the time. With this mindset, the attribution will stay relatively longer. The longer it takes, the more it lowers the student's self-efficacy in relationship to the task.

When students perceive that they have control over the outcome of their examinations over a given time, they exhibit controllability attribution. Conversely, when students perceive the causes of their failure as beyond their control, they are prone to get demotivated and thus will not invest much effort in it again as they see it to be a waste of time.

The concept of Self-regulated learning

Self-regulated learning (SRL) encompasses cognitive, metacognitive, behavioural, motivational, and emotional/affective aspects of learning. It is thus considered an exceptional umbrella under which a large variety of

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variables influencing learning (e.g., self-efficacy, volition, and cognitive strategies) are studied comprehensively and holistically. For that reason, self-regulated learning has become one of the most important areas of research within educational psychology (Panadero, 2017).

There are numerous definitions of self-regulation, and scientists in various fields, including educational psychology, have not reached a consensus. Metacognition and self-regulation are sometimes used interchangeably, although some models consider metacognitive methods to be an important component of self-regulation. The line between self-regulation and metacognition is still unclear (Dignath et al., 2008).

Since the earliest publications in which scientists began to distinguish between self-regulated learning and metacognition, self-regulated learning has made a significant contribution to educational psychology (Zimmerman, 1986; Pintrich et al., 1993). Since then, conceptual development in the field of self-regulated learning theory has evolved and expanded, and there are currently many models of self-regulated learning (Sitzmann & Ely, 2011).

Among the psychological correlates that influence academic achievement, self-regulated learning plays a key role (Richardson et al., 2012). Also, in high institutions, Rosario et al (2012) have discovered that self-regulated learning strategies significantly improved learning among students. The influence of self-regulated learning on academic performance is not only limited to higher institutions of learning. The impact of self-regulated learning on academic performance in secondary school has also been established (Zhang et al., 2012; Chen & Hu, 2008). Application of self-regulated learning also implies a shift in a learning model which in the past viewed a learner as a

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passive recipient of knowledge to an active learner, an independent person who utilizes various information processing techniques (Boekaerts, Pintrich & Zeidner, 2005).

Developing Self-Regulation

Self-regulated learning behaviour can be established in students through various learning resources and intercessions, according to Hong, Peng, and Rowell (2009), which can have an impact on their successes. According to the findings of Hong et al. (2009), self-regulated learning behaviour is an important predictor for university students, and they can be motivated by providing them with information or awareness of self-regulated learning behaviour.

Schunk and Zimmerman (1997) describes the four stages that self-regulation goes through as it grows and advances. The first of these processes is observation, followed by imitation, restraint, and self-regulation. According to the social cognitive approach, observational learning through modeling is the source of self-regulation. Individuals strive to employ the skills (imitation, internalise them with self-control) after learning them through modeling (observation), then they apply the skills to related tasks (self-regulation). Pintrich (1995) emphasises the relevance of faculty modeling self-regulated learning from this perspective.

Goal motivation theory says that by modeling their beliefs on disciplinary content knowledge, the learning techniques and reasoning faculty can assist students comprehend what is required in the course and guide them to be self-regulated learners. Allowing pupils to choose what they will study at

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any given time can also help them enhance their self-regulated learning skills (Pintrich, 2004).

Goals and motivation drive successful self-regulation (Bandura, 1986; Zimmerman, 1989). Students typically have both task- and ego-related aspirations. Students who embrace ego-centered goals aim to increase positive competence ratings and decrease negative competence evaluations (Pintrich & Schunk, 1996). Questions like "Is my ability adequate or inadequate?" "Will I look smart?" and "Can I perform better than others?" indicate ego-involved objectives (Dweck & Leggett, 1988).

Due to ego, students displayed their skills by comparing them to those of others (Nicholls, 1984). Task-related goals emphasise mastering tasks and improving proficiency across a range of tasks. Students who have learning objectives see effort as a way to turn on their capacity for mastery (Dweck & Leggett, 1988) and this surely leads to increased performance ability (Nicholls, 1984).

Performance indicators are also described as ego-involved goals, and learning goals are also known as task-involved goals. Students that have ego-centered goals compete with one another and are more likely to complete tasks they are confident they can do. With learning objectives, students will also have a wealth of techniques at their disposal to use in various learning scenarios (Greene & Miller, 1996). Students who are actively engaged in a task are more likely to select difficult tasks and are more focused on improving themselves than competing with others.

Instead of focusing on performance goals, the self-regulated learner seeks to accomplish mastery goals. They organise their academic time using

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their mastery goals (Ley & Young, 1998). Performance ability is increased by realising precise, difficult goals as opposed to vague or practically no goals (Locke & Latham, 1990). The better the performance, the more difficult the aim.

The ability of the individual to accept and stick with the goal as well as obtaining feedback on the degree of progress made in achieving the goal can all have an impact on attaining set targets. The goals can also be influenced by the individual having the knowledge necessary to reach the goal (Ridley et al., 1992).

Because goals outline the prerequisites for personal success, they boost students' cognitive and affective reactions to performance outcomes (Bandura, 1986, 1991). Children who set learning goals have deep cognitive processes and a high level of self-regulated learning ability, which may be related to achievement (Greene & Miller, 1996). Their desire to grasp the material propels them to put in additional effort. Students with performance objectives typically employ shallow cognitive processing, which is detrimental to academic performance (Greene & Miller, 1996).

Together with goals, self-efficacy can assist learners in understanding how to control their own learning. Self-efficacy is the term for the views that students have about their capabilities during the self-regulated learning process (Zimmerman, Bandura, & Martinez-Pons, 1992). Beliefs about effectiveness affect how people feel, think, act, and motivate themselves (Bandura, 1993). According to the self-efficacy theory, students who believe they can manage their behaviour to obtain the desired results are more likely to exhibit the desired behaviour (Bandura, 1986). In other words, achieving

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personal goals necessitates both the necessary talents and confidence in one's own ability to apply those skills effectively.

Characteristics of Self-Regulated Learners

Self-regulated learners, according to Zimmerman (1990), are task-focused, low-anxiety pupils who really are actively and cognitively involved in their studies. Learners who are self-reliant look for information when necessary and take the required actions to complete tasks. This means that self-regulated learners are not easily distracted by challenges in their school environment such as inadequate teaching and learning materials, and poor study conditions. There is always a stronger desire to increase their academic achievement. They are always equipped with mastery of subject content ahead of lessons. They are not hesitant in making their unique challenges known to their teachers.

They actively engage in metacognition, and motivation, and adopt the appropriate behaviour throughout lessons to accomplish learning goals (Zimmerman, 1990). Self-regulated learners are not only good at adapting to their learning environment and making the adjustment to suit situational demands, (Wolters, 1998). Additionally, they regularly organise, coordinate, oversee, and assess their learning processes (Zimmerman & Paulsen, 1995).

Furthermore, self-regulated learners are conscious of their academic strengths and inadequacies and will select from a repertoire of problem-solving techniques (Perry, Phillips, & Hutchinson, 2006). Consequently, self-regulated learners choose the structure and establish a social and physical environment to improve their behaviour (Zimmerman & Martinex-Pons, 1988). Self-regulated learners are also considered highly motivated pupils

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since they remain engaged in tasks for longer periods than students who do not self-regulate (Zimmerman, 1989). Self-regulated learners also consistently assess their cognitive processes in order to identify and overcome barriers. When there are issues, they also assess and alter their decisions based on self-oriented feedback. They approach academic work with assurance and the hope that they will succeed because they are aware of their knowledge gaps as well as the strategies for overcoming them. Naturally, they are driven to learn, establish reasonable goals, implement effective tactics, check their progress, make necessary adjustments, and assess their results concerning their ambitions (Zimmerman, 1989). Moreover, self-regulated learners are more likely to be cognitively engaged, have low levels of anxiety, and are genuinely driven (Pintrich & Garica, 1994). In addition to possessing effective techniques, self-regulated learners frequently possess the metacognitive abilities necessary to recognise when and how to use such strategies in diverse learning scenarios.

Empirical review

Level of Academic Self-Efficacy

The level of academic self-efficacy among senior high school students has been a subject of significant research interest, revealing varying degrees of confidence in their academic capabilities across different contexts. Studies consistently show that a high proportion of students exhibit strong beliefs in their ability to succeed academically. This finding of studies conducted globally, such as Seyedi-ANdi et al. (2019) at Babol University of Medical Sciences in Iran, show that students exhibited high academic self-efficacy levels despite the challenging academic environment.

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Similarly, Agyemang (2020) in the Mampong Municipality of Ghana reported comparable findings, indicating that students were confident in their academic abilities and optimistic about their academic success with adequate support and effort. In contrast, Ochieng' (2015) found lower levels of academic self-efficacy among senior high school students in Kenya, highlighting regional variations in students' perceptions of their academic capabilities.

Moreover, research conducted in the Philippines by Tus (2020) demonstrated that while students at St. Paul College of Bocaue had high levels of self-efficacy, this did not always translate into improved academic achievement, suggesting nuances in the relationship between self-efficacy beliefs and actual academic performance (Tus, 2020). Broadbent and Honicke's (2016) systematic review further supports these findings, indicating that across Europe and the Americas, students generally exhibit high confidence in their academic abilities regardless of educational level.

Students with high academic self-efficacy are more likely to approach academic tasks with determination and persistence, viewing challenges as opportunities for growth (Maddux & Gosselin, 2012). Conversely, those with low self-efficacy may shy away from difficult tasks, doubting their ability to succeed.

Level of Academic Self-Regulated Learning

The level of self-regulated learning among students reflects their ability to independently manage and monitor their learning process, which is crucial for academic success. Studies reveal varying degrees of self-regulated

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learning competencies among students across different educational settings. A study conducted by Nabizadeh et al. (2019), reported high levels of self-regulated learning competency among medical science students in their study.

Similarly, research in the Bono Region of Ghana specifically in the Berekum Municipality echoed these findings, indicating that students demonstrated proficient self-regulated learning skills in managing their academic responsibilities (Author, Year). Foong et al. (2021) conducted a qualitative study on medical students and also identified robust self-regulated learning abilities among participants, reinforcing the importance of these skills in academic contexts.

Contrarily, Mahama et al. (2022) conducted a study involving Colleges of Education in Ghana and found mixed results regarding self-regulated learning. While some students exhibited moderate to high levels of self-regulation, a significant portion reported low capacities in managing their learning independently.

Academic Self-efficacy and Academic Achievement

Literature reveals that developed countries have directed immense research into the influence of academic self-efficacy on academic achievement. Whiles a good number of the studies indeed established that academic self-efficacy predicts academic performance (Maliha & Sarwat, 2019; Hassan, Alasmari & Ahmed, 2015; Tenaw, 2013), some studies however, found no statistically significant relationship. Regardless, the influence of academic self-efficacy on academic performance cannot be underestimated (Honicke & Broadbent, 2016).

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A study conducted by Ochieng' (2015) to determine the level of correlation between academic self-efficacy and academic performance in Mathematics among secondary schools in Kenya yielded a statistically significant relationship. However, findings of the study suggest that the level of academic self-efficacy among high school students in Kenya was relatively low. It also came to light that students who reported a high level of academic self-efficacy performed creditably well in mathematics. This was in contrast with those who had low academic self-efficacy. Results from the study further revealed students in that category recorded low performance in mathematics achievement. This study on the influence of academic self-efficacy is subject-specific and not academic performance in general from multiple disciplines. Some students may do well in a particular subject more than others. This, therefore, does not provide enough evidence to clarify the correlation between academic self-efficacy and academic achievement.

Further, Oyuga, Raburu, and Aloka (2019) argue that the study by Ochieng' (2015) used only the quantitative method which they believe will not establish a true relationship between the variables because they deem a mixed method as a more appropriate design. They employed the mixed method approach to examine the influence of academic self-efficacy on academic performance among orphaned students in high schools in Kenya. Results from the study revealed a significant weak (small) positive relationship between self-efficacy belief and academic performance (r = .276). Despite the weak relationship uncovered during the statistical analysis, results from the interview used in the study showed academic self-efficacy plays a central role in determining the academic performance of students in high school in Kenya.

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Ogunmakin and Akomolafe (2013) conducted a study to examine the extent to which academic motivation, academic self-efficacy, and academic self-concept predict the academic success of secondary school students. Two hundred and ninety eight students were selected for the study. Regression analysis carried out on the responses of 298 sample of students used in the study showed that the variables; academic self-efficacy, motivation, and academic self-concept significantly predicted the academic performance of these students. The results of the aforementioned research support the assertion made by (Dogan, 2015) that having confidence in one's capacity to succeed in particular circumstances or the completion of particular activities frequently produces favorable outcomes.

The above studies on the African continent mainly focused on studying the relationship between academic self-efficacy and academic achievement. The studies provide little knowledge about the predictive power of academic self-efficacy in academic performance. This literature review looks into Betoret, Rosello, and Artiga's (2017) research on the influence of self-efficacy on academic achievement in an effort to provide a response to this question. Seven hundred and ninety seven Spanish secondary school students from 36 different educational institutions made up the study sample. Academic performance and academic self-efficacy data were also not gathered immediately. Right from the beginning of their course, the respondents of the study were given a questionnaire for academic self-efficacy. However, the respondents' data on academic performance were taken after the course. Structural equation modeling was used by the researchers for the data analysis. The structural equation model analysis indicated that self-efficacy predicted

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academic achievement. However, the time gap between the data collection on academic performance and academic self-efficacy made way for mediating roles of other variables. The study revealed that students' expectancy-value beliefs played a mediating role. The researcher however failed to identify and control extraneous variables.

Li (2012) investigated the association between student attitudes regarding research methodologies and statistics, student effort, and academic accomplishment at the University of Hong Kong. He used 153 students from the Social science department and adopted a self-administered questionnaire. The regression analysis report concluded that the student's academic self-efficacy predicted the academic performance of students. Academic success was not predicted by the multiple regression analysis of attitude, self-efficacy, and effort. The study employed a sample of college students, however, it did not report on the effectiveness of self-efficacy alone in predicting academic success.

Students' attitudes toward research methodologies and statistics, self-efficacy, effort, and academic accomplishment all exhibited positive correlations, according to further analysis using Pearson's correlation coefficient. Singling out academic self-efficacy and academic performance and analyzing their relationship also revealed that they positively correlated. This is consistent with the literature. Results from this study confirmed reports from other studies done with the same design like those of Loo and Choy (2013), Dogan (2015), Bahmanabadi and Baluchzade (2013) and Yang, Shannon and Ross (2015). The above studies were all conducted at the tertiary level.

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Again, Honicke and Broadbent (2016) conducted a systematic review of studies examining the influence of academic self-efficacy and academic performance that was conducted across 12 years. Out of the 59 papers that were analyzed, a greater number of the studies found a moderate correlation between academic success and academic self-efficacy. Many of these articles also revealed mediating and moderating roles of other psychological constructs such as effort regulation, deeper processing strategies, and goal orientations. Because about half of these studies were conducted in USA and UK, Honicke and Broadbent (2016), were hesitant in generalising their findings beyond these continents because there is evidence of cross-cultural variations in academic performance (Mullis et al., 2000; Jerrim & Shure, 2016). It was also revealed that most of the studies used quantitative design in their studies.

Greene (2007) suggests that for the study of certain variables in research, using a blend of qualitative and quantitative data can improve an evaluation by reducing the effect of limitations of both methods. In light of this, Aurah (2013) carried out a study to examine the impact of students' self-efficacy beliefs and metacognition on their academic performance. The study sample consisted of 2138 form four students who were chosen at random. A self-efficacy questionnaire was administered to collect quantitative data. To support the quantitative data, thematic analysis was used to examine the qualitative information gathered through in-depth interviews. Quantitative data were analyzed using descriptive and inferential statistics specifically hierarchical linear regression and factorial ANOVA. The findings showed that self-efficacy was a significant predictor of academic performance. The

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findings also showed that students with high levels of self-efficacy outperformed pupils with low levels of self-efficacy on achievement examination. Western Kenya was the location of the study.

The results of the aforementioned mixed-methods study fall in line with those of Oyuga, Raburu, and Aloka (2019) who looked at the relationship between academic achievement and self-efficacy among secondary school students in Kenya. The social cognitive theory served as the foundation of the study. Three hundred adolescents and 11 secondary school principals made up the sample. Questionnaires, interview guides, and document analysis were used as data collection instruments in the study. Regression analysis was used to analyze the data, and the results showed that there was only a predictive relationship (r =.276) that existed between academic self-efficacy and performance. However, this predictive power was a weak one as the regression coefficient indicated.

Despite the fact that these studies' results showed a relationship between academic self-efficacy and performance, the majority of the respondents expressed low self-efficacy. The results of Kolo, Jaafar and Ahmad (2017), on the other hand, showed that over 80% of respondents had higher levels of academic self-efficacy in College. The study focused on the degrees of students' beliefs in their academic self-efficacy and the relationship between academic self-efficacy and academic performance among final-year students in one of Nigeria's colleges of education. Also, there is a positive and significant correlation between students' academic achievement and their sense of academic self-efficacy (r=0.342, p <.01).

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The typical classroom, where face-to-face instruction takes place, has not been the only setting for the study of academic self-efficacy. The association between academic self-efficacy and academic achievement in online learning environments among adult learners outside of the typical school setting has also been researched. Goulao (2014) conducted a research on the relationship between an adult learner group's academic self-efficacy in an online learning context and their actual performance. The results show that students have a high level of self-efficacy and that there is a significant correlation between self-efficacy and academic performance (r=0.286, at 0.05 level). The purpose of the study was to assess the association between a group of students' academic self-efficacy in an online setting and their academic achievement. Data were gathered from 63 students, picked from the initial years of their undergraduate education, who were of both sexes and had an average age of 42. An adapted self-efficacy questionnaire with a reliability coefficient of .908 was used to measure self-efficacy. The performance of the respondents in their courses was used as the measure of their academic performance. In order to examine the association between self-efficacy and academic success, the Pearson correlation coefficient was used (Goulao, 2014).

Not all the studies reviewed found a significant relationship between academic self-efficacy and academic achievement. Moturi (2012) conducted a study on the correlation between self-efficacy and academic achievement in Mathematics and English language among Nyamira District secondary school students. The study aimed to determine the following: the association between gender and self-efficacy; the relationship between self-efficacy and academic

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performance in Mathematics and English; and the relationship between gender and academic performance (Moturi, 2012).

Both quantitative and qualitative research methods were used in the study. Participants were chosen using simple random selection techniques that were both purposeful and random. Two hundred and forty male and female secondary school students from public schools made up the study sample. Thirty percent of public secondary schools made up this sample. Data were gathered using a questionnaire with a reliability coefficient of 0.76 that was established by pre-testing. In the data analysis, descriptive and inferential statistics like the t-test, one-way ANOVA, and Pearson Product Moment Correlation were employed. The findings showed no connection between general academic performance and self-efficacy, $I = -.030$, $p>.05$. Similarly, the performance in the English language did not correlate with self-efficacy, $I =.066$, $p > .05$. There was however, a correlation between self-efficacy and academic performance in Mathematics ($I =.13$, $P < .05$), as well as between self-efficacy and the type of school ($F (2, 237) = 6.2$, $P < .05$. Also, the results revealed no connection between gender and self-efficacy ($t (238) = -.895$, $p >.05$), but a connection between gender and mathematics performance was observed ($t(238) = 1.6$, $p< .05$). There was also a correlation between gender and English language proficiency, $t (238) = -.265$, $P < .05$. These inconsistencies in research findings regarding the influence of academic self-efficacy on academic performance require that further study is undertaken to assess the situation in Ghana.

Influence of Self-regulated Learning on Academic Achievement

Academic achievement results from students' capacity to create goals for themselves in a learning environment and use self-directed efforts to achieve those goals rather than always relying on teachers' direction (Ning & Downing, 2012).

The findings of a study on self-regulated learning styles and their impact on Malaysian pre-university students' mathematics performance were published by Tang, Sunway, Jaya and Malaysia (2012). Across two groups of international students at Monash, the researchers were interested in determining whether there were any differences in self-regulated learning methods. One group had 58 international students in the first semester, compared to 18 in the second and third semesters. The final score of the most approachable mathematical topic was used to evaluate their maths, and the Learning and Study Strategies Inventory (LASSI) was used to measure the use of self-regulated learning strategies. The study's findings indicate that self-regulated learning did not significantly predict the mathematics performance of overseas students in the second and third semesters.

Roohani and Asibani (2015) however, identified a positive and significant relationship between self-regulated learning and academic performance in an experimental study using a post-test and pre-test control group design, in contrast to Somaye (2014), who conducted a similar study but did not find any significant relationship between self-regulated learning and academic achievement.

The aforementioned study examined the impact of self-regulated learning as a single variable on academic attainment. Juliana (2014) found that

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motivation had a better predictive capacity than self-regulated learning when it was combined with other motivational variables to evaluate the extent to which they influence academic performance among high school students in Argentina. Prior to the findings of these studies, a study in Egypt used the multi-stage cluster sampling technique to select a sample of 331 students. The study was aimed at investigating the effects of self-regulated learning strategies and motivational orientations on academic performance, using the GPA of the students as a measure of academic achievement. The results of the results' regression analysis showed that, once more, motivation was a better predictor of academic success. Even when self-regulated learning and academic success were correlated, its predictive power was quite weak (Hamed, 2016).

The above discoveries also differed from those of Yumusak, Sungur and Cakiroglu (2007), who examined the performance in Biology of Turkish high school students in association with academic self-regulation. The study involved 519 students in grade 10. According to the findings of multiple linear regression analyses, intrinsic goal orientation, task value, the use of rehearsal and organisation strategies, time management in the study environment, peer learning, and intrinsic goal orientation, all significantly influenced the prediction of achievement scores of respondents.

In a different environment, Soi (2017) found in a study that students with high self-regulated learning mean scores recorded a high mean score in their academic performance scores. Academic performance and self-regulated learning have a significant relationship, according to a correlation study. With $r(243) = 0.963$, $p = 0.000$, the mean and standard deviation (M=49.46, SD

=8.64) were significant. According to Koivuniemi, Panadero, Malmberg, and Järvelä (2017), the majority of studies on self-regulated learning have proven beneficial for performance among university and college students. Actually, tertiary education involves extensive training of students to be independent in the workplace in addition to concepts and content. This calls for abilities like self-regulation (Alegre, 2014).

In his investigation of the differences in self-regulation, goal orientation, and academic achievement of secondary students enrolled in online university courses, Matuga (2009) also found differences between high and low achievers. Low-achieving students performed better on the self-regulation subscale at the beginning and completion of the course than either high-achieving or average-achieving students. The self-regulated learning processes evaluated include peer learning, elaboration, organisation, critical thinking, metacognitive regulation, resource management, effort regulation, time and study environment management, and help-seeking. As in the earlier studies, this study could not establish the level of relationships between certain self-regulated learning strategies and academic performance.

According to Cakiroglu and Sungur (2015), self-regulated learning behaviour has a considerable influence on students' academic success. Although the above-mentioned researchers used different statistical tools and conducted their investigations in diverse situations, geographical areas, on different subjects, and at different educational levels, their conclusions were the same. Their research led to the conclusion that the learning environment and capacities of students are not static, but rather dynamic (Schunk, 2005).

Ways to Teach Students How to be Self-Regulated in Learning

According to Pintrich (1995), students who self-regulate their learning exhibit greater control over their academic and social expectations. This is more doable among students at the tertiary level since they have more control over their studies unlike their counterparts in Senior High School who require guidance. In recent times, high school students are not given the needed preparation to enable them to better transition into the tertiary system.

Self-regulated learning must therefore be encouraged in Senior high schools, especially in the context of the current reforms in our educational sector which places much attention on learners as key players in the teaching and learning process. Students' learning history has an impact on how they approach future tasks (Boekaerts & Cascallar, 2006).

Teachers can help children develop self-regulated learning skills by providing learning goals more frequently in the classroom. Many studies have found a link between self-regulated learning and educational success (Bail, Zhang, & Tachiyama, 2014). To encourage students to become self-regulated learners, students need to be conscious of their behaviour, motivation, and cognition. As a result, questionnaires such as the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1993) or the Self-Regulated Learning and Study Strategies Inventory (LASSI) (Weinstein, Schulte, & Palmer, 1987) can provide students with information about their motivation beliefs and learning strategies. Effective feedback will lead to learning gains (Nicol & Macfarlane-Dick, 2006). As a result, positive feedback from the teacher will help to validate pupils' self-regulation. Kiewra

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(2002) recommended NORM (Note Taking, Organizing, Relating, and Monitoring) as a strategy for assisting students with self-regulation.

A constructivist view of learning considers learning as a process of knowledge construction. The formation of concepts and full comprehension of this knowledge are the goals of the knowledge construction process (Chen, 2003). The constructivist approach is the main philosophy underpinning Ghana's current curriculum review. It is therefore important to study how self-regulated learning affects academic performance and if a positive relationship is established, duty bearers and stakeholders in education can take steps to develop self-regulated learning among Senior High School students.

Sex Difference in Self-regulated Learning

Sex differences in pupils' self-regulated learning have long piqued the interest of researchers. For instance, Asmari and Ismaiel (2012) released the findings of a study on self-regulated learning strategies as indicators of reading comprehension in English language learners. Finding out if there were any appreciable differences in the use of self-regulated learning strategies between males and females was one of the key objectives of the study. Two hundred and forty-eight undergraduates comprising 112 males and 136 females who majored in English at a Saudi Arabian university at the second, fourth, sixth, and eighth levels were used in this multi-level study. Results showed that the self-regulated learning strategies were used differently by both males and females. The differences were in favour of the male respondents.

The results of the aforementioned study are consistent with those of Habte (1997), who investigated sex and grade-level differences in the motivational and self-regulated learning methods components among primary

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school students in Awassa, Ethiopia. Approximately 170 students from each grade level, including 325 males and 314 females, were selected at random from a pool of 680 subjects in the 5th, 6th, 7th, and 8th grades based on their first semester GPA in the academic year 1996–1997. The samples comprise the upper 27 percent and lower 27 percent of students in terms of performance. The results showed that self-competence, use of cognitive strategies, and self-regulation were statistically significantly different between males and females. Again, these distinctions favoured males.

Rohman, Riyadi and Indriati (2020) studied the sex differences among High School students regarding how they self-regulate their learning of mathematics. Seventy-three students in grade 8 comprising 35 boys and 38 girls were used as respondents in the study. A questionnaire was used as the main data collection instrument for the study.

The study discovered that boys differ considerably from girls with regard to how they regulate their learning of mathematics. This is based on the results of the independent t-test. Girls were observed to do pretty well in their self-regulating learning of mathematics.

When Zimmerman and Martinez-Pons (1989) examined student differences in self-regulated learning in New York, gender disparities in self-regulated learning processes were also examined. A self-regulated learning interview schedule was used to gather the data. The fifth, eighth, and first grades of 45 boys and 45 girls from an academically gifted school and the same number from regular public schools were asked to describe their use of 14 self-regulated learning strategies and assess the effectiveness of their verbal and mathematical abilities. Asians, Whites, Blacks, and Hispanics made up the

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majority of the students at both universities. The results showed that girls exhibited greater planning and goal orientation than boys. Likewise, significant gender disparities in record maintenance were found.

Girls were found to do better than their male counterparts when it comes to keeping track of their development. Females did better than boys in environmental structuring as well. These results were based on pupils in elementary schools in a developed nation. Finding out whether there are gender variations in how secondary school pupils in a developing country employ self-regulated learning strategies, as well as the connection between these differences and academic accomplishment, was critical. Earlier studies in these developed nations found considerable sex differences in the use of self-regulated learning approaches, with the disparities favouring females. This is in contrast to those findings reviewed earlier in this work.

Aziz, Qureshi, and Khanam (2017) conducted a study on university students enrolled in four Pakistani institutions offering MS programmes in psychology and education. This study sought to examine how gender differed in some aspects of university students' self-regulated learning specifically in attention, time management, self-testing, and utilising academic resources. The results of the study showed that there was no significant difference between male and female respondents in terms of attention, time management, self-testing, or utilisation of academic resources. In order to determine whether there are gender variations in the usage of self-regulated learning, this research will look into the situation in Ghana's educational system.

Sex difference in Self-Efficacy

The premise that academic self-efficacy enhances learning is supported by empirical data. Good academic outcomes are predicted by positive academic self-efficacy belief. Previous studies specifically indicate differences in self-efficacy between genders (Lockridge, 2018; Wang & Bai, 2017; Zimmerman & Kitsantas, 2005).

Female students show much stronger self-efficacy in primary school than male students do, according to Fahle, Lee, and Loeb (2019). However, self-efficacy begins to diminish for both sexes of pupils in middle school, with a significantly bigger drop for females. As a result, from middle school onward, females report significantly lower levels of self-efficacy than boys. They argue that decreased self-efficacy among female students throughout high school and a drop in self-efficacy in middle school may both have a negative impact on those students' future educational outcomes.

Shkullaku (2013) studied sex differences in senior high school students' self-efficacy. In the study, female and male Albanian students from two prestigious universities in Tirana, Albania, were compared in terms of self-efficacy and academic achievement. One hundred and eighty students from first-, second-, and third-level courses made up of 78 males and 102 females participated in the data collection. Participants and universities were chosen at random. The participants' first-semester grade point average (GPA) and self-efficacy were assessed using questionnaires, respectively, to measure their academic success. The self-efficacy and academic performance of male and female participants were compared using an independent samples t-test. The study's findings revealed a considerable difference in self-efficacy

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between males and females. Academic achievement did not differ between males and females. Also, a strong relationship between the pupils' academic achievement and self-efficacy was identified.

Similarly, a study on sex differences in relation to four key variables - work self-efficacy, career self-efficacy, academic self-efficacy, and mentorship - was carried out in four colleges. Data analysed on sex differences revealed a considerable difference. Males were substantially more confident in their academic abilities than girls. In contrast, women reported higher levels of self-efficacy in their careers and at work (Lockridge, 2018).

Huang (2013) found contradictions in the research results on sex differences in academic self-efficacy. He carried out a meta-analysis of 187 papers to examine sex differences in academic self-efficacy. He found an overall effect size of 0.08, with a slight difference favouring men. Compared to men, women showed more self-efficacy in language arts. In contrast, men showed more self-efficacy in the social sciences, computers, and mathematics. Age also affected gender disparities in academic self-efficacy.

Chapter Summary

This chapter explores the nuanced relationship between academic self-efficacy, self-regulated learning (SRL), and academic performance, synthesizing findings from diverse studies while acknowledging both consistencies and discrepancies in the field.

A central theme highlighted in the chapter is the varying findings regarding the relationship between academic self-efficacy and academic performance. While many studies from developed countries assert a positive correlation, the literature review notes instances of inconclusive results. For

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example, Maliha & Sarwat (2019), Hassan et al. (2015), and Tenaw (2013) provide evidence supporting the predictive role of academic self-efficacy, whereas Ochieng' (2015) and Moturi (2012) found mixed or insignificant relationships in specific contexts or subject areas.

Methodological diversity emerges as another key consideration, with studies employing a range of approaches from quantitative analyses to mixed-method designs. For instance, Oyuga, Raburu, and Aloka (2019) advocate for mixed methods to capture nuanced relationships, especially among specific student groups. Moreover, the review integrates studies conducted across different educational settings and levels, such as secondary schools in Kenya (Ochieng', 2015), tertiary institutions in Nigeria (Kolo et al., 2017), and online learning environments (Goulao, 2014), enriching our understanding of how academic self-efficacy manifests across diverse educational landscapes.

The chapter also reviews literature that encompasses research on self-regulated learning (SRL) across various countries and educational levels, highlighting its impact on academic achievement. Tang et al. (2012) found no significant prediction of mathematics performance among international students using SRL strategies, contrasting with Roohani and Asibani's (2015) positive findings. This variability underscores the influence of methodologies and contexts on research outcomes, with experimental designs, correlation studies, and regression analyses all contributing to a multifaceted understanding of SRL's effects on academic success.

Sex differences in SRL and academic self-efficacy constitute another focal point of the review. Drawing from studies in diverse settings like Saudi

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Arabia, Ethiopia, Indonesia, and Pakistan, the review identifies varying utilization patterns of SRL strategies between males and females. While Rohman et al. (2020) observed significant sex differences favoring boys in mathematics learning, Aziz et al. (2017) found no substantial disparities in various learning behaviors among university students in Pakistan. Such findings underscore the complexity of how sex influences learning behaviors and the need for targeted educational interventions.

Throughout the review, gaps in the literature are highlighted, including the necessity for more rigorous control of confounding variables and exploration of cross-cultural variations in academic self-efficacy and SRL effects. The review therefore necessitates research in diverse educational contexts, that considers cultural and contextual factors, particularly in regions like Ghana and other developing countries.
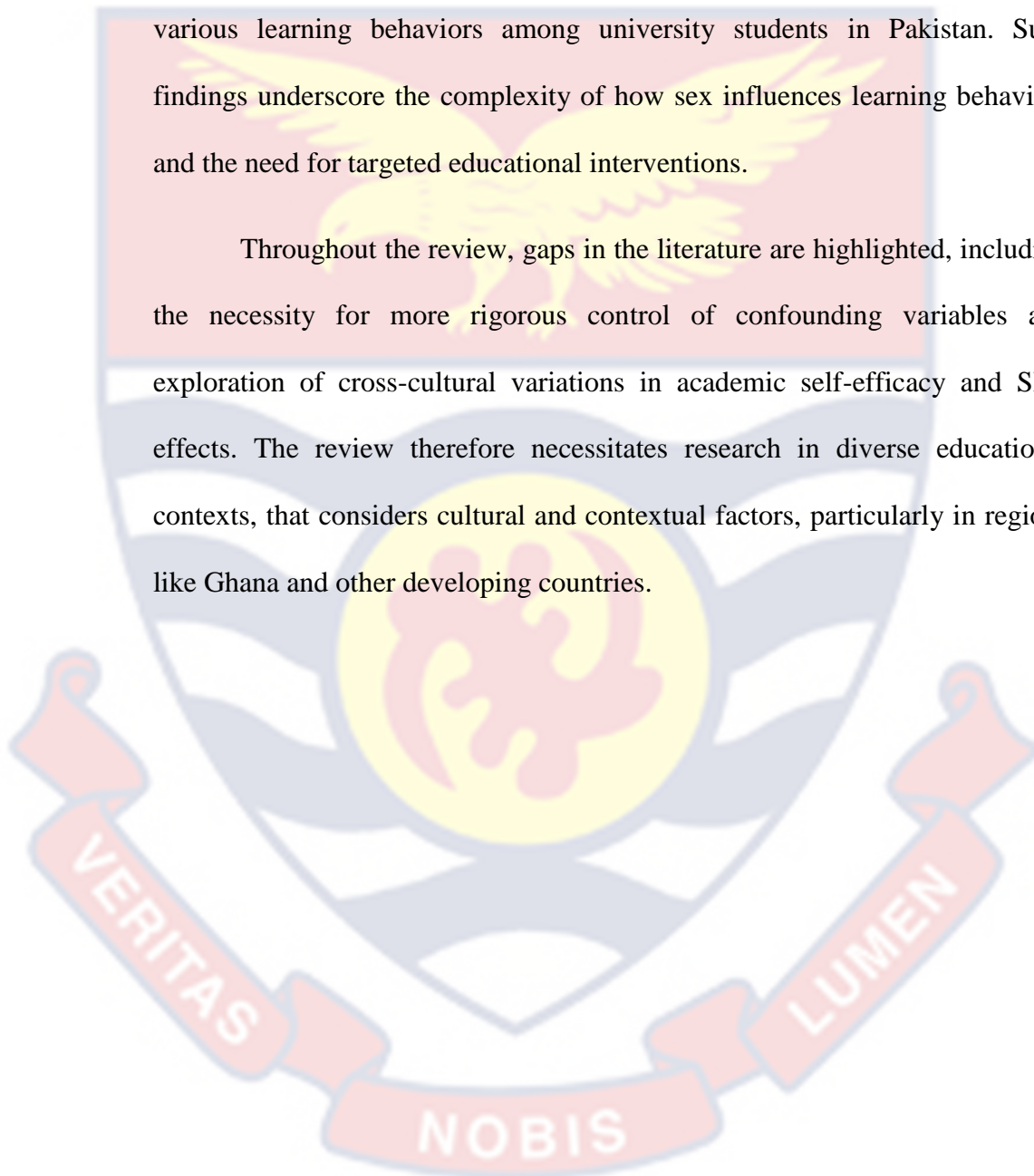
CHAPTER THREE

RESEARCH METHODS

Introduction

Chapter three outlines the specific research methods that were employed in the conduct of this study. This chapter is discussed under specific subheadings which are: the research design, study area, population on which the study was carried out, sample from the population, and sampling technique. Other subheadings comprise the description of steps employed in the collection of data for the study, the data collection instruments, the data analysis plan, and the chapter summary.

Research Design

Research design is basically the structure or blueprint that guides the researcher in the collection and analysis of data for a study (Yin, 2015). Every scientific study requires a robust plan which provides a global framework for addressing the research questions or the hypothesis (Polit, Beck, Hungler &, 2010). Research designs are critical to the success of any scientific study. This is borne out of the fact that the design guides the researcher to discover or foresee certain factors that have the potential to influence the outcome of the study. Upon identifying or anticipating these factors, the researcher puts in place measures to address them properly in order to ensure that the findings of the study are robust and widely accepted. The research paradigm is positivist.

How academic self-efficacy of students as well as their self-regulated learning competency and how these variables influence their academic performance has not been extensively studied in the Municipality. It is for this reason that the study sought to describe the influence of academic self-efficacy

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and self-regulated learning on the academic performance of Senior High School students in the Ho Municipality of the Volta Region. This involved collecting data from respondents and reporting data based on their current status and presenting explicit statements about the relationship that existed between variables in the study. Based on the nature of this research topic, the research design the researcher considers most appropriate for the study was the descriptive survey design. Best and Khan (2016) explained that a descriptive survey design presents a true picture of events and describes the accurate opinion of respondents based on collected data. When a research topic delves into the influence of certain variables on other variables and as well study how both variables are related, descriptive survey design is first considered as a suitable design to examine the nature of the variables as well as explore the relationship that exists among the variables (Creswell, 2015).

Descriptive surveys are also suitable for studies that have not been extensively researched because it helps to carefully examine research problems and provide the basis for further research with other research methods which may be considered more appropriate. It is also useful in reporting phenomena or events in the manner they naturally occur (Amedahe, 2002).

The research approach for the study is quantitative. The quantitative method was used in the collection of data from respondents because the variables being studied yield numerical values and are considered quantifiable in their nature. These variables are; academic self-efficacy, self-regulated learning, and academic performance

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Population

The target population for this study was made up of all students in the five public co-educational Senior High Schools in the Ho Municipality. The study was limited to public co-educational Senior High schools in the Ho Municipality because the remaing two public Senior High Schools are single sex, female-only, schools. Female-only Senior High Schools often have unique characteristics and environments that may favour female students. These schools are designed to create an atmosphere that empowers girls, promotes female role models, and addresses gender-specific needs. Such factors could potentially contribute to higher levels of academic self-efficacy, self-regulated learning, or academic performance among female students in these schools. Including these schools in the study without balancing them with male-only schools might skew the results in favour of females. Also, by narrowing the focus to co-educational senior high schools, the study can achieve a more homogeneous and concentrated sample. This concentration can lead to increased statistical power by reducing the variability within the sample, thereby enhancing the ability to detect significant relationships between academic self-efficacy, self-regulated learning, and academic performance.

The population accessible to the researcher was all form (2) students from five selected schools in the Ho Municipality. Form two students were preferred participants of this study because they had stayed in the Senior High School system for at least one year which made them cover all the topics on which the academic performance tests were set. Form three students were not selected because they were preparing for their West African Secondary School

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Certificate Examinations (WASSCE) and could not get enough time to participate in the study. The form one students were less than three (3) months old in Senior High School at the time the study was instituted and as such had not covered the topics which were used in preparing for the academic performance tests.

Sample and Sampling Procedure

When a researcher selects a proportion of the target population of the study and considers it to be representative of the entire population, the process used in this selection is termed sampling (Polit et al, 2010). Sample and techniques employed in selecting a sample for a study are important for the outcome of the study. Therefore, the sample size and sampling technique used in a study must be suitable to ensure that results are representative enough for generalization (Lance & Hattori, 2016). The accessible population of the study was made up of 1,840 form-two students in five selected Senior High Schools in the Ho Municipality. Out of the 1,840 form-two students, a sample of 322 was selected for data collection based on Krejcie and Morgan's table for the determination of sample size in a study. The Krejcie and Morgan (1970) table indicated that for a study with an accessible population of 1,840, the total sample of 322 is appropriate.

To achieve the adequate representation of all the sample units in the accessible population for the study, purposive, proportional and simple random sampling techniques were used for this study. First, Form (2) students from the five schools were purposively selected because they had been in second-cycle institutions for a significant period and also had enough time to participate in the study.

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Secondly, the entire number of second-year students in each of the selected Senior High Schools was sampled using proportional sampling. A cursory look at the population of the selected schools showed large differences in the number of form two students. To ensure fair representation of all the schools, proportional sampling is required. The total number of form two (2) students in each school was divided by the total population of these second-year students in all the selected schools, and the results were multiplied by the sample size to obtain the required proportion from each school. The formula below was used to select the proportion of the sample from each school.

$$P = F \div A \times S$$

"**P**" in the formula above is the proportion of Form 2 students selected from each school to form the sample for the study

"**F**" is the total number of Form 2 students in each of the schools.

"**A**" represents the accessible population which is the total number of Form 2 students in the five selected Senior High Schools.

"**S**" is the sample size for the study.

Simple random sampling technique, specifically the lottery method was used to select male and female respondents from each of the selected schools for the study. The proportion of male and female respondents was also selected using the formula above, however, "**F**" in this instance meant the total number of Male Form 2 students or Female Form 2 students. The "**P**" in this instance represented the proportion of males or females selected from each Senior High School. After determining the proportion, pieces of papers that equaled the total number of males and females the researcher is interested in were labelled "yes" and the rest were labelled 'no'. These labelled pieces of

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paper were presented to the female group and the male group. Students who selected 'yes' were used in the sample for the study in each of the schools. The breakdown of the sample is presented in Table 1 below.

Table 1: Breakdown of Sample for the Study

School	Form 2 Students	Male	Female	Sample	Male	Female
Mawuli S.H.S	932	426	506	163	75	88
Shia S.H.S	100	74	26	18	13	5
Tanyigbe S.H.S	120	71	49	21	12	9
Sokode S.H.S	386	206	180	67	36	31
Taviefe S.H.S	302	109	193	53	19	34
Total	1840	886	954	322	155	167

Source: Field Survey (2022)

Data Collection Instruments

Data collection instruments used in this study were questionnaires and tests in social studies, English language, core maths, and integrated science. A questionnaire as defined by Dudovskiy (2017) as a research tool that is used in the collection of data from respondents consisting of a set of questions. The information collected from respondents by questionnaire is used for survey or statistical analysis in a scientific study.

A questionnaire is preferred in that it helps in gathering factual information and providing structured numerical data. Additionally, it is direct and easier to analyze and can be administered with or without the presence of the researcher, and also reports appreciable objectivity (Dudovskiy, 2017).

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The variables self-regulated learning and Academic self-efficacy were measured by adapting the Motivational Strategies for Learning Questionnaire (MSLQ) Scale. This scale was developed by Pintrich (1990). It is a scale widely known and used in research. It has been observed that many researchers who have used the MSLQ in their studies have reported high reliability which ranges from 0.90 to 0.95 (Magno, 2011; Cook, Thompson & Thomas, 2011; Pintrich, et al., 1991). The original scale has 81 items with 15 subscales which are put into two broad groups. Thirty-one (31) items for motivation for learning which includes academic self-efficacy and the remaining 50 items which measure learning strategies which include self-regulated learning. Mckeachie and Duncan (2015) have posited that the different scales on the MSLQ can be used together or singly.

The Motivational Strategies for Learning Questionnaire (MSLQ) was adapted for this study. It consisted of 39 items and had three sections A, B, and C, and were structured on a 4-point Likert scale type of 'Strongly agree – 4" "Agree – 3", "Disagree – 2", and "Strongly disagree – 1". Section 'A' had two (2) items and these items which collected the demographic data of respondents in the study. Section 'B' contained eight (8) statements that measured academic self-efficacy. Academic self-efficacy looks at the judgement about one's ability to accomplish an academic task as well as confidence in one's ability to perform that task. Section 'C' contained twenty-nine (29) items that measured Self-regulated learning strategies.

Academic performance tests in the four (4) core subjects were taken by respondents in the study. Each student's average score in these four courses

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was used as the measure of their performance. The core subjects used were Social Studies, English language, Core Mathematics, and Integrated Science.

The tests contained a number of multiple-choice items. These items were constructed by the heads of the department of the core subjects in the Senior High school in line with the Ministry of Education approved teaching syllabus that is used by all teachers at the Senior High School level for their lessons. The items were given to the respective subject officers who work at the Volta Regional education directorate for their expert assessment and suggestions.

The administered tests were collected and marked with the approved marking schemes. Scores of each respondent from the four tests were computed for the mean score which was used as the measure for academic performance. Each of the four achievement tests was scored out of 100.

Test in Mathematics

The mathematics achievement test comprised 40 Multiple-choice questions with options lettered A-D and all items carried equal marks. Topics covered included; Real number system, Algebraic expression, Number bases, relation, mapping and functions, change of subject, ratio, proportion and rates, indices, and percentages. The respondents to the test were given 60 minutes to complete the test.

Test in Integrated Science

This test comprised 40 objective test items. The topics on which the questions were set included; measurement, electrical energy, light energy, diversity of living and non-living things, cell and cell division, ecosystem, soil conservation, states of matter and atomic structure, naming compounds, and

mole concept. The items consisted of a stem and four alternatives from which the respondents are expected to choose the most appropriate option. The 40 questions were scored out of 100. The time allocated for the test was 50 minutes.

Test in the English Language

The English test was also made up of 40 objective test items consisting of a stem and four options lettered A-D. The duration of this test was 50 minutes. The English test covered words and their meaning (Synonyms), words and opposites (Antonyms), interpretation of sentences, subject-verb agreement, prepositions, and numbered gaps.

Test in Social Studies

The social studies test had 40 multiple-choice questions with four options. The respondents were expected to select the appropriate answer from the alternatives lettered A-D. Topics covered include; self-identity, adolescent reproductive health, our culture and national identity, peacebuilding and conflict resolution, resource development and utilization in Ghana, the institution of marriage, socialisation, and our social environment. The duration of this test was 50 minutes.

Validity of the Instrument

Validation of research instruments is necessary to ensure the exactness and precision of deductions that will be made from the research findings (Mugenda & Mugenda, 2003). It is important to establish criterion and construct validity of instruments through pilot testing in order to check the appropriateness of the instrument to be used in collecting data from the sample. Research instruments for this study were presented to my supervisor

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and other experts in the Ho Municipal Directorate of Education for their expert assessment.

Reliability of the Instrument

According to Nitko and Brookhart (2007), reliability is the degree to which a study instrument consistently measures the same characteristic when administered to the same individual or group of people under similar circumstances.

The research instruments used in this study were pretested to ensure that their reliability was established. This was done in Adaklu Senior High School in the Adaklu district. Forty (40) students comprising 24 males and 16 females were used in the pilot study. Adaklu Senior High School was chosen because of its proximity to the study area. Due to its proximity to the Ho Municipality, students of Adaklu Senior High School share similar characteristics with respondents used in this study.

Data from the pilot study were analysed to establish a Cronbach's Alpha reliability coefficient which measured the internal consistency of the scale. Results from this study are presented in the table below.

Table 2: The Reliability Measures of Academic Self-efficacy and Self-regulated Learning Scales

Scales	Cronbach's alpha coefficient
Academic Self-efficacy	0.73
Self-regulated learning	0.82
Overall	0.78

Source: Field survey, 2022

Results from Table 2 above revealed that the Cronbach's alpha coefficients obtained from the pilot study's analysis were higher than the 0.6 reliability alpha threshold for minimum acceptability (Tavakol & Dennick 2011). Therefore the instruments were deemed appropriate and used for data collection in this study

Data Collection Procedure

The Department of Education and Psychology of the UCC issued an introductory letter to the researcher. This letter was attached to a permission letter and given to the management of schools where data were collected. The researcher distributed the questionnaire to the respondents in each school on different days. The academic performance tests were given each day throughout the same period in all of the schools sampled for this study. The researcher and trained research assistants carried out this exercise.

Data Processing and Analysis

The descriptives, frequency, mean, percentages (%), and standard deviation, were used alongside some inferential statistics such as the independent sample t-test, regression, and correlation to analyse the data.

Research questions one and two were answered using means and standard deviation. Pearson's Product Moment Correlation Coefficient (PPMCC) was used in testing the first and second hypotheses. Multiple linear regression was used in testing hypothesis 3. Hypotheses four and five were tested using the Independent Sample t-test.

Ethical Consideration

Ethical clearance was taken from the Institutional Review Board (IRB) of the University of Cape Coast. Ethical considerations are crucial in research work. Issues of respondents' consent, anonymity, and confidentiality were duly addressed in this study by assigning codes to respondents instead of using their real names. Respondents were also encouraged not to feel pressured to take part in the study. All other information provided by respondents in this study was kept on storage devices protected by password.
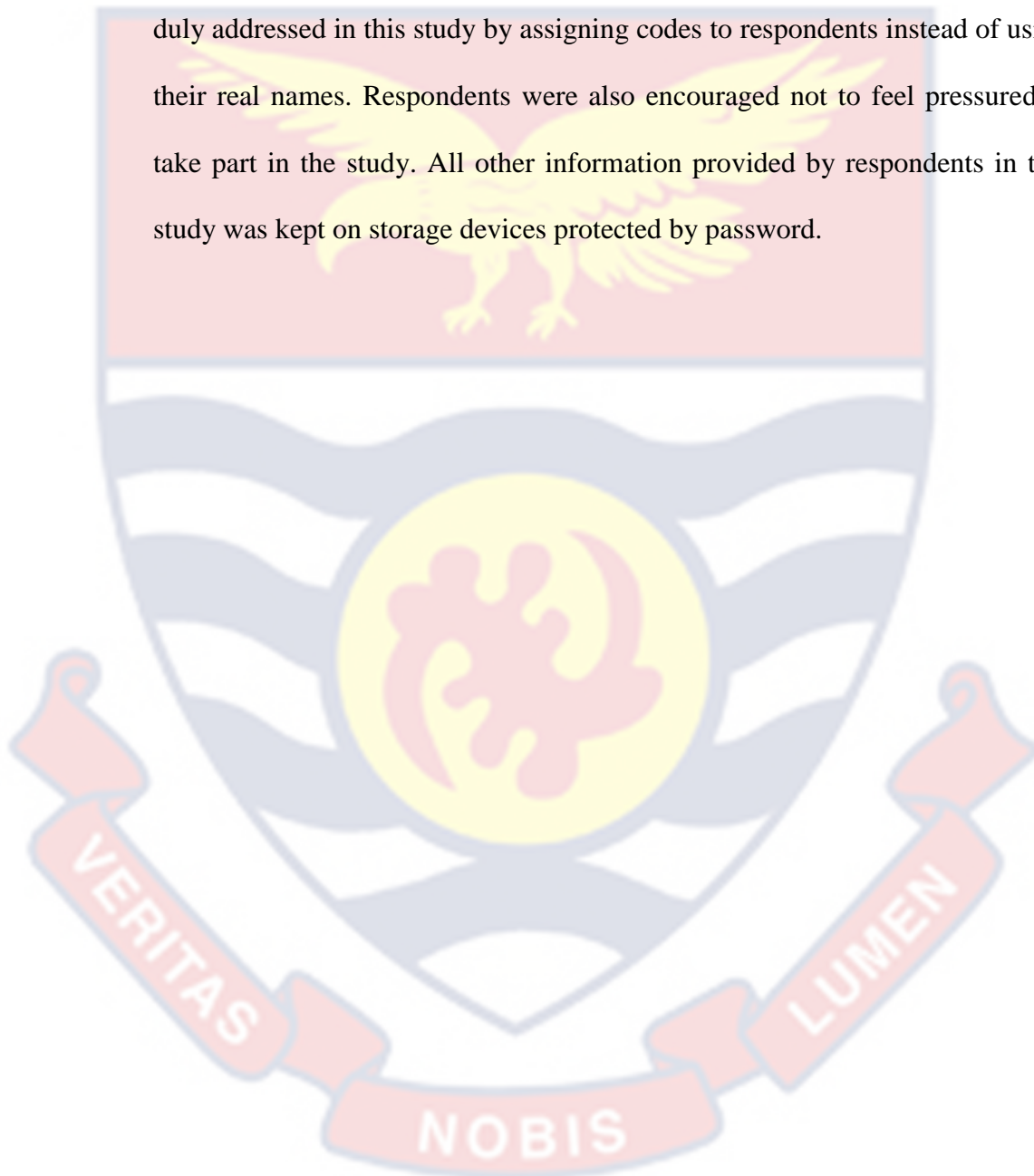
CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The fourth chapter of the study presents the results, findings, and a discussion of these findings. The study intended to study the influence of academic self-efficacy and self-regulated learning on the academic performance of Senior High School students in the Ho Municipality. The Ho Municipality is located in the Volta Region of Ghana.

Purposive, proportional, and simple random sampling strategies were used to select 322 students who formed the sample for the study. Data were collected and analysed using two research questions and five hypotheses. A questionnaire and an academic performance test were used to collect data. The demographics of the respondents were discussed, and the research questions and the hypotheses that were formulated were also analysed and discussed.

Section 'A': Demographic Data

The demographic data of this study focused mainly on the gender of respondents. Other demographics were not considered because they did not form part of the research questions and the hypotheses being considered for the study. Results from the demographic analysis are presented in Table 3 below.

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Table 3: Gender distribution of respondents (N = 322)

Gender	Frequency	Percentage
Male	155	48.14
Female	167	51.86
Total	322	100.0

Source: Field Survey, (2022)

Table 3 displayed the gender of students. One hundred and fifty five male students represented 48.14% of the total sample size for the study and one hundred and sixty seven female respondents represented 51.86%.

Section 'B': Analysis of Main Data

Research Question 1: *What is the level of academic self-efficacy among Senior High School students in the Ho Municipality?*

Research question 1 was intended to find out the level of academic self-efficacy among Senior High School students in the Ho Municipality. The responses to eight items relating to academic self-efficacy were analysed using their composite mean and standard deviation. The items were scored as "Strongly Agree = 4", "Agree = 3", "Disagree = 2" and "Strongly Disagree = 1".

With reference to the four-point Likert-type format, 2.5 was used as a cut-off point. The 2.5 which is used as the cut-off point for the mean was used to determine the level of the students' academic self-efficacy. This benchmark of cut-off was computed using scores of the responses from 4 to 1. The computation was done as follows; 1+ 2+ 3+ 4 = 10/4 = 2.50.

Using this as the standard, any mean value from 2.5 and below represents a low level of academic self-efficacy of respondents. If the mean

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obtained is above the 2.5 benchmark, it is regarded as a high level of academic self efficacy of these respondents.

The results based on the responses selected by the students are presented in Table 4.

Table 4: Level of academic self-efficacy of respondents

Statement	Mean	Std. Deviation
I believe that I can get an excellent grade	3.54	0.61
I'm sure I can understand most difficult topics	3.62	0.55
I'm confident I can understand basic concepts	3.20	0.47
I'm confident I can understand most complex topics	3.41	0.53
I'm confident I can perform very well	3.32	0.51
I expect to do well in this class	3.44	0.51
I'm sure I can master the skills	3.19	0.47
I want do well in class for my family	3.15	0.37
Average of the Means and Standard Deviations	3.36	0.30

Source: Field Survey, (2022)

In Table 4 are the averages and the standard deviations of the responses to each of the items on the self efficacy scale as the respondents provided.

The results indicate that the statement "I am sure I can understand the most difficult topics" recorded a mean of 3.62 and a standard deviation of 0.61. The item scored the highest in the table. This confirms that most of the respondents believed that they have the ability to understand topics that they are taught in class including the most difficult topics. Similarly, respondents also expressed confidence in their ability to do very well in class (M=3.44, SD=0.51). The overall mean of the responses was 3.36 with a standard deviation of 0.30. It is evident from Table 4 that the academic self-efficacy level of respondents was very high based on the cut-off mean of 2.5

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Research Question 2: *What is the level of self-regulated learning among Senior High School students in the Ho Municipality?*

In examining the extent to which students self-regulate their learning, the responses of the respondents were computed and analysed for all the 29 items which are on the self-regulated learning scale. Just as was done for the academic self efficacy, a cut-off mean of 2.5 was used to determine the level of this variable. A score of 2.5 and below was regarded as a low level of self-regulated learning whereas a score above the cut-off was considered a high level of self-regulated learning.

Table 5 displays the results of respondents' self-regulated learning level.
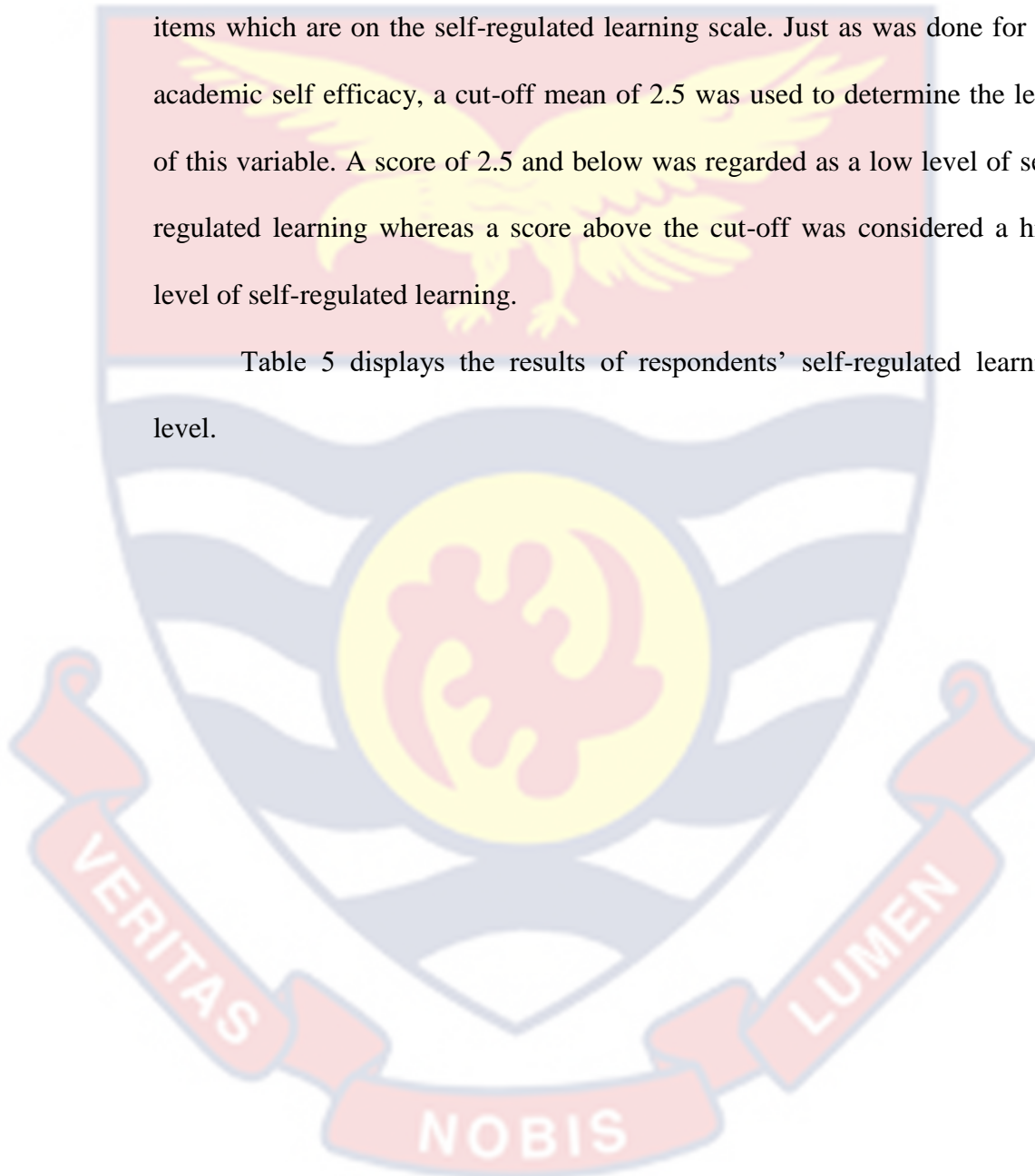
Table 5: Level of Self-regulated Learning among students

Statement	Mean	S
When I am about to study, I set my own questions to guide me	2.67	0.85
When I become confused about something, I go over it	3.51	0.61
If I find difficulty studying, I change the way I study	3.21	0.78
Before I study a new topic, I flip through the pages to see how its organized	3.43	0.67
I ask myself questions to make sure I understand the topics	3.28	0.70
I try to change the way I study in order to adjust to the course	3.09	0.75
I try to think through a topic and decide the most important things I am supposed to learn from it	3.39	0.66
When studying for examination, I try to determine which topics I don't understand	3.42	0.73
When I study, I set goals for myself in order to direct my activities	3.41	1.77
If I get confused taking notes in class, I sort it out after class	3.13	0.80
I usually study in a place where I can concentrate on my studies	3.44	1.87
I make good use of my study time	3.19	0.66
I have a regular place for my studies	2.85	0.95
I make sure I do my assignments on time	3.25	0.73
I attend class regularly	3.61	0.61
I try my best to do well in class even if I don't like the things being taught	3.31	0.71
Even when a particular topic is dull, I try my best to finish it	3.13	0.67
I mostly find myself questioning things I hear or read	3.27	0.73
When I discover something in class, I find out if it is really true	3.31	0.72
I see what I read as foundation to develop my own ideas	3.23	0.67
I try to play around with ideas of my own which are related to what I study in class	3.17	0.76
Anytime I read or hear an assertion in class, I think about possible alternatives	3.17	0.80
During lesson time I often miss important points because I'm thinking of other things	2.57	0.99
I often find that I have studying a lot in class but I don't know why I am studying	3.10	0.99
I find it difficult to stick to my personal study time table	2.22	0.99
I realized that I don't get enough time for my studies because of other activities	2.26	1.01
I hardly find time to revise my notes before exams	2.74	1.02
I often feel lazy or bored when I am studying such that I quit before I finish what I planned to study.	2.40	1.01
When I meet a difficult topic, I either give up or only study the easy parts	2.54	1.11
Average of Means and Standard Deviations	3.08	0.37

Source: Field Survey (2022)

Table 5 displays the means and the standard deviations of the responses of respondents who participated in the study. The scores of the various responses were computed separately before the overall mean is computed. From the table above, a statement such as "When I become confused about something, I go over it" recorded a mean of 3.51 and 0.61 as the standard deviation. This indicated a high level of self-regulated learning ability. This is so because the mean value was higher than the mean cut-off of 2.5.

Again, the item which sought to find out if respondents think through topics they study in class and also discover the key things they are supposed to study from those topics recorded a mean of 3.39 and a standard deviation of 0.66. Again, this shows a high level of self-regulated learning.

In responding to whether students set questions on topics to study in order to guide them to study effectively, a score of 2.67 was obtained which is a narrow escape from the cut-off mean.

It is pertinent to highlight that the mean scores for the items "I find it difficult to stick to my personal study timetable," "I realized that I don't get enough time for my studies because of other activities," and "I often feel lazy or bored when I am studying such that I quit before I finish what I planned to study" were 2.22, 2.20, and 2.40, respectively. These scores fall below the mean cut-off of 2.5, indicating low levels of self-regulated learning specifically on these items.

The average of the means of all the items on this scale was 3.08 which is above the cut-off mean of 2.5. This indicated that the level of self-regulated

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learning among students in the second cycle institutions in the Ho Municipality was very high.

Hypothesis One:

H_{o1}: There is no statistically significant relationship between academic self-efficacy and academic performance of Senior High School students in the Ho Municipality.

H_1: There is a statistically significant relationship between academic self-efficacy and academic performance of Senior High School students in the Ho Municipality

The purpose of this hypothesis was to investigate the relationship, if any, between students' academic self-efficacy and academic performance at the Senior High School in the Ho Municipality. Pearson's Product Moment Correlation (r) was employed in this instance to test the hypothesis. Table 6 summarises the findings of the study.

Table 6: Relationship between academic self-efficacy and academic performance of Senior High School students in the Ho Municipality

		Academic Self-efficacy	Academic performance
Academic self-efficacy	Pearson Correlation	1	.096
	Sig. (2-tailed)		.084
	N	322	322
Academic performance	Pearson Correlation	.096	1
	Sig. (2-tailed)	.084	
	N	322	322

Source: Field Survey (2022)   Significant   p >0.05 (2-tailed)

Table 6 presents the results of the relationship between academic self-efficacy and the academic performance of students based on the Pearson Correlation analysis. According to the findings, there was no statistically significant relationship between academic self-efficacy and student academic performance (r=0.096, p>.05). Based on this data, the researcher fails to reject the null hypothesis, which states that there is not a significant relationship between academic self-efficacy and performance of students in the second cycle institutions in the Ho Municipality of the Volta Region.

Hypothesis Two:

H_{o2}: There is no statistically significant relationship between self-regulated learning and academic performance of Senior High School students in the Ho Municipality.

H_2: There is a statistically significant relationship between self-regulated learning and academic performance of Senior High School students in the Ho Municipality.

In order to determine whether there was a relationship between self-regulated learning and the academic performance of Senior High School students in the Ho Municipality, this hypothesis was tested. Pearson's Product Moment Correlation was employed to test this hypothesis. Table 7 presents the findings.

Table 7: Relationship between self-regulated learning and academic performance of Senior High School students in the Ho Municipality

		Self-regulated Learning	Academic Performance
Self-regulated Learning	Pearson Correlation	1	.561*
	Sig. (2-tailed)		.000
	N	322	322
Academic Performance	Pearson Correlation	.561*	1
	Sig. (2-tailed)	.000	
	N	322	322

Source: Field Data (2022)   Significant p<0.05(2-tailed)

According to the findings in Table 7, there is a statistically significant correlation between Senior High School students in the Ho Municipality's performance in school and how they self regulate their learning (r=0.561, p<0.05). The correlation coefficient indicated that the variables had a moderately positive association. This suggested that as academic performance increases, self-regulated learning competency also increases. Therefore, the null hypothesis, which says that there is no statistically significant relationship between self-regulated learning and academic performance, has been rejected in light of the evidence presented here.

Hypothesis three

H_{03}: Academic self-efficacy and self-regulated learning will not predict the academic performance of Senior High School students in the Ho Municipality.

H_3: Academic self-efficacy and self-regulated learning will predict the academic performance of Senior High School students in the Ho Municipality.

This hypothesis investigated whether the level of academic self-efficacy of students as well as their self-regulated learning competency influenced the performance of Senior High School students in the Ho Municipality. Multiple linear regression was used as the main statistical tool for the analysis. Table 8 displays the results of the test.

Table 8: Model Summary

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.894			6.062	.000
Academic Self-efficacy	.221	1.269	.008	.174	.862
Self-regulated Learning	12.103	1.015	.559	11.919	.000
R	.561a		F Change	73.192	
R Square value	.315		P value	.000	
Adjusted R Square	.310		Durbin-Watson	1.672	

a. Predictors: (Constant), Self-regulated learning, Academic self-efficacy
b. Dependent Variable: Academic performance

Source: Field Data survey (2022)   Significant P<0.05

The regression model was statistically significant ($p < 0.05$), according to the results shown in Table 8. Academic self-efficacy and self-regulated learning predicted 31.5% of the variation in the performance of students of second-cycle institutions in the Ho Municipality. The multiple correlation

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coefficient of 0.561 reveals a moderate and positive association between academic self-efficacy and self-regulated learning.

To ensure that the variables do not autocorrelate, the Durbin-Watson statistic was computed and a value of 1.672 was obtained as it is displayed in Table 8. This value checks whether or not there was autocorrelation in the residuals from the regression analysis made. It also determines whether the assumption of independent errors is acceptable or otherwise. As a rule of thumb, values obtained within this range of $1.5 < d < 2.5$ indicates that there is no auto-correlation observed in the multiple linear regression data. The 'd' represents the Durbin-Watson statistic. The 'd' value (1.672) confirmed that indeed, there was no auto-correlation in the sample.

Self-regulated learning had a statistically significant influence (t=11.919, p <.05). However, the effect of academic self-efficacy was not statistically significant (t=0.171, p>.05). The respondents on the whole demonstrate a high level of self efficacy in their academic work. It is therefore, baffling that this high score did not lead to improvement in the performance in the tests conducted. Findings from this research as displayed in the above table suggested that the only factor that substantially predicted students' academic performance was their self-regulated learning competencies. Academic self-efficacy, however, could not be regarded as a major predictor of students' performance.

Hypothesis Four:

H_{04}: There is no statistically significant difference between the academic self-efficacy of male and female Senior High School students in the Ho Municipality.

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H[4]: There is a statistically significant difference between the academic self-efficacy of male and female Senior High School students in the Ho Municipality.

This hypothesis tested if academic self-efficacy differed between the male and female respondents. The analysis was carried out using the independent sample t-test with a significance threshold of 0.05. The outcomes are displayed in Table 9 below.

Table 9: Differences in academic self-efficacy of male and female Senior High School students

Gender	N	Mean	SD	Df	t-value	p-value
Male	155	3.39	0.326			
				320	1.839	.067
Female	167	3.33	0.269			

Levene's Test for Equality of Variances		
	F	SIG
Equal variances assumed	8.559	0.067
Equal variances not assumed		

Source: Field data (2022)

There is no statistically significant difference (t(1.83) =.067, p>0.05) between the academic self-efficacy of male and female Senior High School students in the Ho Municipality, according to analysis of the results in Table 9

The results, however, showed that male students performed better on average (M=3.39, SD=0.32) than female students (M=3.33, SD=0.26); however, this difference was not statistically significant (t (1.83) = 0.067, p>0.05). The Levene's test for equality of variances in Table 9 above reported

a significant value of .067 which is greater thatn the .05 significant level. This implies that equality of variance can be assumed.

Hypothesis Five:

H_{05}: There is no statistically significant difference between self-regulated learning of male and female Senior High School students in the Ho Municipality.

H_5: There is a statistically significant difference between self-regulated learning of male and female Senior High School students in the Ho Municipality.

In order to determine if male and female Senior High School students in the Ho Municipality had different levels of self-regulated learning capacity, hypothesis five (5) was tested. At a significance threshold of 0.05, the independent samples t-test was employed to test the hypothesis. The findings are shown in Tables 10.

Table 10: Differences in self-regulated learning of male and memale Senior High School Students

Gender	N	Mean	SD	Df	t-value	p-value
Male	155	3.11	0.348			
				320	1.609	0.109
Female	167	3.05	0.398			

Levene's Test for Equality of Variances		
	F	SIG
Equal variances assumed		
Equal variances not assumed	1.568	.211

Source: Field data (2022)

The results in Table 10 show that male students' self-regulated learning abilities (M=3.11, SD=0.34) did not significantly differ from those of their female peers (M=3.05, SD =0.39). Additional information revealed a p-value of 0.109 and a t-value of 1.609. As shown above, the mean score of the male students is higher than the score recorded for the female students but this score was not high enough to be considered statistically as a significant difference.

According to the results obtained, there is no statistically significant difference in self-regulated learning between male and female Senior High School students. The null hypothesis that there is no statistically significant difference in the self-regulated learning abilities of male and female students, was not rejected by the researcher. The Levene's test for equality of variances in Table 10 reported a significant value of .211 which is greater thatn the .05 significant level. This implies that equality of variance can be assumed.

Discussion

Level of Academic Self-efficacy

The first research question of this study sought to determine the level of academic self-efficacy among Senior High School students in the Ho Municipality. From the results of the study, it became evident that students generally have high levels of academic self-efficacy. Most of the respondents indicated high confidence in their academic potential.

In fact, learners being highly efficacious is not peculiar to the second-cycle students in the Ho Municipality. Similar observations were made at both the pre-tertiary and tertiary levels globally. The research findings of Seyedi-ANdi, Bakouei, Adib-Rad, Khafri, and Salavati (2019) who found that students at Babol University of Medical Sciences had high levels of academic

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self-efficacy confirm the results of this study. They carried out their study in one of the most reputable medical schools in the Middle East and specifically in Iran, the Mazandaran district. In other parts of Ghana, specifically in the Mampong Municipality, Agyemang (2020) found that students had a high level of academic self-efficacy. They were quite confident of their capacity to do well in their academic work in school. Their responses to the questionnaire showed that they believed they have the required potential and with a conducive academic environment and considerable effort, they will excel in school.

In the Phillippines, Tus (2020) studied self-related perceptions including self efficacy, and collected data on 190 12th-grade high school students of St. Paul College of Bacaue in the Bulacan district for analysis. What he found from the study was that the students of the college had a high degree of self efficacy even though it did not translated into an increase in their academic achievement.

In Europe and the Americas, Broadbent and Honicke (2016) in their systematic review of self efficacy studies discovered that learners in both tertiary and pre-tertiary generally possess a high degree of confidence in their academic capabilities.

Students who are highly efficacious in their academic work have confidence that this will positively affect their life events and also contribute significantly to their success in school. However, students who lack this confidence believe that they are unlikely to be successful at academic tasks especially those that are quite challenging (Maddux & Gosselin, 2012).

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Despite the many studies that shared a similar view with the discoveries made in this study, the findings of this study, however, contrasted the findings by Ochieng' (2015) who found in his research that there was a relatively low level of academic self-efficacy among Senior High School students in Kenya.

Level of Academic Self-regulated Learning

The data gathered on the second variable, self-regulated learning, showed that the majority of the respondents regulate their own learning by setting well-defined targets for themselves, employing the appropriate learning strategies, and monitoring their progress until they record success at an academic task they are assigned. This was the case in another study by Nabizadeh, Hajian, Sheikhan and Rafiei (2019) who collected data on 380 students in the medical sciences where they reported that the students generally have high level of self-regulated learning competency.

A study carried out on Senior High School students in the Bono Region specifically in the Berekum Municipal showed that students scored highly with respect to how they regulate their learning. The outcome of this study corroborated the finding of this study in the Volta Region of Ghana.

Foong et al (2021) in their qualitative study on self-regulated learning among medical students also reported a high level of self-regulated learning among students. Though Foong et al (2021) used the qualitative approach, unlike the other previously mentioned studies which largely relied on the quantitative approach, the same observation of a high degree of self-regulated learning ability among students was found.

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In contrast, the data collected on a sample of 652 students chosen from 26 Colleges of Education in Ghana, Mahama et al. (2022) observed that the majority of the respondents who were used in the study reported a low degree of self-regulation in their learning. They noted that some others, however, reported moderate and high degree in their self-regulated learning capacities.

Relationship between Academic Self-efficacy and Academic Performance

Comparing students' confidence in their academic capacity to actual improvement in performance, no significant relationship was identified between senior high school students in the Ho Municipality's academic self-efficacy and academic performance, according to the results of the study. It was initially anticipated that confidence in one's ability to be successful at a given task will most like contribute to real success on the task but this was not the case for academic self efficacy in the study. Agyeman (2020) looked at gender, self-esteem, and academic self-efficacy as potential predictors of academic performance among students in the Mampong Municipality in the Ashanti Region of Ghana. His research revealed just like this study that no statistically significant relationship was reported between academic performance and self-efficacy.

Delving into the possible causes of a case such as this, Koseoglu (2015) stated that academic self-efficacy could not strongly influence academic achievement on its own without being mediated by other motivational factors. This partly implies that in the absence of the said motivational factors, academic self-efficacy cannot be considered a correlate of the academic performance of learners. Strelnieks (2005) suggested that

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other variables, such as gender, socio-economic background, and individual student effort, influenced the impact of academic self-efficacy on academic performance.

The results of a study by Moturi (2012) on the relationship between academic self-efficacy and academic performance in Mathematics and English among secondary school students in Nyamira District in Kenya also did not find a significant relationship between these two variables. In that same year, Li (2012) conducted a study on students of Hong Kong university. After a regression analysis on 153 respondents, he also discovered that self-efficacy did not play any major role in the academic performance of these students.

Contrary to the discoveries of the studies discussed earlier, a number of other research, found a strong link between academic performance and academic self-efficacy (Ali, Wan & Nobaya, 2017; Aurah, 2013; Meral, Colak & Zereyak, 2012). Maliha and Sarwat (2019) also argued quite strongly that there exists an association between the performance of trainee students and their self efficacy levels in the academic environment. This was based on a study they conducted on 135 teacher trainees in an institute of education in Punjab.

The inconclusive findings on the clear-cut relationship between academic self-efficacy and academic performance may call for further research. Suggested mediating variables as stipulated by Strelnieks (2005) could also be examined on the subject to ascertain the true relationship between these two variables.

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Relationship between Self-regulated Learning and Academic Performance

Unlike academic self-efficacy, the findings of this study bring to bare a strong relationship between self-regulated learning and the performance of the second cycle school students who were part of this study. In another study conducted earlier, Soi (2017) found that the mean of high school students on how they regulate their learning was quite high. When he did the same for the performance also, he noticed that it was high as well. Further correlational analysis of both variables proved that there was a significant association between them. Cakiroglu and Sungur (2015) made the same observation prior. They found a significant relationship between the two variables. Several other studies (Roohani & Asibani, 2015; Juliana, 2014; Alegre, 2014) found a significant relationship between self-regulated learning and successful academic performance, notably among high school students. These findings support the results of this study.

In a subject-specific research work conducted in a high school in Turkey, Cakiroglu, Sungur, and Yumusak (2007) discovered a statistically significant correlation between Biology performance and self-regulated learning. They also noted a strong link between the general academic performance of high school students and their self-regulated learning competencies.

Soi (2017) discovered in another setting that students with high mean scores in self-regulated learning also had high mean scores in academic performance. A subsequent correlation study found a statistically significant relationship between self-regulated learning and academic performance.

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However, no significant relationship was identified between self-regulated learning and academic achievement in some other scientific studies (Somaye, 2014; Loong, 2012; Juanita, 2008). The majority of the studies examined, however, found a significant relationship between self-regulated learning and academic achievement, which is corroborated by the findings of this study.

Predictive ability of Academic Self-efficacy and Self-regulated Learning to Academic Performance

Further analysis of these two variables to determine their predictive power on academic performance revealed that out of the two, only the self-regulated learning competency of learners significantly predicted their academic performance. This affirmed the findings made by Juliana (2014). Despite alluding to the fact that learning academic outcomes are largely predicted by their ability to self-regulate their learning, she also found out there were other motivational variables that were stronger predictors of academic performance.

The results of LaForge-MacKenzie and Sullivan (2014), who found that academic self-efficacy was not a significant predictor of academic performance, are consistent with the results of this research work. Similarly, Pajares and Schunk (2001) highlighted that in instances where academic self-efficacy beliefs were proven to be unrelated to achievement outcomes, the predictive power of academic self-efficacy was substantially reduced. Results of this study showed that respondents were highly efficacious however, this attribute did not predict their academic performance. In contrast, Ogunmakin and Akomolafe (2013) discovered that academic self-efficacy, academic

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motivation, and academic self-concept played a significant role in the prediction of the academic performance of secondary school students in Ondo State, Nigeria.

Sex Differences in Academic Self-efficacy and Self-regulated Learning

The academic efficacy level of males and females in second cycle institutions in the Ho Municipality was compared in this study. The results of this study indicated that female students were at par with their male counterparts with regards to academic self efficacy. Specifically, no statistically significant difference was recorded between the academic self-efficacy of both male and female Senior High School students in the Ho Municipality.

On the contrary, other studies point to sex differences in academic self-efficacy (Lockdrige, 2018; Wang, 2017; Busch, 2005). Fahle, Lee, and Loeb (2019) specifically reported that male students showed a higher level of academic self-efficacy than their female counterparts from middle school onward. Bhagat (2016) who also conducted a study on sex differences in the academic self-efficacy of High School students in Tirana, Albania made the same discoveries. Females did differ significantly from their male counterparts in terms of academic self-efficacy. Huang (2013) in explaining the inconsistencies in research findings on the sex differences in academic self-efficacy suggested that sex differences in academic self-efficacy differed with age.

The study finally looked at sex differences in self-regulated learning of students in the second cycle institutions in the Ho Municipality. No significant

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difference was recorded in this regard. This validates the findings of Aziz, Qureshi, and Khanam (2017) in a study conducted in four different institutions in Pakistan to look at how male and female students differed in self-regulated learning. They found no significant difference between male and female students in terms of self-regulated learning.

Zimmerman and Martinez-Pons (1989) however, argued that sex differences exist in self-regulated learning. This was premised on a study they conducted on American high school students in New York. The findings of their study revealed that girls self-regulated their learning more by keeping track of their progress as compared to boys. A later study by Alasmari and Ishmail (2012) affirms the findings of Zimmerman and Martinez-Pons (1989). They discovered male high school students self-regulated their learning better than female high school students.

Chapter Summary

This chapter presented the results and discussion of this study. It was found that Senior High School students in the Ho Municipality had high levels of academic self-efficacy and self-regulated learning. Despite the high levels of these variables, only self-regulated learning significantly predicted the academic performance of students. Similarly, there was a significant relationship between self-regulated learning and the academic performance of respondents.

Finally, the results of the study further indicate that there was no sex difference in academic self-efficacy and self-regulated learning among respondents.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the summary and conclusions arrived at based on the findings of this study are presented. Also, highlighted were recommendations and suggestions for future research.

Summary of Study

The goal of the study was to determine how academic self-efficacy and self-regulated learning among Senior High School students in the Ho Municipality influenced their academic performance. The research design employed in this study was a descriptive survey. Five hypotheses and two research questions were formulated to guide the study's data collection and analysis.

Purposive, proportional, and simple random sampling techniques were used to sample 322 respondents for the study which comprises 155 males and 167 females. Respondents were made to take tests in Mathematics, Social Studies, English language, and Integrated Science and the average performance in these four core subjects was used as the measure of the academic performance of respondents. The Motivational Strategies for Learning Questionnaire (MSLQ) scale was used to measure the academic self-efficacy and self-regulated learning competencies of respondents.

Descriptive statistics – means and standard deviations were used in this research work to analyse the responses from which the inferences were made. Research questions one and two were analysed using mean and standard deviation. Hypothesis one and two were analysed using Pearson's Product

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Moment Correlation Coefficient (PPMCC). Multiple linear regression was used to test hypothesis three. Hypotheses four and five on the other hand were tested using the Independent sample t-test.

Key Findings

The findings from this study showed that Senior High School students in the Ho Municipality have a very high level of academic self-efficacy. These same students also reported a high level of self-regulated learning ability.

Results from this study established a positive significant relationship between self-regulated learning and academic performance among the respondents. The study, however, did not find a significant relationship between academic self-efficacy and academic performance of the students.

Similarly, the study established that self-regulated learning significantly predicts academic performance whereas academic self-efficacy was not found to be a significant predictor of academic performance even though respondents recorded a high level of academic self-efficacy.

Finally, the findings of this study did not establish a significant sex difference in academic self-efficacy and self-regulated learning. Both males and females did not show a significant difference in their academic self-efficacy and their self-regulated learning capabilities.

Conclusions

As a result of the findings of this study, it can be concluded that Senior High School students in the Ho Municipality have a high level of academic self-efficacy and also a high level of self-regulated learning ability. This implies that these students generally believe in their ability to do well academically. The findings also suggest that students take an active role in

their learning environment and keep track of their progress when completing academic tasks. This conclusion is also based on the high level of self-regulated learning abilities reported by the students.

The study also concludes that there was no significant relationship between academic self-efficacy and academic performance among Senior High School students in the Ho Municipality. This was a surprise because based on the high level of academic self-efficacy reported by students, it was anticipated that it could translate into improvement in their academic success. This indicates that students' belief in their ability to achieve academic success will not necessarily result in high academic performance.

However, the study concludes that there exists a significant relationship between self-regulated learning and academic performance. This implies that students who self-regulate their learning will maximize their academic success.

Finally, the findings of this study conclude that male and female students at the Senior High School level did not differ significantly in their academic self-efficacy and also their ability to self-regulate their learning.

Recommendations

The following recommendations have been provided based on the findings of the study.

Senior High School teachers in the Ho Municipality must develop strategies to improve self-regulated learning among students. This can be done by introducing learning goals more often to students in the classroom. Constructive feedback from teachers will also help students to monitor their progress on academic tasks. In light of the new educational reforms in Ghana

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which places a premium on learners playing an active role in the teaching and learning process, the teaching of self-regulated learning skills must be encouraged.

The Ho Municipal directorate of Education must liaise with other stakeholders in education to regularly organise workshops for Senior High School teachers to train them adequately on teaching strategies that will promote and sustain the high level of self-regulated learning ability among students. They must also implement systems to monitor the integration of self-regulated learning strategies in classroom and regularly evaluate their effectiveness in improving academic performance.

Policy makers, including curriculum developers must develop curriculum materials that explicitly teach and reinforce self-regulated learning skills across different subjects and grade levels. They must also provide resources such as lesson plans, assessment tools, and teacher guides that support the implementation of self-regulated learning practices in classrooms

Suggestions for Further Research

Future research should focus on identifying the mediating factors between academic self-efficacy and academic performance.

Future studies should also consider the influence of academic self-efficacy and self-regulated learning on academic performance at the Junior High School level as well as at the tertiary level in Ghana.

Further studies can be conducted using the qualitative or mixed method approaches to unravel the reason behind some of the findings in this study. For example, the lack of a statistically significant relationship between academic self-efficacy and self-regulated learning can be examined qualitatively.

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APPENDICES

APPENDIX A

Clearance from Ethical Review Board

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY PO ST OFFICE
CAPE COAST, GHANA

Our Ref: CES/ERB/ucc/edu/vcb2-147

Your Ref: ....

Date: 4th November, 2022

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

The bearer, Benjamin K. Dake, Reg. No. EF/PPE/20/0010 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:

Influence of academic self-efficacy and self regulated learning on academic performance among senior High students in the Ho 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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APPENDIX B

Introductory Letter from Department of Psychology, UCC

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:

4th May, 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION
MR. BENJAMIN KOJO DAKE

We introduce to you Mr. Dake, 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. Dake is researching on the topic:

"INFLUENCE OF ACADEMIC SELF-EFFICACY AND SELF-REGULATED LEARNING ON ACADEMIC PERFORMANCE AMONG SENIOR HIGH SCHOOL STUDENTS IN THE HO MUNICIPALITY."

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,

Gloria Sagoe
Chief Administrative Assistant
For: HEAD

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APPENDIX C

UNIVERSITY OF CAPE COAST

QUESTIONNAIRE ON ACADEMIC SELF-EFFICACY, SELF-REGULATED LEARNING AND ACADEMIC PERFORMANCE

Dear respondent,

I am a student of the above university conducting a study on the influence of academic self-efficacy and self-regulated learning on academic performance. This questionnaire is strictly for research purposes only. Your sincere response will contribute to the success of this research work. Your responses will be treated with strict anonymity and confidentiality. For this reason, your name is not required.

SECTION 'A': DEMOGRAPHIC DATA

Please tick (√) the most appropriate as it pertains to you.

Sex   A. Male [   ]   B. Female [   ]

Name of School ……………………………………………………

SECTION 'B': The questionnaire below is a scale for academic self-efficacy and self-regulated learning.

Instruction: For each of the statements below, mark the response that best describes you. Tick (√) the most appropriate using the following keys

1= Strongly Disagree   2= Disagree   3 = Agree   4= Strongly Agree

	ACADEMIC SELF EFFICACY	1	2	3	4
1.	I believe I can get an excellent grades in all the subjects I study in class				
2.	I'm sure I can understand the most difficult topics in all the subjects I study				
3.	I'm confident I can understand the basic concepts my teacher explains in class				
4.	I'm confident I can understand the most complex topics my teacher teaches in class				
5.	I'm confident I can perform very well in my assignments and class tests.				
6.	I expect to do very well in this class.				
7.	I'm very sure I can master the skills that will be taught by my teachers.				
8.	I want to do well in class because it is important to show my ability to my family, friends, or others.				

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	1= Strongly Disagree 2= Disagree 3 = Agree 4= Strongly Agree				
	SELF-REGULATED LEARNING	**1**	**2**	**3**	**4**
1.	During lesson time I often miss important points because I'm thinking of other things.				
2.	When I am about to study a particular topic, I set my own questions to guide me study.				
3.	When I become confused about something I am studying, I go over it again and try hard to understand it.				
4.	If I find difficulty whiles studying a particular topic, I change the way I study it to help me understand it.				
5.	Before I study a new topic in my textbook, I flip through the pages to see how the topic is organized or presented.				
6.	I ask myself questions to make sure I understand the topics I study.				
7.	I try to change the way I study in order to adjust to the course requirements and the teaching style of my teachers.				
8.	I often find that I have been studying a lot in class but I don't know why I am studying.				
9.	I try to think through a topic and decide the most important things I am supposed to learn from it instead of just reading it anyhow.				
10.	When studying for examination, I try to determine which topics I don't understand well so I can give more time to them.				
11.	When I study, I set goals for myself in order to direct my activities in each study period.				
12.	If I get confused taking notes in class, I make sure I sort it out after the class.				
13.	I usually study in a place where I can concentrate on my studies				

1= Strongly Disagree   2= Disagree   3 = Agree   4= Strongly Agree

		1	2	3	4
14.	I make good use of my study time				
15.	I find it difficult to stick to my personal study timetable				
16.	I have a regular place I have chosen for my studies				
17.	I make sure that I do my assignments on time				
18.	I attend class regularly				
19.	I realized that I don't get enough time for my studies because of other activities				
20.	I hardly find time to revise my notes before exams				
21.	I often feel so lazy or bored when I am studying such that I quit before I finish what I planned to study				
22.	I try my best to do well in class even if I don't like some of the things being taught.				
23.	When I meet a difficult topic, I either give up or only study the easy parts				
24.	Even when a particular topic is dull, I try my best to finish it well.				
25.	I mostly find myself questioning things I hear or read to see if they are convincing				
26.	When I discover something in class or when studying, I try to find out if it is really true				
27.	I see what I read as foundation and I try to develop my own ideas from it				
28.	I try to play around with ideas of my own which are related to what I study in class				
29.	Any time I read or hear an assertion or conclusion in class, I think about possible alternatives				

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APPENDIX D

TEST IN ENGLISH LANGUAGE

OBJECTIVE TEST

Answer all questions in this section by selecting the correct option

from the options lettered A-D

DURATION: 50 MINUTES

SECTION 'A'

INSTRUCTION: Choose from the alternatives lettered A to D the one which is <u>nearest in meaning </u>to the underlined word in each sentence

1. It is the <u>pressure</u> of work that has necessitated his early retirement.

   A. strain   B.weight   C. volume   D. bitterness

2. After the match it was obvious that the referee was <u>biased.</u>

   A. generous   B. lenient   C. partial   D. favourable

3. Throughout the examination, Oko was <u>nervous.</u>

   A. cool   B. irritated   C. jittery   D. alert

4. What a <u>lame</u> excuse for arriving so late.

   A. cheap   B. weak   C. tenable   D. plausible

5. She vowed to <u>avenge</u> the inhuman treatment meted out to her.

   A. Retaliate   B. repay   C. return   D. reciprocate

6. Space travelers set <u>sterling</u> examples of endurance.

   A. promising   B. surpassing   C. outstanding   D. motivation

7. The unforgettable learning experience has <u>fortified</u> my determination

   A. promoted   B. mounted   C. boosted   D. assisted

8. Little Andy was given a drug to <u>suppress </u>his hyperactivity

   A. crush   B. conquer   C. restrict   D. control

9. Prejudice often <u>distorts</u> people's perception of others.

   A. Disturbs   B. warps   C. eliminates   D. reduces

SECTION II

INSTRUCTION: In each of the following sentences, a word has been underlined and one gap. Choose from the alternatives lettered A to D the one that is most _nearly opposite_ in meaning to the underlined word and that will, at the same, correctly fill the gap in the sentence.

10. The sound from Abigail's recorder was…… rather than <u>audible</u>

    A. muffled   B. peaceful   C. noisy   D. blurred

11. Adding much salt to food at table is ……… to the heart not <u>beneficial</u>

    A. hurtful   B. abusive   C. injurious   D. offensive

12. The leader's presence inspired a measure <u>tranquility</u> following a period of ……

    A. damage   B. protest   C. action   D. unrest

13. Instead of being <u>gentle</u> with the frightened child, Tom was rather

    A. brisk   B. firm   C. brash   D. harsh

14. I felt very <u>agitated</u>when he confronted me yet I maintained a ……..
    demeanor.

    A. brave   B. calm   C. strict   D. gentle

15. It is inspiring how the actor rose from <u>obscurity</u> into …….

    A. opulence   B. prominence   C. brightness   D. royalty

16. Even though the president gave his <u>assent</u> to the appointment, others expressed…

    A. disapproval   B. disregard   C. disrespect   D. dismay

17. The <u>wilting</u> plants were…. by the recent rains.

    A. destroyed   B. cleared   C. revived   D. drowned

SECTION III

INSTRUCTION: After each of the following sentences, a list of possible interpretations of all or part of the sentence is given. Choose the interpretation you consider most appropriate for each sentence.

Choose from the alternatives lettered A to D, the one that best explains each sentence.

18. When Joe got there, he decided to strike while the iron was hot. This means that Joe

    A. Attacked the people he met there   B. Finished all his work in good time

    C. Took daring decisions   D. Too advantage of the situation

19. Ever since Kodia disgraced my niece in public, she kept him at arm's length. This means that my niece

    A. Doesn't want to get close to Kodia   B. Has broken ties with Kodia

    C. Calls Kodia frequently   D. Hates everything that Kodia does

20. Mohammed poured cold water on our plans. This means that he

    A. Altered our plans   B. Criticized our plans

    C. Knew about our plans   D. Revised our plans

21. The survivors did not lose heart although their rescue was delayed. This means that they

    A. Refused to give in to threats   B. Managed to sustain their lives

    C. Did not despair   D. Did not experience any loss

22. The new salary increases were across the board. This means that the increases …

    A. Were very impressive   B. Affected all board members

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    C. Were approved by the board   D. Affected by

    workers

SECTION IV

INSTRUCTION: Choose from the options lettered A-D the one that bests completes each of the sentences below

23. He was the only one among the boys who ………….bored.

    A. were   B. are   C. being   D. was

24. If she ……..your Senior Prefect, would you insult her?

    A. were   B. was   C. is   D. would be

25. The farmer, as well as his sons………..maize.

    A. grow   B. were growing   C. grows

        D. have been growing

26. In Animal Farm, Orwell ………….. about the evils of communism.

    A. has been writing   B. writes   C. will write

        D. will be writing

27. They are anxious …………… the examination results.

    A. about   B. by   C. at   D. with

28. The accused admitted…………… four previous armed robberies.

    A. For   B. To   C. In   D. At

29. Most people are prone ……….. conflicting emotions.

    A. by   B. to   C. from   D. with

30. His natural modesty always inclined him to ……….. his own achievements.

    A. play down   B. play back   C. play up   D. play on

31. He was put………… by his friend's incessant chatter.

    A. through   B. off   C. down   D. in

SECTION V

In the following passage the numbered gaps indicate missing words. Against **each** number in the list below the passage, four choices are offered in columns lettered **A** to **D**. For each numbered gap, choose from the options provided for that number, the word that is **most suitable** to fill the gap

Countries all over the world, rely on their – 32 – resources for development. These resources vary from country to country. The discovery of crude oil – 33 – in any country is greeted with excitement because it is considered a valuable source of – 34 – for the government. Once it has been discovered by – 35– , who would have been prospecting for it, an oil – 36 – is drilled until the petroleum reservoir is reached.

Natural – 37 –, another valuable resource, may be found at the same time. – 38 – oil is usually conveyed through a – 39 – directly to the – 40 – where it is processed.

	A	B	C	D
32.	rich	profitable	natural	vast
33.	reserves	stocks	preserves	stores
34.	savings	revenue	salary	accounts
35.	geologist	ecologists	anthropologist	archaelologists
36.	rig	well	plant	hole
37.	liquid	gas	carbon	chemical
38.	undiluted	crude	unfinished	raw
39.	tunnel	tube	hose	pipeline
40.	purifier	factory	industry	refinery

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APPENDIX E

TEST IN INTEGRATED SCIENCE

OBJECTIVE TEST

Answer all questions in this section by selecting the correct option from the options lettered A-D

DURATION: 50 MINUTES

1. The following measuring instruments are length measuring devices except
   A. Metre rule   B. Speedometer   C. Spherometer
   D. Venier caliper

2. The diameter of a drinking cup can be measured using a
   A. Micrometer screw gauge   B. Venier caliper
   C. Spherometer   D. Spring balance

3. The mass of a body remains constant at all places because
   A. of the tendency of the body to remain at rest
   B. mass depends solely on distance between molecules of a body
   C. mass does not depend on acceleration due to gravity
   D. matter can neither be created nor destroyed

4. A piece of metal of volume of 25cm^3 has a mass of 45g. Determine its density in kgm^{-3}.
   A. 0.56 X 10^{-3} Kgm^{-3} B. 1.80 x 10^{-3} Kgm^{-3} C. 5.66 x 10^{-3} Kgm^{-3} D. 1.80 x 10^{-4} Kgm^{-3}

5. The relative density of a substance has no units because it is
   A. The ratio of mass to volume.   B. A ratio of densities.
   C. Always compared to the density of water.   D. A ratio of mass to density.

6. The fundamental units which combine to give the unit of force are
   A. Kilogramme, second and ampere   B. Metre, ampere and second
   C. Kilogramme, metre and second   D. Metre, kelvin and second

7. Which of the following quantities is not a vector quantity?

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    A. Force   B. Mass   C. Velocity   D. Weight

8. Which of the following actions must be taken first when there is electrical fault in a home?

    A. Calling the fire service   B. Switching off the electrical mains

C. Calling the electrical engineer   D. Vacating the building

9. The main function of a thermostat in a refrigerator is to

    A. Cool the inner part of the refrigerator   B. Regulate the inner temperature of the refrigerator

C. Cut off the fuse when excess current flows   D. Cause the evaporation of water

10. The purpose of earthling in an electric circuit is to …..

    A. Regulate the voltage   B. Protect the appliances

    C. Protect the human being

D. Stabilize the current

11. The following materials are conductors of electricity except

    A. Blood   B. Copper   C. Mica   D. Water

12. Which of the following measures are taken to conserve energy?

    I.   Switching off electrical appliances when not in use

    II.   Closing all windows and doors when using an air conditioner

    III.   Ironing clothes in bulk

    IV.   Allowing hot food to cool before putting it in the refrigerator

    A. I and II only   B. III and IV only   C. I, II and III only

          D. I, II, III and IV

13. Three resistors have values of 2Ω, 4Ω and 5Ω. Determine their effective resistance when they are connected in parallel to each other

    A. $\frac{1}{40}\Omega$ B. $\frac{20}{19}\Omega$ C. 11Ω   D. 40Ω

14. The image formed by a plane mirror is

    A. magnified.   B. Real.   C. Laterally inverted

        D. Diminished

15. Which of the following colours is a primary colour?

    A. Cyan   B. Green   C. Purple   D. Violet

16. Rainbow formation is a practical illustration of light phenomenon known as

    A. Dispersion.   B. Interference   C. Mirage.

       D. Reflection.

17. The part of the eyes on which images are formed is called

    A. Aqueous humour   B. Pupil   C. Lens

    D. Retina

18. Thunder and lighting occur at the same time but lightening is seen before sound is heard because

    A. Sound is a longitudinal wave   B. Sound needs a material medium for its propagation

C. Light is a transverse wave D. Light travels faster

19. A boy stands 2m in front of a plane mirror. What is the distance between him and his image?

    A. 0.2m   B. 0.4m   C. 2.0m   D. 4.0m

20. The binomial system of Nomenclature was developed by

    A. Aristotle   B. Linnaeus   C. Mendel

    D. Watson

21. Bacteria are regarded as prokaryotae because they

    A. Have cell walls made up of cellulose   B. Are unicellular organisms

C. Do not have membrane-bound organelles D. Reproduce by producing gametes

22. Biodiversity is defined as

    A. Study of living things   B. Variation in forms of life

C. Classification of living things   D. Living and non-living things in habitats

23. Interbreeding organisms are members of the same

    A. Class   B. Genus   C. Order   D. Phylum

24. Viruses can only multiply when they are present in

    A. Culture solution B. Living organism C. Dead matter

    D. Sugary medium

25. Which of the following organism is regarded as both living and non-living?

    A. Amoeba   B. Bacteria   C. Spirogyra

    D. Virus

26. A tissue is made up of cells which

    A. Perform different functions.   B. Have different structures

C. Have similar structures and functions   D. Look alike in shape

27. The organelle responsible for respiration is

    A. Endoplasmic recticulum   B. Mitochondrion   C. Plasma membrane Ribosome

28. The part of the plant that contains the mitochondria is the

    A. Cell wall   B. Cell membrane   C. Cytoplasm

        D. Nucleus

29. One advantage of mulching is that it

    A. May be a source of new weeds species   B. Acidifies the soil.

C. Improves soil texture   D. Increases soil temperature

30. Which of the following minerals is not needed by crops in large quantities?

    A. Potassium   B. Iron   C. Nitrogen

    D. Phosphorus

31. Which of the following practices improves aeration of the soil?

    A. Mulching   B. Shading.   C. Staking.   D. Stirring.

32. A soil is considered fertile when it

    A. Contains a lot of living organisms   B. Is highly aerated

C. Has high water retention ability   D. Can support adequate crop yield

33. The most effective method of reducing erosion on hilly lands is by

    A. Terracing   B. Applying organic manure   C. Creating wind breaks

    D. Erection of barriers.

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34. A difference between an atom and an ion is that an atom

    A. Is electrically charged whilst anion is neutral

    B. Has protons whilst an ion has no protons

    C. Can move about in solution whilst an ions cannot move in solution

    D. Cannot conduct electrically whilst an ion conducts electrically

35. The arrangement of electrons in the shells of an aluminium atom could be represented as

    A. 2, 4, 6   B. 2, 5, 6   C. 2, 8, 2   D. 2, 8, 3

36. The stain of oil paint in a cloth can best be removed by applying

    A. Warm water   B. Kerosene   C. Salt solution

    D. Soap solution

37. Ionic compounds have high melting points because they

    A. Have strong bonds   B. Consist of molecules   C. Do not conduct electricity

D. Are soluble in organic solvents

38. An atom has 16 protons and 12 neutrons in its nucleus. The number of electrons in the atom is

    A. 4   B. 12   C. 16   D. 28

39. Which of the following pairs can combine to form an ionic compound?

    A. C and O   B. Al and Mg   C. H and S

    D. Cu and O

40. Isotopes of a particular element have the same

    A. Atomic number.   B. Atomic mass   C. Mass number

    C. Number of electrons

APPENDIX F

TEST IN CORE-MATHEMATICS

OBJECTIVE TEST

Answer all questions in this section by selecting the correct option from the options lettered A-D

DURATION: 60 MINUTES

1. Express, correct to three significant figures, 0.003597.

   A. 0.00359   B. 0.00360   C. 0.004   D. 0.359

2. Which of the following is not a rational number?

   A. -5   B. $\sqrt{4}$ C. $3\frac{3}{4}$ D. $\sqrt{90}$

3. Arrange the following in ascending order of magnitude; 0.45, $\frac{3}{4}$, and 25%

   A. $\frac{3}{4}$, 0.45, 25%   B. $\frac{3}{4}$, 25%, 0.45

   C. .45, 25%,   D. 25%, 0.45, $\frac{3}{4}$

4. Simplify $3\frac{1}{2} - 1\frac{1}{3} \times 2\frac{5}{8}$

   A. 0   B. $\frac{1}{2}$ C. 1   D. 2

5. The inequality for a distance d which is more than 18m and not more than 23m is

   A. $18 \le d \le 23$ B. $18 < d \le 23$ C. $18 \le d < 23$ D. $18 < d < 23$

6. Multiply 3.6×10^2 by 9.5×10^{-4} and leave the answer in standard form.

   A. 3.42×10^3 B. 3.42×10^2 C. 3.42×10^{-1} D. 3.42×10^{-2}

7. Express 196650 to the nearest thousand.

   A. 196000   B. 196700   C. 197000   D. 200000

8. Evaluate $(3.09)^2$ to one decimal place.

   A. 9.0   B. 9.5   C. 9.6   D. 10.0

9. Simplify: $\frac{m^2 - n^2}{n - m}$

   A. m + n   B. –m – n   C. –m + n   D. M – n

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10. Factorize completely: 6ax – 12by – 9ay + 8bx

    A. (2a-3b)(4x + 3y)   B. (3a + 4b)(2x-3y)   C. (3a-4b)(2x+3y)

    D. (2a+3b)(4x-3y)

11. Simplify $\frac{2}{1-x} - \frac{1}{x}$

    A. $\frac{x+1}{x(1-x)}$ B. $\frac{3x-1}{x(1-x)}$ C. $\frac{3x+1}{x\,(1-x)}$ D. $\frac{x-1}{x(1-x)}$

12. Find the values of x for which $y = \frac{x+3}{x^2-4}$ is not defined.

    A. X = -2, 2   B. X = -3, 2   C. X = -4, 3   D. X = -3, 4

13. Halima is n years old. Her brother's age is 5years more than half of her age. How old is her brother?

    A. $\frac{n}{2} + \frac{5}{2}$ B. $\frac{n}{2} - 5$ C. $5 - \frac{n}{2}$ D. $\frac{n}{2} + 5$

14. Express 236 as a base 8 numeral.

    A. 352_{eight} B. 354_{eight} C. 453_{eight} D. 540_{eight}

15. If $M_{five} = 123_{five}$, find the value of M.

    A. 53   B. 55   C. 62   D. 102

16. Subtract 123_3 from 1001_3.

    A. 112_3 B. 102_3 C. 12_3 D. 122_3

17. Express 112_{seven} as a number in base four.

    A. 322   B. 321   C. 232   D. 223

18. If $23_x = 32_5$, find the value of x.

    A. 7   B. 6   C. 5   D. 4

19. If y = kx-1 and y = 3 when x = 2, find the value of y when x= -2.

    A. 5   B. 3   C. -3   D. -5

20. If x = 2, y = -3, and z = -4, evaluate (y-x)(x-z)(z-y).

    A. 210   B. 30   C. -30   D. -210

21. Given that x = -2 and y = 3, evaluate $x^3+5x^2y-y^3$

    A. 13   B. 25   C. 41   D. 79

22. If $\frac{1}{R} = \frac{1}{6} + \frac{1}{9}$, find the value of R.

    A. 0.278   B. 1.800   C. 3.600   D. 7.500

23. If m: n = 2: 1, evaluate: $\frac{3m^2-2n^2}{m^2-mn}$

    A. $\frac{3}{5}$ B. $\frac{3}{4}$ C. $\frac{5}{3}$ D. $\frac{4}{3}$

24. Given that a = 3 and b = $\frac{5}{3}$, *find the value of* $y = 3a^2b - 9ab^2$.

    A. 30   B. 25   C. -17   D. -30

25. Find the values of x for which $\frac{1+x}{4-x^2}$ *is not defined*.

    A. 2, -1   B. 2, -2   C. 0, -1   D. 0, -2

The following mapping shows a mapping x   y →

0	3	6	9	12	15
↓	↓	↓	↓	↓	↓
-1	5	11	17	23	29

Use it to answer questions 26 and 27

26. What is the rule for the mapping?

    A. y = x + 6   B. y = 2x + 1   C. y = 2x – 1

    D. y = x – 6

27. Find y, when x = 4.

    A. y = 6   B. y = 7   C. y = 9   D. y = 10

28. A function f, is defined by f : x → 3x + 1, on the set {-2, -1, 0, 1}.

    What member of the set satisfies f(x) = -2?

    A. -2   B. -1   C. 0   D. 1

29. Solve the simultaneous equations: y – x = 1 and 2y + 3x = 7.

    A. X =2 , y = 1   B. X = 1, y =2   C. X = 2, y = 3

    D. X = 3, y = 2

30. If x-y = 1 and 5x – 2y = -1, find the value of x + y.

    A. 8   B. 6   C. 4   D. 2

31. Given that x-y = 1 and x +y = 5, evaluate xy^2

    A. 12   B. 14   C. 41   D. 144

32. Two apples and a coconut cost GHc 3,100. An apple and two coconuts

    cost Ghc 2,600.00. What is the cost of a coconut?

    A. Ghc 520.00   B. Ghc 700.00   C. Ghc 1,140.00

    D. Ghc 1,200.00

33. If a: b =3: 2, find **ab** when a =9.

    A. 18   B. 36   C. 45   D. 54

34. Two buses start from the same station at 9:00am and travel in opposite directions along the same straight road. The first bus travels at a speed of 72km/h and the second at 48 km/h. At what time will they be 240km apart?

   A. 10:00 a.m   B. 11:00 a.m   C. 12:00 noon

         D. 1:00 p.m

35. Convert 12 ms^{-1} to km per hour.

   A. 24.0   B. 30.0   C. 43.2   D. 54.8

36. Simplify $\frac{1}{27}$ x $3^{-y} = 81^{2y}$

   A. $-\frac{2}{9}$ $B. -\frac{1}{3}$ $C. \frac{1}{3}$ $D. \frac{2}{9}$

37. If $(0.25)^x = 32$. Find the value of x.

   A. $\frac{5}{2}$ $B. \frac{3}{2}$ $C. -\frac{3}{2}$ $D. -\frac{5}{2}$

38. Evaluate $2^0 + 2^{-1} + 2^{-2}$

   A. $\frac{1}{8}$ $B. \frac{3}{4}$ $C. 1\frac{1}{8}$ $D. 1\frac{3}{4}$

39. Solve the equation $2^{2x-5} = 8^0$

   A. 2.5   B. 3.0   C. 4.0   D. 6.5

40. If the simple interest on GHc 2,000 after 9 months is Ghc 60.00, at what rate per annum was the interest charged?

   A. 2.25%   B. 4.00%   C. 5.00%

         D. 6.25%

APPENDIX G

TEST IN SOCIAL STUDIES

OBJECTIVE TEST

Answer all questions in this section by selecting the correct option from the options lettered A-D

DURATION: 50 MINUTES

1. The basic level of Abraham Maslow's Theory of Needs is

    A. Physiological   B. Safety   C. Self-actualization

    D. Social

2. The personality of an individual involves his or her

    A. Appearance and wealth.   B. Height and beauty.

    C. Status in society   D. Total behaviour

3. An underground miner, having secured the basic needs may put pressure on his/her employer to provide

    A. Esteem needs   B. Physiological needs   C. Safety needs

    D. Social needs

4. People who pretend to be what they are not are usually described as

    A. Being honest   B. Being disrespectful   C. Having inferiority complex   D. Lacking education and training.

5. Which of the following factors is the most effective way of helping the individual to develop his or her capabilities?

    A. Education and training   B. Financial assistance

    C. Guidance and counselling   D. Personal foresight

6. A positive view of an individual's capabilities is his/her

    A. Aspiration   B. Self-concept   C. Self-confidence

    D. Status

7. The following options are conditions that false identity can create except

    A. Hatred and mistrust   B. Rejection of such people

    C. Social vices   D. Urbanization.

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8. The development of one's self begins with

   A. Acquisition of wealth   B. Having formal education

       C. Identifying one's potentials

   B. Making numerous friends.

9. Which of the following diseases is sexually transmitted?

   A. Ebola   B. Buruli ulcer   C. Meningitis

      D. Syphilis

10. Which of the following statements is accurate about practicing chastity as an adolescent?

   A. Absence of risks related to sexual activities

   B. Becoming sexually inexperienced in marital life

   C. Keeping your sexuality confidential from everybody

   D. Preserving one's energy for work.

11. Responsible behaviour of adolescents often

   A. Leads to early marriage   B. Leads to teenage marriage

C. Encourages chastity before marriage   D. Results in human right protection in the society

12. An identifiable social characteristics of the adolescent is the

   A. Ability to think about the future

   B. Concern for physical changes in the body

   C. Desire to be self-dependent

   D. Desire to gain popularity among members

13. Most HIV/AIDS patients do not come out for treatment because

   A. The society stigmatizes them   B. There are no hospitals to treat them

C. They believe it is a spiritual disease   D. Treatment is very expensive

14. The state of complete physical, mental and social well-being with regards to the reproductive system is

   A. Adolescent chastity   B. Adolescent morality

      C. Reproductive health   D. Reproductive rights.

15. Which of the following factors does not contribute to the increase in adolescent pregnancy?

   A. Broken homes   B. Lust for material possession   C. Poverty

      D. Sex education

16. Which of the following is not a symbol of national identify in Ghana?

    A. National Anthem   B. Flag of Ghana   C. Coat of Arms

        of Ghana   D. Adinkra patterns

17. National symbols play the following significant roles except

    A. Fostering national integration   B. Portraying our taboos

C. Reflecting the wisdom of the people   D. Serving as a means of

communication.

18. To promote national identity, it is important to

    A. Ensure high standard of living   B. Maintain a strong

        cultural heritage

C. Provide avenues for social mobility   C. Protect the young

generation

19. A Ghanaian cultural practice which usually brings most ethnic groups

    together is

    A. Festival   B. Naming ceremony   C. Funeral

        D. Puberty rites

20. Which of the following cherished traditional practices in Ghana today,

    tends to breed disunity?

    A. Chieftaincy   B. Funerals   C. Marriage

        D. Puberty rites

21. The judicial function of the chief is to

    A. Defend his people   B. Maintain law and order   C. Preside

        over all matters

D. Settle disputes among the people

22. A show of superiority of one ethnic group over the other is dangerous

    because it

    A. Brings about religious intolerance   B. Creates chieftaincy

        disputes

C. Influence indiscipline in the media   D. Threatens peace and national

cohesion

23. The most important means of resolving conflicts in traditional society

    is through

    A. Agitation   B. Resolution   C. Arbitration

        D. Revolution

24. When people are forced to leave their country as a result of conflict, they become

    A. Detainees   B. Dissidents   C. Mercenaries

        D. Refugees

25. Peace building in the Ghanaian society can be best promoted through

    A. Demonstrations   B. The imposition of curfew

        C. The use of the army

D. Tolerance

26. In an attempt to build and maintain peace, it is important that the parties at conflict should

    A. Demonstrate tolerance   B. Expose the mistakes of each other

C. Insist on their rights   D. Solicit the services of a good lawyer.

27. Anything that is available to society and is used for the production of goods and services to satisfy societal needs is …

    A. Capital   B. Goods   C. Materials

        D. Resource

28. Money, tools and equipment used to provide services are called

    A. Capital   B. Fixed assets   C. Incentives

        D. Utilities

29. Which of the following cannot be classified as natural?

    A. Forest   B. Mineral ore   C. Machines D. Rivers

30. The natural resources of a country can benefit its people only when they are

    A. Given necessary publicity   B. Kept for future generation

        C. Properly exploited   D. Renewable

31. Ghana has not been able to exploit her natural resources fully due to

    A. Excessive bureaucracy   B. High rate of inflation

C. High rate of population growth   D. Lack of technical know-how

32. Socialization helps the individual to

    A. Become a responsible citizen   B. Obtain better education

C. Obtain white-collar job   D. Select a good partner

33. The agency that is responsible for the primary socialization of the child is the

    A. Extended family   B. Matrilineal family   C. Nuclear family   D. Patrilineal family

34. The abuse of drugs is considered as

    A. Group interest   B. Social behaviour   C. Deviant behaviour
D. Personal misapplication

35. The school system undermines the socialization process in Ghana because it places more emphasis on

    A. Attitude training   B. Book knowledge   C. Character training   D. Skill development

36. One major reason for which people go into marriage is to

    A. Bear and nurture children   B. Be free from work   C. Gain employment   D. Secure traditional inheritance

37. Courtship is a period when

    A. Customary rites are performed   B. The couple has to go through a court process
C. The couple obtains clearance from the church   D. The would-be couple studies each other

38. Couples who want to sustain their marriages should always

    A. Avoid pointing out the mistakes of each other   B. Hide their past lifestyles from each other
C. Maintain constant communication with each other
D. Report each other's behaviour to his or her parents

39. Which of the following types of marriage is the foundation of all other marriages in Ghana?

    A. Concubines contracts   B. Marriage by ordinance   C. Customary marriage   D. Religious marriage

40. A key factor to choosing factor to consider in choosing a potential spouse is the

    A. Educational level of the person   B. Financial status of the person
C. Compatibility of the person   D. Physical appearance of the person

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