

UNIVERSITY OF CAPE COAST

INFLUENCE OF ACADEMIC SELF-EFFICACY ON ACADEMIC  
PERFORMANCE OF STUDENTS IN THE PUBLIC SENIOR HIGH SCHOOLS

IN SEKONDI – TAKORADI



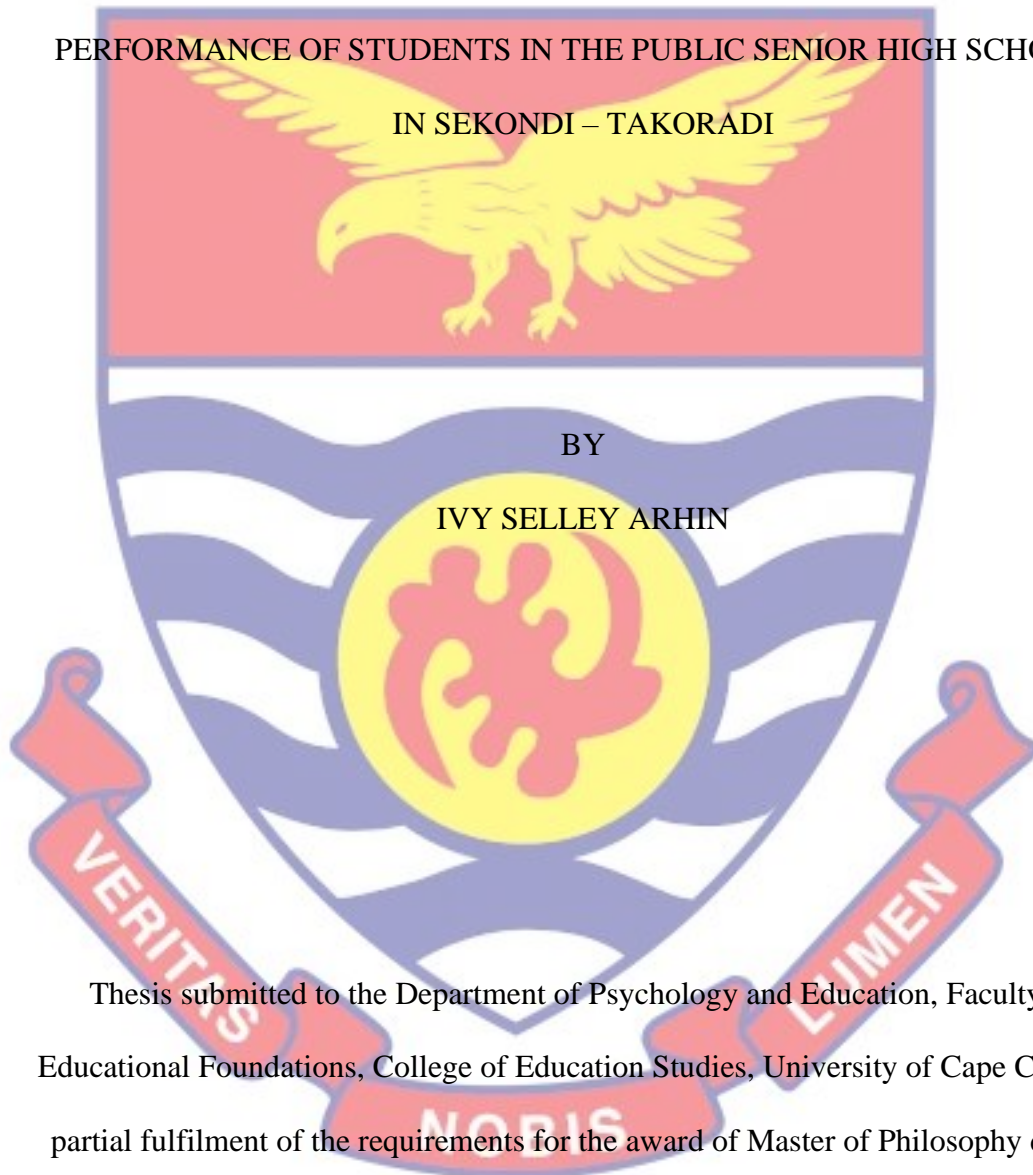
IVY SELLEY ARHIN

2021



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IN SEKONDI – TAKORADI



BY

IVY SELLEY ARHIN

This thesis submitted to the Department of Psychology and Education, 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.

AUGUST 2021

## 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:.....

### Supervisors' Declaration

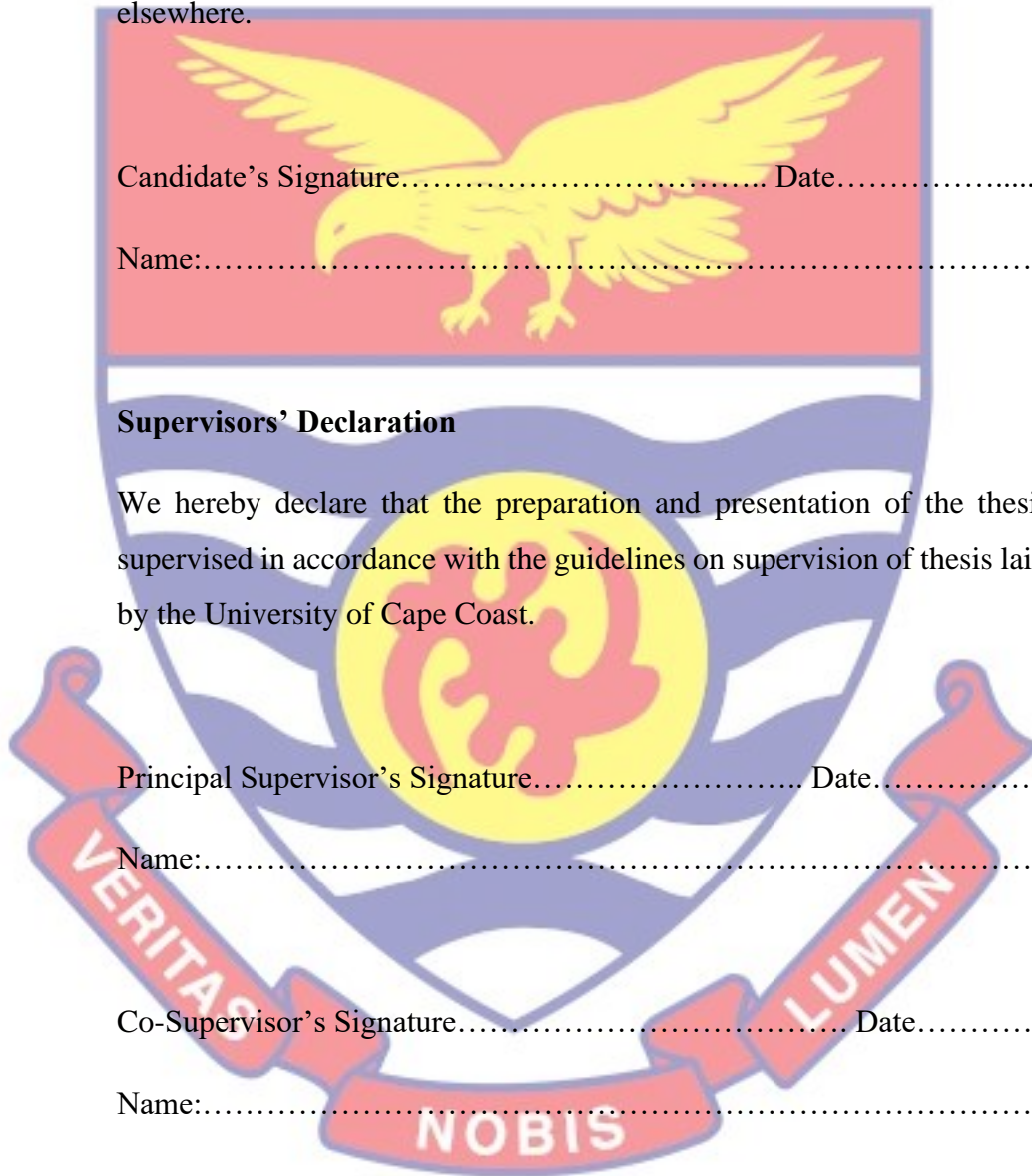
We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature..... Date.....

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Co-Supervisor's Signature..... Date.....

Name:.....





## ABSTRACT

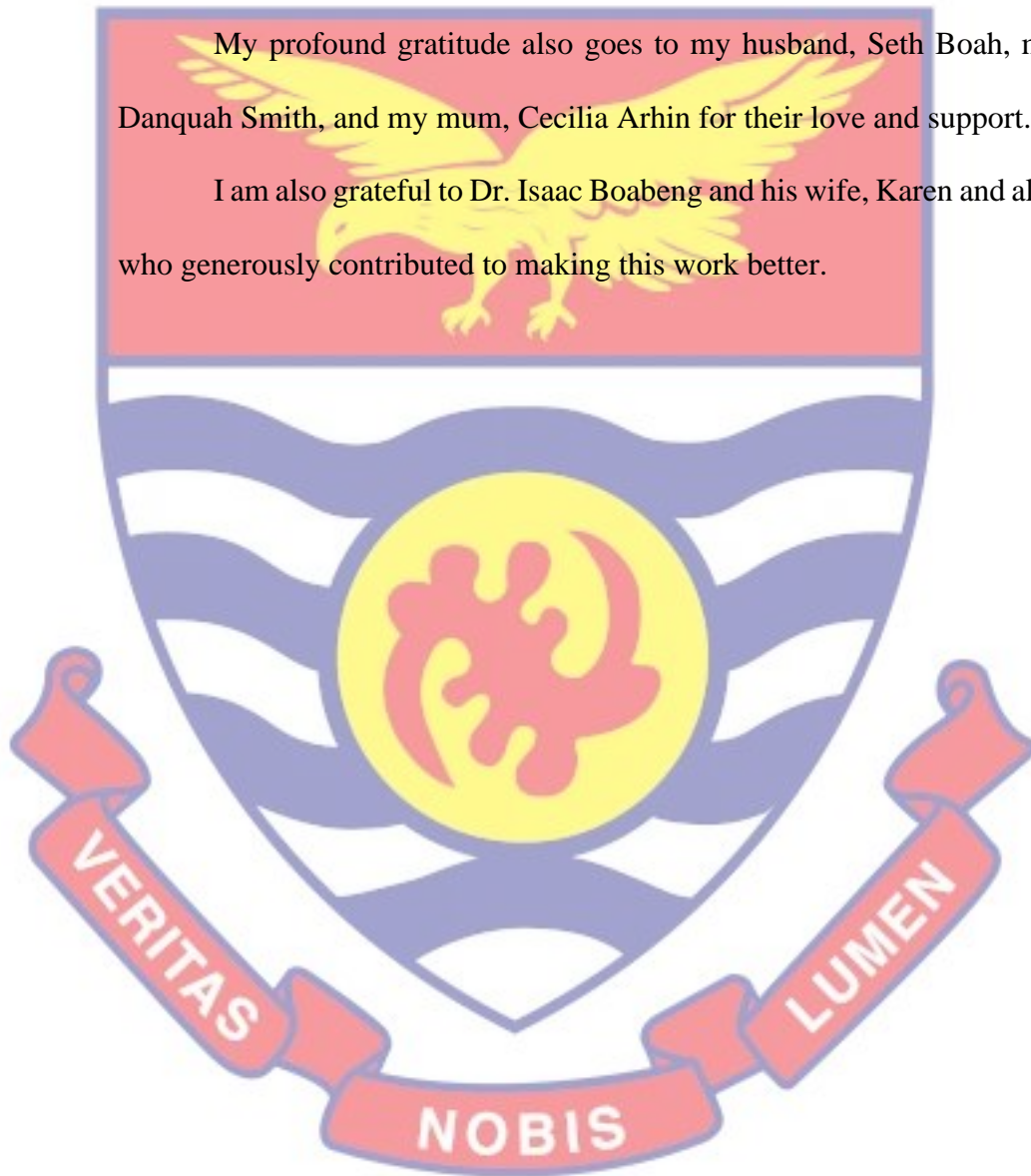
The study sought to investigate the influence of academic self-efficacy on students' academic performance of the Senior High Schools within the Sekondi-Takoradi Municipality. The study was guided by two research questions and two hypotheses. The descriptive research design was employed and the multistage sampling technique was used to sample 350 students. Academic Self-Efficacy questionnaire with 60 constructed objective test questions of the SHS core subjects; Mathematics, Science, English and Social Studies were used to elicit responses from the participants. The descriptive statistics (frequencies, percentages, means and standard deviations) and inferential statistics (Pearson moment correlation and independent samples t-test) were the tools used in analysing the data. The study revealed that most students have high level of academic self-efficacy. It was revealed that, a positive relationship exists between academic self-efficacy and student test achievement. Also, it was found that there was no statistical difference between the means of females and males with respect to their academic self-efficacy. It was therefore recommended among other things that, developmental personality, academic and gender educational-related programmes should be intermittently organized by the schools through the counselling coordinators in the Sekondi-Takoradi metropolis

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DEDICATION

To my dad, Danquah Smith



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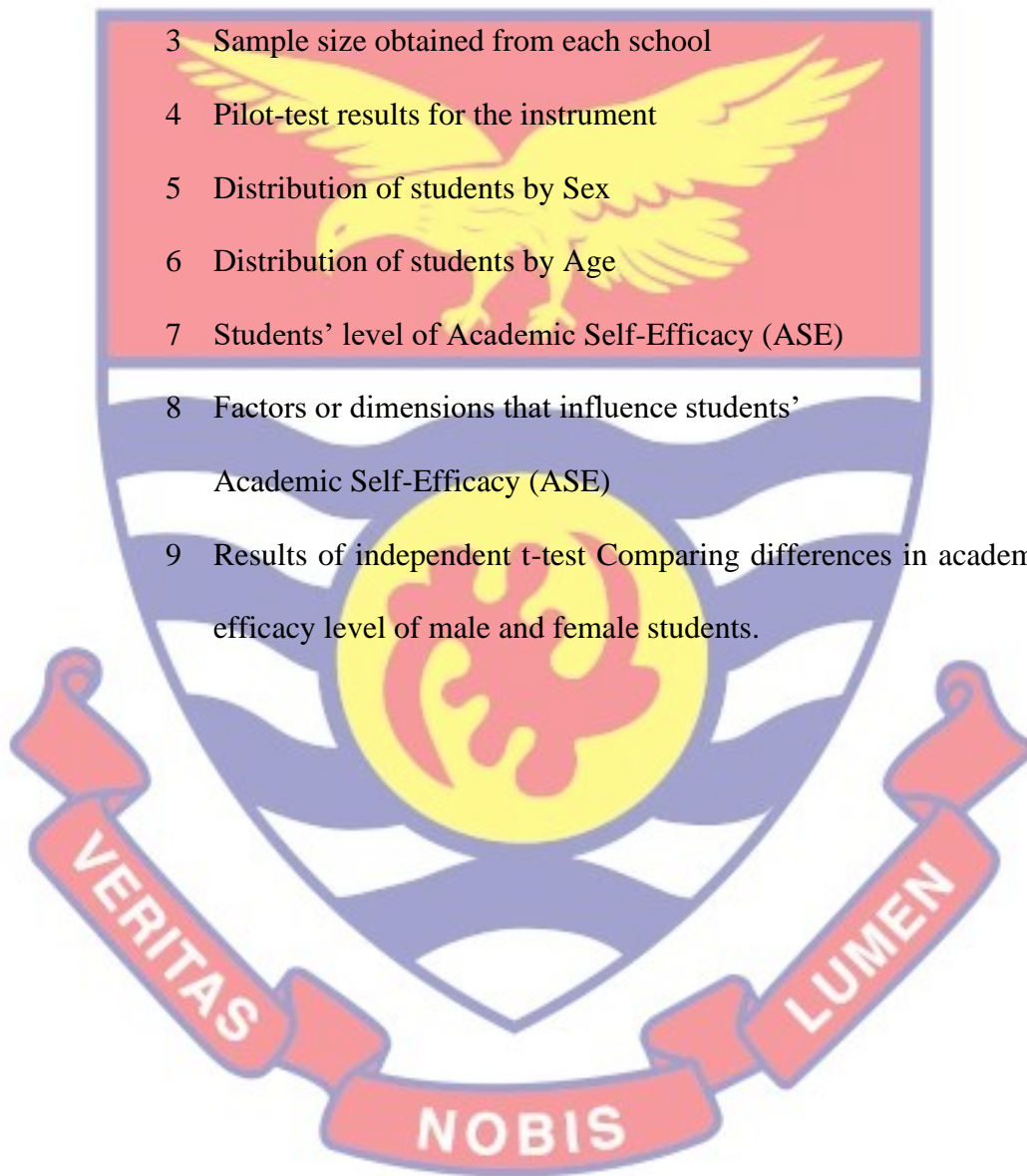
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## CHAPTER ONE

### INTRODUCTION

#### Background to the Study

Education is seen as the creation of the individual's endowed power, which enables the person to manage his environment and effectively fulfil his or her opportunities (Saxton, 2000). Academic performance of students is thus a key element of education (Rono, 2013). Academic performance is the nucleus around which the entire educational system revolves. It is a determining factor for success and failure of every academic institution (Narad & Abdullah, 2016). Farooq, Chaudhry, Shafiq, and Behanu (2011) also reported that student academics are the basis for acquiring and building knowledge. In addition, Farooq et al., (2011), stressed that academic performance of students is the highest priority for all educators. According to Narad and Abdullah (2016), academic performance is based on knowledge gained which are calculated by the teacher's mark as well as education goals set by both students and teachers for within a certain period of time.

Factors contributing to improvement in students' academic performance have received much attention from educators and researchers (Ali, Haider, Munir, Khan & Ahmed, 2013; Farooq, Chaudhry, Shafiq & Behanu, 2011). Ali et al. (2013), found daily study hours, social economic status of parents/guardians and age as factors that significantly affects academic performance. Similarly, the economic status of the parents, academic experience and motivation as factors that influence academic performance have also been established by Narad and Addullah (2016) and Farooq et al. (2011). Proper guidance, expertise in communication and training facilities from

parents and teachers were also found to be important factors for academic performance (Singh, Malik & Singh, 2016).

Educators have, however, long recognized the importance of student's interest in their academic performance and their effort to achieve them. Thus, aside from all these factors that account for academic performance, researchers have related found that academic performance can also be predicted by the self-efficacy of the students. Self-efficacy knowledge is a key motivational element in the act of academic performance (Bandura, 1986). Students with a high degree of self-efficacy will participate in activities with competence. As such, students become more involved in activities in the school and will quickly recover from reverse setbacks. Self-efficacy motivates students to learn to make choices in setting goals through their self-regulatory processes. A qualification in higher education means you have the skills to compete in the changing and competitive world of work.

As an indicator of educational performance, academic self-efficacy receives increasing attention (Sharma & Nasa, 2014). Pajares (2002) pointed out that self-efficacy in education is a crucial factor in the success of learners, because self-efficacy affects learners' choices and course of action. Bandura (1997) described self-efficacy as "the belief in one's capabilities to organize and execute courses of action required to produce given attainments" (p. 88). Bandura (1986) has related self-efficacy to persistence, tenacity, and achievement in educational settings. Huang (2011) also claimed that self-efficacy is a framework which has been designed to differentiate confidence in one's ability to achieve objectives successfully. Conventions about self-efficacy should be important in understanding education outcomes, as self-efficacy can

lead to certain conduct and motivation to encourage or discourage efficient performance (Sharma & Nasa, 2014).

Self-efficacy (SE) has consistently demonstrated a positive correlation with academic performance in a comprehensive availability of meta-analytical studies of small to large effect sizes (Honicke and Broadbent, 2016; Richardson et al., 2012; Allen & Robbins, 2010). Good performance is likely to be achieved in students who have a high level of confidence in their ability to achieve academic results. Students with high self-efficacy are more likely to set higher goals and be more interested in their studies (Bandura, 1997). Since previous studies suggest that students' academic performance can be predicted by their self-efficacy levels, this means that students' academic self-efficacy levels play an important role in their academic life. Studies bordering on academic self-efficacy levels have shown that students can have low, moderate, or high academic self-efficacy. For example, Sachitra and Bandara (2017) found low levels of academic self-efficacy among students. Witt-Rose (2003) also found in his study that students have a medium to high degree of self-efficacy. The different levels of academic self-efficacy may account differences in the academic performance of students. In terms of gender, studies have produced conflicting results in the academic self-efficacy levels of males and females. Sachitra and Bandara (2017) found that females displayed a high academic self-efficacy as compared to males. However, Ersanli (2015) found that there was no significant difference in academic self-efficacy in relation to gender of the participants. Males were also found to have a high academic self-efficacy as compared to their female counterparts in a study conducted by Astatke (2017). Thus, it is in this light that this study sought to investigate the influence of



academic self-efficacy on students' academic performance of the Senior High Schools within the Sekondi-Takoradi Municipality and also address some of the inconsistencies produced in research concerning academic self-efficacy levels and gender.

### Statement of the Problem

“Academic self-efficacy refers to the belief of a person (convinced) that a designated level of study or academia can be achieved or reached successfully (Bandura, 1997; Eccles & Wigfield, 2002). Throughout their research Linenbrink and Pintrich (2002) find that academic self-efficacy is strongly linked to thinking, cognitive involvement, critical activity, intellectual motivation, use of tactics, resilience, and the capacity to be sensitive to negative emotions. Academic self-efficacy describes “trust in the ability of a person to organize, execute and regulate performance in order to achieve certain types of performance” (Sharma & Nasa, 2014). It works at a multifaceted level, affecting people's feelings, thought, inspiration and action across different educational activities (Sharma & Nasa, 2014). The levels of academic self-efficacy has been found to vary across different populations of students. For instance, Sachitra and Bandara (2017) found low levels of academic self- efficacy among students. On the other hand, Witt-Rose (2003) found that students have a moderate to high level of self- efficacy in his study. Self-efficacy (SE) has also been found to consistently demonstrated a positive correlation with academic performance in a comprehensive availability of meta-analytical studies of small to large effect sizes (Honicke and Broadbent, 2016; Richardson et al., 2012; Allen & Robbins, 2010). This study is thus to address some of these inconsistencies produced in research. Moreover, studies on academic self-efficacy and



academic performance has also yielded contradictory results. Ahmed, Qazi and Jabeen (2011) found in their study that there was a weak positive relationship between academic self-efficacy and perceived academic performance of students. In contrast, Nasir and Iqbal (2019) found significant strong association between self-efficacy and students' academic performance. These previous studies have been conducted among university students and pre service teacher training programmes respectively. Therefore, in addition to addressing the contradiction produced, the present study is conducted in populations involving senior high schools in Ghana. In relation to gender, it is not clearly stated as to whether, males have more academic self-efficacy more than females or vice versa. Sachitra and Bandara (2017) found that females displayed a high academic self-efficacy as compared to males. However, Ersanli (2015) found that there was no significant difference in academic self-efficacy in relation to gender of the participants. Males were also found to have a high academic self-efficacy as compared to their female counterparts in a study conducted by Astatke (2017). These findings reveals that more research is needed in order to understand the differences in gender in relation academic self-efficacy. This study, therefore, intends to add to the existing literature in order to broaden the understanding of academic self-efficacy in relation to gender. Astatke, M. (2017). Gender, Academic Self-Efficacy, and Goal Orientation as Predictors of Academic Achievement.

### **Purpose of the Study**

The main purpose of this study was to assess the influence of academic self-efficacy on academic performance of students in the public Senior High Schools in Sekondi - Takoradi. Specifically, the study examined:

1. students' level of academic self-efficacy.
2. factors that influence students' academic self-efficacy.
3. relationship existing between academic self-efficacy and academic performance.
4. difference existing in students' academic self-efficacy level on the basis of gender.

### Research Questions

The following research questions were formulated to guide the study:

1. What is the level of academic self-efficacy of senior high school students in Sekondi Takoradi Municipality?
2. What are the factors that influence students' academic self-efficacy in the Sekondi Takoradi Municipality?

### Research Hypotheses

1.  $H_0$ : There is no statistically significant relationship between self-efficacy and academic performance.  
 $H_1$ : There is a statistically significant relationship between self-efficacy and academic performance.
2.  $H_0$ : There is no statistically significant difference in student's self-efficacy level on the basis of gender.  
 $H_1$ : There is a statistically significant difference in students' self-efficacy level on the basis of gender.

### Significance of the Study

Examining the influence of self-efficacy on academic achievement of students has practical significance for teachers, parents or guardians, and school administrators. The results of this study would be useful to the whole education

community of the Sekondi-Takoradi Municipality and could be used to promote and reinforce the important role that self-efficacy is playing in the senior high school students' achievement.

It is hoped that educational stakeholders would consider and incorporate the training of teachers to promote and enhance their students' self-efficacy in order to improve their achievement.

The study will also add to existing literature and extending the frontiers of knowledge in the influence of academic self-efficacy on achievement of students.”

#### **Delimitation**

“This study could have been carried out across the entire nation; however; it was restricted to senior high school students in Sekondi-Takoradi Metropolitan area. Again, a lot of factors may influence students' academic performance, notwithstanding, the study was confined to only the influence of academic self-efficacy of students' academic performance.

#### **Limitation**

Since the study is a case study of the metropolitan area of Sekondi-Takoradi, not all the high schools in the country were involved in the study. Besides, since the experiences and perspectives of the research participants in the metropolis differed from the rest, the results could not be generalised beyond the study area. In addition, the population from which the sample was drawn was limited as it excluded some cluster of schools in the metropolis.

#### **Definition of Terms**

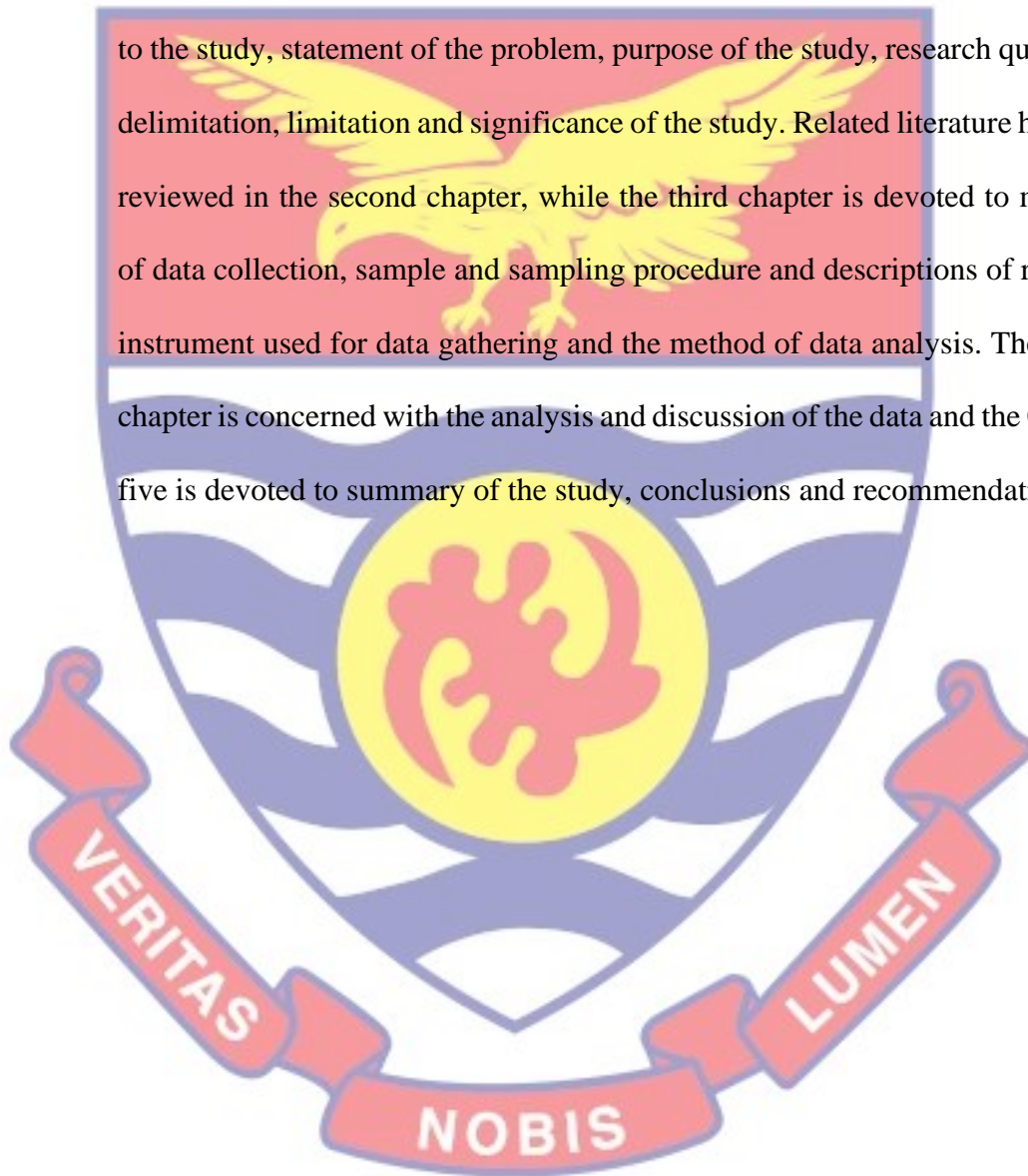
*Academic Self-efficacy (ASE/SE):* SE is defined as learner judgments about their ability to successfully achieve educational goals.



*Student Performance:* It is the extent to which a student has attained their short or long-term educational goals.

### **Organisation of the Study**

The research was organised into five chapters, with each chapter dealing with an aspect of the study. The first chapter dealt with the background to the study, statement of the problem, purpose of the study, research questions, delimitation, limitation and significance of the study. Related literature has been reviewed in the second chapter, while the third chapter is devoted to methods of data collection, sample and sampling procedure and descriptions of research instrument used for data gathering and the method of data analysis. The fourth chapter is concerned with the analysis and discussion of the data and the Chapter five is devoted to summary of the study, conclusions and recommendation





## CHAPTER TWO

### LITERATURE REVIEW

#### Overview

This chapter focuses on the review of literature pertaining to the topic under study. The chapter incorporates the theoretical framework, conceptual review and empirical issues. The study was underpinned by the Social Cognitive theory of Self-Efficacy (Bandura, 1997). Maslow's Hierarchy of Needs (Maslow, 1943) was also reviewed under the theoretical framework. However, the conceptual issue centered on student academic self-efficacy. Also, the following would be discussed in the empirical review:

- Students' academic performance
- Students' level of academic self-efficacy.
- Relationship between academic self-efficacy and academic performance.
- Differences existing in students' academic self-efficacy level on the basis of gender.

#### Theoretical Framework

##### Social cognitive of self-efficacy

“Bandura's social-cognitive theory stands in stark contrast to theories of human functioning, which overemphasize the role that environmental factors play in the development of human behaviour and learning. Behaviourist theories, for example, show little interest in self-processing because theorists assume that human functioning is caused by external stimuli. Because internal processes are viewed as transmissive rather than cause of behaviour, they are dismissed as a redundant factor in the cause-and-effect process of behaviour and

not worthy of psychological investigation. For Bandura, a psychology without introspection cannot strive to explain the complexities of human functioning. By looking into their own consciousness, people understand their own psychological processes. For Bandura (1997), a theory that denies that thoughts can regulate actions does not easily explain complex human behaviour (p. 10).

Similarly, social-cognitive theory differs from theories of human functioning, which overemphasize the influence of biological factors on human development and adaptation. While acknowledging the influence of evolutionary factors on human adaptation and change, it rejects the type of evolutionism that views social behaviour as a product of evolutionary biology but fails to consider the impact on biological evolution of social and technological innovations that create new environmental selection pressures for adaptability have (Bussey & Bandura, 1999). Instead, the theory advocates a bidirectional impact, in which evolutionary pressures alter human development in such a way that individuals are able to create increasingly complex environmental innovations, which in turn create new selective pressures for the evolution of specialized biological systems for functional consciousness, thought, language, and symbolic communication.

“According to Bandura’s (1997) social cognitive theory, individuals possess a self-system enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions. This self-system provides reference mechanisms and a set of sub functions for perceiving, regulating, and evaluating behaviour, which results from the interplay between the system and environmental sources of influence. As such, it serves a self-regulatory function by providing individuals with the capability to influence their own cognitive

processes and actions and thus alter their environments. How people interpret the results of their own performance attainments informs and alters their environments and their self-beliefs inform and alter subsequent performance. This is the foundation of Bandura's (1986), conception of Triadic Reciprocity (also known as triadic reciprocity and triadic reciprocal determinism), the view that personal factors in the form of cognition, affect, and biological events, behaviour, and environmental influences create interactions that result in a triadic reciprocity. That is, not only do these factors make up personality but they all influence each other. An individual ends up the way they are by the interaction of themselves and the environment. Our behaviour influences the environment and it in turn influences our behaviours and traits. This model attempts to explain why there are individual differences even in people who are raised in the same environment."

### Triadic Reciprocity (1986) Model

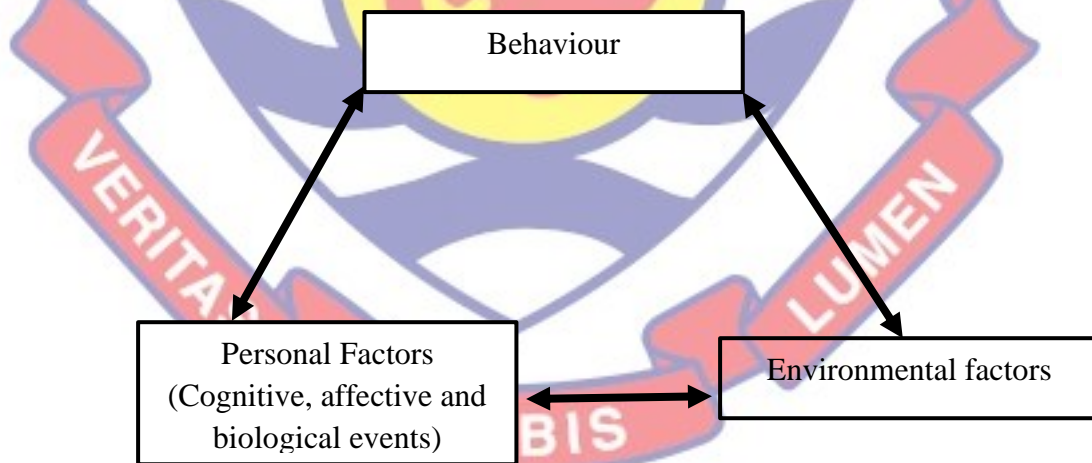


Figure 1: Triadic reciprocity model used in social cognitive theory developed by Albert Bandura.

The reciprocal nature of the determinants of human functioning in social cognitive theory makes it possible for therapeutic and counselling efforts



to be directed at personal, environmental, or behavioural factors. Strategies for increasing wellbeing can be aimed at improving emotional, cognitive, or motivational processes, increasing behavioural competencies, or altering the social conditions under which people live and work. In school, for example, teachers have the challenge of improving the academic learning and confidence of the students in their charge. Using social cognitive theory as a framework, teachers can work to improve their students' emotional states and to correct their faulty self-belief and habits of thinking (personal factors), improve their academic skills and self-regulatory practices (behaviour), and alter the school and classroom structures that may work to undermine student success (environmental factors). To predict how human behaviour is influenced by environmental outcomes, it is critical to understand how the individual cognitively processes and interprets those outcomes.”

“Bandura provided a view of human behaviour in which the beliefs that people have about themselves are critical elements in the exercise of control and personal agency. Thus, individuals are viewed both as products and as producers of their own environments and of their social systems. Because human lives are not lived-in isolation, Bandura expanded the conception of human agency to include collective agency. People work together on shared beliefs about their capabilities and common aspirations to better their lives. Environments and social systems influence human behaviour through psychological mechanisms of the self-system. Hence, social cognitive theory posits that factors such as economic conditions, socioeconomic status, and educational and familial structures do not affect human behaviour directly. Instead, they affect it to the degree that they influence people's aspirations, self-



efficacy beliefs, personal standards, emotional states, and other self-regulatory influences.

Bandura (1986), wrote that, through the process of self-reflection, individuals are able to evaluate their experiences and thought processes. According to this view, what people know, the skills they possess, or what they have previously accomplished are not always good predictors of subsequent attainments because the beliefs they hold about their capabilities powerfully influence the ways in which they will behave. Consequently, how people behave is both mediated by their beliefs about their capabilities and can often be better predicted by these beliefs than by the results of their previous performances. This does not mean that people can accomplish tasks beyond their capabilities simply by believing that they can, for competent functioning requires harmony between self-beliefs on the one hand and possessed skills and knowledge on the other. Rather, it means that self-perceptions of capability help determine what individuals do with the knowledge and skills they have. More important, self-efficacy beliefs are critical determinants of how well knowledge and skill are acquired in the first place.

The process of creating and using these self-beliefs is an intuitive one: individuals engage in a behaviour, interpret the results of their actions, use these interpretations to create and develop beliefs about their capability to engage in subsequent behaviours in similar domains, and behave in concert with the beliefs created. In school, for example, the beliefs that students develop about their academic capabilities help determine what they do with the knowledge and skills they have learned. Consequently, their academic performances are in part the result of what they come to believe that they have accomplished and can

accomplish. This helps explain why students' academic performances may differ markedly when they have similar ability. Researchers have suggested that these self-beliefs may play a mediational role in relation to cognitive engagement and that enhancing them might lead to increased use of cognitive strategies that, in turn, lead to improve performance (Pintrich & De Groot, 1990).”

“The self-beliefs that individuals use to exercise a measure of control over their environments include self-efficacy beliefs” – “beliefs in one’s capability to organize and execute the courses of action required to manage prospective situations” (Bandura, 1997, p.2). “Because self-efficacy beliefs are concerned with individuals’ perceived capabilities to produce results and to attain designated types of performance, they differ from related conceptions of personal competence that form the core constructs of other theories. Self-efficacy judgments are both contextual, more task and situation-specific, and individuals make use of these judgments in reference to some type of goal. To better understand the nature of self-efficacy beliefs it may be useful to explain how they are acquired, how they influence motivational and self-regulatory process, and how they differ from similar or related conceptions of self-belief.

“The case for the contextual and mediational role of self-efficacy in human behaviour can be made by exploring the four sources from which these beliefs are developed. The most influential source of these beliefs is the interpreted result of one’s purposive performance, or mastery experience. Simply put, individuals gauge the effects of their actions, and their interpretations of these effects help create their efficacy beliefs. Outcomes interpreted as successful raise self-efficacy; those interpreted as failures lower

it. Meanwhile, the concept of self-efficacy with theoretical and practical implications for organizational behaviour and human resource management is influenced by individual differences. It arises from the gradual acquisition of complex cognitive, social, linguistic, and or physical skills through experience (Bandura, 1997). Individuals appear to evaluate information about their

capabilities and then regulate their choices and efforts accordingly. They may judge their capabilities in comparison with others.”

“Bandura (1997), suggests that expectations of personal efficacy derive from four sources of information which are performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. On the other hand, Self-efficacy is assumed to have three components which are consists of magnitude (the levels of task difficulty that people believe they can attain), strength (the conviction regarding magnitude), and generality (the degree to which the expectation is generalized across situations). In assessing these components, the purpose is to discover the type of questions that will best explain and predict someone’s dispositions, intentions, and actions. Self-efficacy is a dynamic construct that changes over time as new information and experiences are acquired. It has been found that perceived task ability significantly affects performance even after controlling for other variables. Self-efficacy is also purported to improve skills (Gist, 1992.). Individuals with moderate to high self-efficacy tend to engage more frequently in task-related activities and persist longer in coping efforts. This leads to more mastery experiences, which in turn enhance self-efficacy.

As stated earlier, the most influential is mastery experience, or interpreted result of one’s previous performance (Bandura, 1997). Students



engage in tasks and activities, interpret the results of their actions, use these interpretations to develop beliefs about their capability to engage in subsequent tasks or activities, and act in concert with the beliefs created. It is the single greatest contributor to students' confidence. If students have been successful at a particular skill in the past, they will probably believe that they will be successful at the skill in the future." The old adage, "Nothing breeds success like success" certainly is true when it comes to developing self-efficacy.

"Students bring a wide variety of past experiences with them when they enter the classroom. Some of those experiences have been positive, others have not. How students interpret their past successes and failures can have a dramatic impact on their self-efficacy. If students believe their success in a particular area is the result of the skills they developed (their ability), they are much more likely to be confident about future success in that area. On the other hand, if students attribute their success solely to hard work, they may not necessarily expect future success, since they may not choose or even want to work equally hard on future assignments. Or they may believe they do not have the necessary skills to succeed in the future regardless of how hard they work. Although we, as teachers, know how much effort one puts into a task has a direct effect on the quality of the completed task, students often do not see the relationship. A pattern often exists for students who do not do well. Students who explain their poor performance as a lack of effort demonstrate higher self-efficacy than those who explain it as low ability. Students who have not done well, but believe that all they must do to succeed is work harder may still be very confident about their skills. These mastery experiences are the most powerful source of creating a strong sense of efficacy because they provide students authentic evidence that



they have the capability to succeed at the task. Students interpret the results of their activities and use these interpretations to develop beliefs about their capability to perform in subsequent tasks or activities. These interpreted results of one's own performances create a sense of self-efficacy. Bandura's (1986) emphasis that one's mastery experiences have important implications for the

self-enhancement model of academic achievement, which contends that, to increase student achievement in school, educational efforts should focus on altering students' beliefs of their self-worth or competence. This is usually accomplished through programs that emphasize enhancing self-beliefs through verbal persuasion methods. In general, successes built a strong sense of self-efficacy and failures lower it, especially when failures occur before a robust sense of efficacy is developed (Bandura, 1997). This robust sense of self-efficacy is not created by easy success; it requires experience in overcoming obstacles and difficult situations through maintained effort and persistence (Maddux, 2013).

The second source of creating self-efficacy is through observational experiences provided by social models (Bandura, 1997), that's the vicarious experiences. Students obtain information about their own capabilities by observing others, especially peers who offer suitable possibilities for comparison. An increase of self-efficacy through observational experiences can easily be enfeebled by following failures (Schunk, 1989). Though this vicarious source of information has a weaker effect than that of the performance-based information; people with little mastery experience or those who are uncertain about their capacities, are more sensitive to them (Bandura, 1997). When a student sees another student accomplish a task, the vicarious experience of

observing a model can also have a strong influence on self-efficacy. By observing others like themselves perform tasks, individuals make judgments about their own capabilities. If a student sees a friend publish a poem, he might believe he can also have one published. A third grader observing other third graders learn multiplication tables is likely to believe that he can also learn them. The more students relate to the model being observed, the more likely the model's performance will have an impact on them. Unlike the self-efficacy beliefs derived from past experience, self-efficacy information gleaned through observation is less stable. Once strong self-efficacy is developed from one's own personal successes, an occasional failure may not have negative effects; however, self-efficacy based on observing others succeed will diminish rapidly if observers subsequently have unsuccessful experiences of their own. Hence, self-modelling, where students observe themselves succeed, is also a powerful influence. Watching video tapes of successful performances or viewing photographs of past accomplishments can increase student confidence. Schunk (1989) demonstrated that the effects of models are particularly relevant and a significant model in one's life can help install self-beliefs that will influence the course and direction that life will take. Part of one's vicarious experience also involves the social comparisons made with other individuals. These comparisons, along with peer modelling, can be powerful influences on developing self-perceptions of competence (Schunk, 1989). Interaction effects can complicate evaluation of the relative power of different modes of influence. For example, a model's failure has a more negative effect on the self-efficacy of observers when observers judge themselves as having comparable ability to the model. If, on the other hand, observers judge their capability as superior to

the model's capability, failure of the model does not have a negative effect (Brown & Inouye, 1978).

This social persuasion is the third source that helps students develop beliefs of self-efficacy. Persuasive communication and evaluative feedback are most effective when people who provide this information are viewed by students as knowledgeable and reliable, and the information is realistic.

“Positive precursory feedback heightens self-efficacy, but verbal persuasion alone is limited in its power to create a strong and abiding sense of self-efficacy (Schunk, 1989).” “Although verbal persuasion can be important, it does not contribute as much as an individual's own experiences or vicarious experiences.

The short-term effects of persuasion need to be coupled with actual successes.

Individuals also create and develop self-efficacy beliefs as a result of the verbal persuasions they receive from others.” These persuasions involve exposure to the verbal judgments that others provide and is a weaker source of efficacy information than mastery or vicarious experiences, but persuaders can play an important part in the development of an individual's self-beliefs (Zeldin &

Pajares, 1997). Effective persuasions should not be confused with knee-jerk praise or empty inspirational talks (Bandura, 1997). This is consistent with

Erikson's (1980) caution that a weak ego is not strengthened by being persistently bolstered and that “children cannot be fooled by empty praise and condescending encouragement” (p. 95). Rather, “a strong ego, secured in its

identity by a strong society, does not need, and in fact is immune to any attempt at artificial inflation” (p. 47). Persuaders must cultivate people's beliefs in

their capabilities while at the same time ensuring that the envisioned success is attainable. And, just as positive persuasions may work to encourage and



empower, negative persuasions can work to defeat and weaken self-beliefs. In fact, it is usually easier to weaken self-efficacy beliefs through negative appraisals than to strengthen such beliefs through positive encouragement (Bandura, 1986).

There is a fourth source of efficacy information that people draw from their physiological, emotional and mood states. Symptoms and feelings such as anxiety, stress reactions, tension and excitement can be interpreted as signals of failure and debility. Individuals have the capability to alter their own thinking, self-efficacy beliefs, in turn, also powerfully influence the physiological states themselves.” “Bandura (1997) has observed that people live in psychic environments that are primarily of their own making. It is often said that humans can read for themselves, and so this reading becomes an actualization of the thoughts and emotional states that the individual has created for himself.

Often, they can gauge their confidence by the emotional state they experience as they contemplate an action.” “Moreover, when people experience aversive thoughts and fears about their capabilities, those negative affective reactions can themselves further lower perceptions of capability and trigger the stress and agitation that help ensure the inadequate performance they fear.” “This is not to say that the typical anxiety experienced before an important endeavour is a guide to low self-efficacy. Strong emotional reactions to a task, however, provide cues about the anticipated success or failure of the outcome. A positive mood state strengthens someone’s self-efficacy, a dejected mood state enfeebles it. People rely in part on these states in assessing their capacities by perceiving and interpreting this information (Schunk & Pajares, 2009). As people have the capacity to modify their own thinking and feeling, students with



a high sense of self-efficacy can view a state of tension as energizing in the face of a performance; whereas those who have self-doubts interpret their tension as weakness. It is believed that sweaty hands or a dry mouth are often interpreted as signs of nervousness. Students may feel that such signs indicate they are not capable of succeeding at a particular task. Conversely, students can be aware

that they feel relaxed before confronting a new situation and develop a greater sense of efficiency towards the task at hand. “

### *Effects of Self-efficacy Beliefs ”*

“Most people engage in tasks in which they feel competent and confident and avoid those in which they do not. William James (1985) wrote that experience is essentially what individuals choose to attend to. If this is the case, then the self-beliefs that influence those choices are instrumental in defining one’s experience and providing an avenue through which individuals exercise control over the events that affect their lives. Beliefs of personal competence also help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will prove in the face of adverse situations - the higher the sense of efficacy, the greater the effort, persistence, and resilience. Efficacy beliefs also influence the amount of stress and anxiety individuals experience as they engage in a task and the level of accomplishment they realize.

Strong self-efficacy beliefs enhance human accomplishment and personal well-being in many ways (Bandura, 1986, 1997). People with a strong sense of personal competence in a domain approach difficult tasks in that domain as challenges to be mastered rather than as dangers to be avoided, have greater intrinsic interest in activities, set challenging goals and maintain a strong

commitment to them, heighten their efforts in the face of failure, more easily recover their confidence after failures or setbacks, and attribute failure to insufficient effort or deficient knowledge and skills which they believe they are capable of acquiring.

High self-efficacy helps create feelings of serenity in approaching difficult tasks and activities. Conversely, people with low self-efficacy may believe that things are tougher than they really are, a belief that fosters stress, depression, and a narrow vision of how best to solve a problem. As a result of these influences, self-efficacy beliefs are strong determinants and predictors of the level of accomplishment that individuals finally attain. For these reasons, Bandura (1986, 1997) has made the strong claim that beliefs of personal efficacy constitute the key factor of human agency.”

#### *“Self-efficacy and Outcome Expectations”*

“Bandura (1986) has drawn a distinction between the roles of self-efficacy beliefs versus those of outcome expectations in influencing motivation and predicting behaviour.” According to Bandura (1986), “judgments of personal competence to engage in a behaviour differ from judgments of the likely consequence that behaviour will produce” (p. 39). Efficacy beliefs in part determine outcome expectations. Individuals who expect success in a particular enterprise anticipate successful outcomes. Students confident in their academic skills expect high marks on exams and expect the quality of their work to reap benefits. The opposite is also true of those who lack such confidence. Students who doubt their academic ability envision low marks before they begin an exam. The expected results of these imagined performances will be differently envisioned: continued good grades and academic success for the

former, curtailed possibilities and academic failure for the latter. Bandura (1986) argued that the outcomes people expect are largely dependent on their judgments of what they can accomplish. As a consequence, outcome expectations should not make an independent contribution to predictions of behaviour when self-efficacy perceptions are controlled. This is not to suggest

that efficacy and outcome judgments are always consistent.” Students may realize that strong mathematics skills are essential for a good score on the Graduate Record Examination (GRE) and admission to graduate school, which, in turn, may ensure a prestigious career and affluent lifestyle, but if they have low confidence in their math abilities they may shy away from certain courses and may not bother to take the GRE or apply to graduate school. High self-efficacy and negative outcome expectations are similarly possible. A student reasonably confident in her chemistry capabilities may elect not to enrol in a chemistry course because the professor’s grading curve is such as to discourage all but the hardiest souls.”

Kirsch (1985), for example, argued that Bandura used the term outcome expectations in two different ways. For example, knowledge of logical and immutable consequences, such as knowing that a good score on the GRE will result in graduate school admission, is a perceived environmental contingency, i.e., an outcome expectation beyond an individual's control. These outcome expectations are independent of one’s own self-perceptions of competence. This meaning, Kirsch argued, is at odds with Bandura’s claim that outcome expectations primarily derive from judgments of how well one can execute requisite behaviours, and, only in this latter sense are outcomes dependent on performance and at the mercy of efficacy beliefs.



Actually, Bandura (1997), has attempted to draw a clear distinction between different forms of outcome expectations and has specified conditions under which outcome expectations are determined entirely, partial, or not at all by efficacy beliefs, as well as the socio-structural conditions determining the degree of relation between efficacy and expected outcomes. When the outcomes that result from specific performances are not themselves controlled by such performances, efficacy beliefs account for a smaller part of the variance in outcome expectations. In prejudicially structured systems, for example, outcomes can be highly independent of the performances in which individuals engage and of the outcomes that result from those performances. When individuals in excluded groups perceive that desired outcomes will not result from their efforts, no matter how hard they work, efficacy beliefs will result in little control over environments and will not be predictive of outcomes.

Earlier researchers contend that in many cases self-efficacy judgments are themselves dependent on outcome expectations and that Bandura (1978) oversimplified the relationship between the two constructs (Eastman & Marzillier, 1984; Kazdin, 1978; Teasdale, 1978). To illustrate the potential complexity of this relationship, Marzillier and Eastman (1984) used the example of a socially anxious man who is asked to attend a party. The outcomes perceived by this individual are bleak indeed - others at the gathering will ridicule him, he will be unable to talk to anyone, he will drink too much, and he will surely make a fool of himself. Marzillier and Eastman argued that these outcome expectations are as important in determining whether the man will attend the party as is his belief in whether he can cope with the demands of the occasion. They argued that individuals can infer their efficacy beliefs from such



imagined outcomes, and they suggested that individuals' perceptions of an outcome and their value of the task necessary to achieve that outcome can regulate their behaviour as powerfully as their self-efficacy beliefs, and even independent of them.

Bandura (1986), countered that “one cannot conjure up outcomes without giving thought to what one is doing and how well one is doing it” (p. 2). “The socially anxious man confronted with the decision of whether to attend the party envisions disastrous outcomes largely because he has little confidence in his capabilities to meet the demands associated with parties.” Fore-sightful action requires a causal ordering wherein causal thinking places the actions in which an individual engages before the outcomes that result from them. It is unlikely that our man, when faced with the decision of whether to attend the party, envisions the disastrous outcomes and concludes that he has little confidence in his party skills.” “Likewise, students do not envision low grades and academic difficulties and from this conclude that they have little confidence in their academic capabilities. More likely, lack of confidence to exercise control over a particular situation creates the envisioned outcomes.” Students who lack confidence in their academic capabilities will likely envision the poor academic outcomes that will result from their low performance attainments. It is also possible, Bandura argued, to exclude considerations of outcome from judgments of personal efficacy.” For example, students are capable of assessing their academic capabilities quite apart from any outcomes they may envision. The differing roles played by beliefs of personal competence versus beliefs about likely outcomes continues to be an area of study, but various

research studies aimed at clarifying this interplay support the contentions of social cognitive theory (Bandura, 1997).

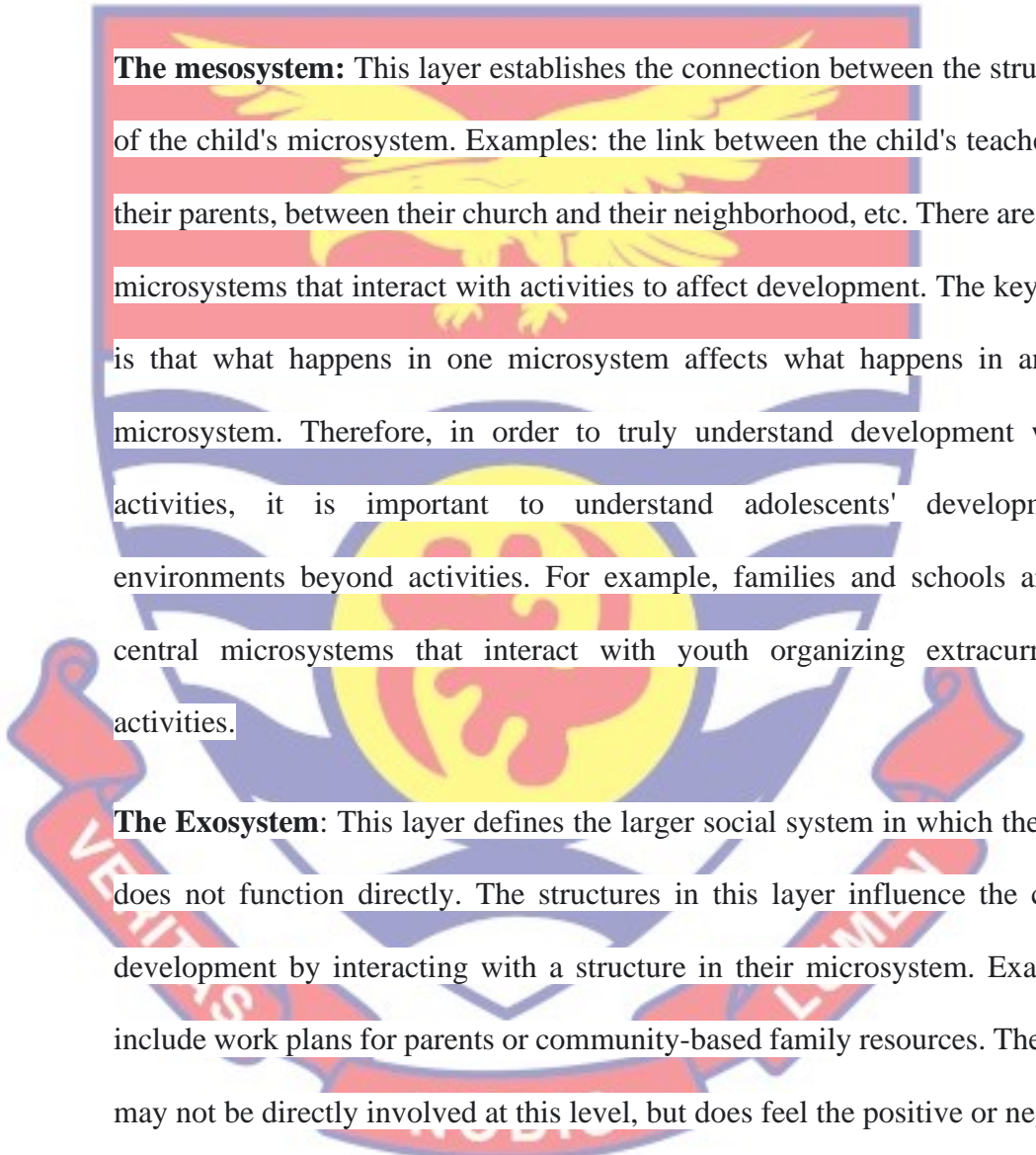
### **Ecological Systems Theory**

Ecological systems theory as proposed by Urie Bronfenbrenner (1979) shows how human development is influenced by different types of environmental systems. Bronfenbrenner's theory defines complex environmental layers, each of which has an impact on an individual's development. Changes or conflicts in one level affect other levels. Thus, in order to study a child's development, we need to consider not only the child and its immediate environment, but also its interaction with the larger environment. In this theory, the layers of the environment are view as a set of concentric circles, each within the other. Bronfenbrenner proposed that the environment consist of five layers. Namely: microsystems, mesosystems, exosystems, macrosystems and chronosystems. Each of these layers plays a role in the development of individuals at various stages of their lives.

#### **Structure of the Environment**

**The Microsystem:** This is the layer closest to the child and contains the structures with which the child has direct contact. The microsystem encompasses the relationships and interactions a child has with their immediate environment. Structures in the microsystem include family, school, neighborhood or childcare environments. At this level, relationships work in two directions—both away from and toward the child. For example, a child's parents can influence their beliefs and behavior; However, the child also influences the behavior and beliefs of the parents. Bronfenbrenner names these

bidirectional influences and shows how they occur at all environmental levels. The interaction of structures within a layer and interactions of structures between layers is key to this theory. At the microsystem level, bi-directional influences are strongest and have the greatest impact on the child. However, interactions on outer levels can still affect inner structures.

The logo of the University of Cape Coast is a watermark in the background. It features a shield with a yellow eagle at the top, a red and yellow circular emblem in the center, and a red banner at the bottom with the motto 'VERITAS LIBERABIT VOS'.

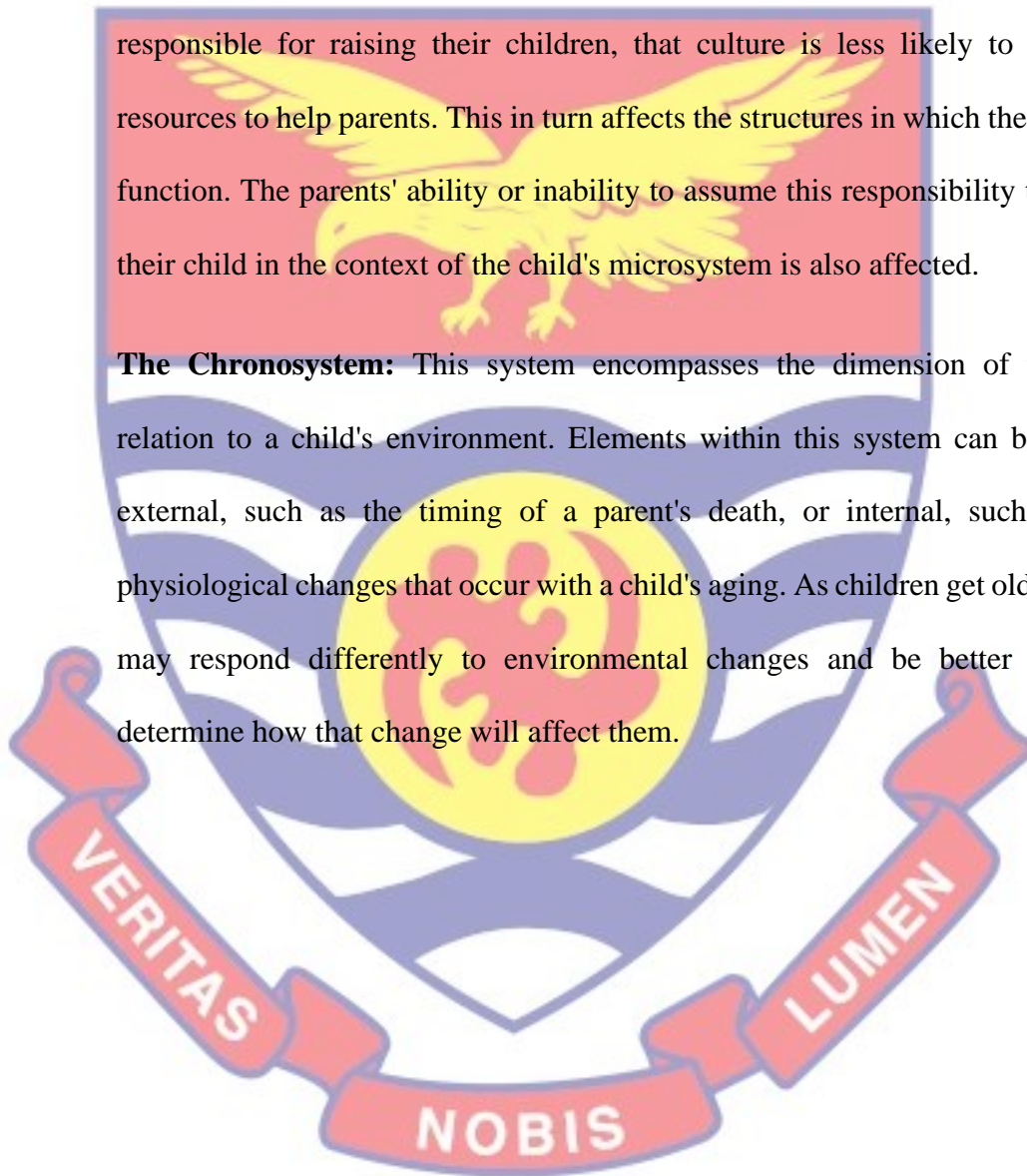
**The mesosystem:** This layer establishes the connection between the structures of the child's microsystem. Examples: the link between the child's teacher and their parents, between their church and their neighborhood, etc. There are many microsystems that interact with activities to affect development. The key point is that what happens in one microsystem affects what happens in another microsystem. Therefore, in order to truly understand development within activities, it is important to understand adolescents' developmental environments beyond activities. For example, families and schools are the central microsystems that interact with youth organizing extracurricular activities.

**The Exosystem:** This layer defines the larger social system in which the child does not function directly. The structures in this layer influence the child's development by interacting with a structure in their microsystem. Examples include work plans for parents or community-based family resources. The child may not be directly involved at this level, but does feel the positive or negative force involved in interacting with their own system. The exosystem trickles down to influence development through the other people involved in the individual's life.

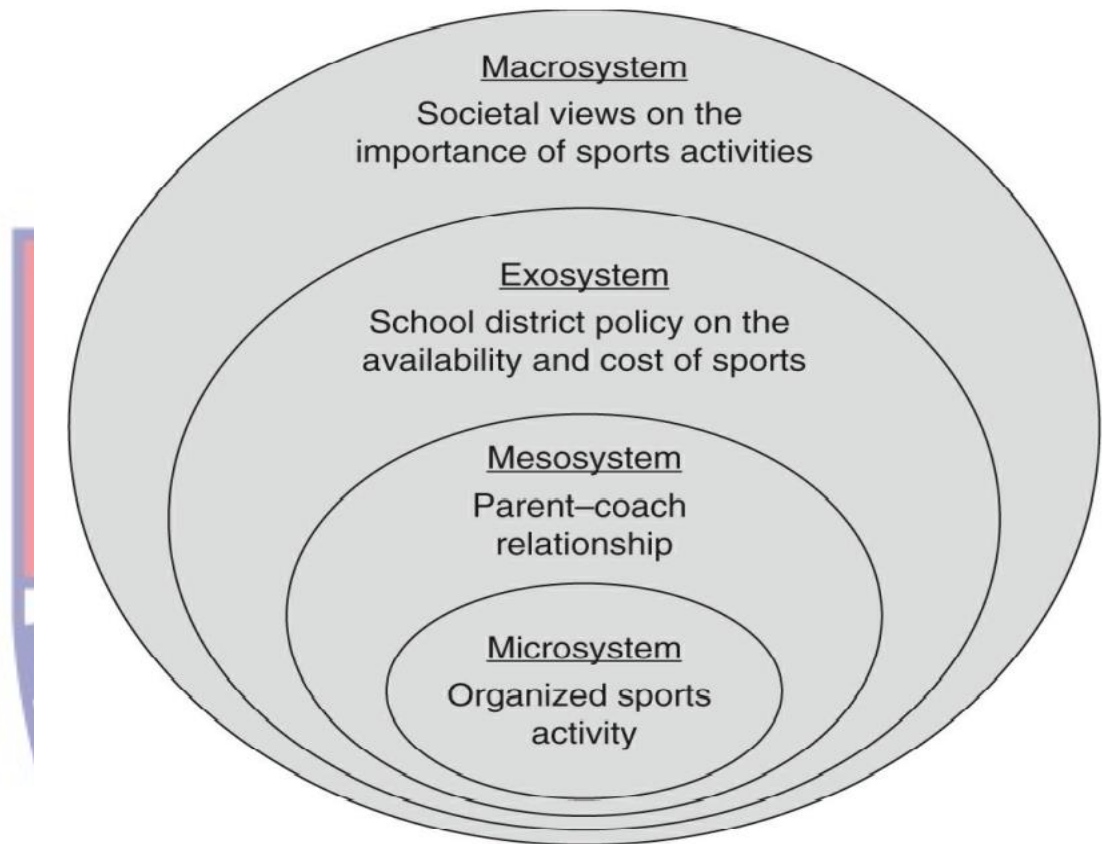


**The macro system:** This layer can be considered as the outermost layer in the child's environment. Although not a specific framework, this layer consists of cultural values, customs and laws (Berk, 2000). The effects of larger principles defined by the macrosystem have a cascading impact on the interactions of all other layers. For example, if the culture's belief is that parents should be solely responsible for raising their children, that culture is less likely to provide resources to help parents. This in turn affects the structures in which the parents function. The parents' ability or inability to assume this responsibility towards their child in the context of the child's microsystem is also affected.

**The Chronosystem:** This system encompasses the dimension of time in relation to a child's environment. Elements within this system can be either external, such as the timing of a parent's death, or internal, such as the physiological changes that occur with a child's aging. As children get older, they may respond differently to environmental changes and be better able to determine how that change will affect them.



### Diagrammatic Representation of The Ecological Systems Theory



In relation to this study, there may be different factors that might affect the academic self-efficacy of the individual. These factors may range from events that are very immediate to the individual to events that are not so close to the individual. This implies that in addressing the factors that influence the academic self-efficacy of the students, we do not only have to explore those events that are immediate to the individual but also the factors that may seem to be distant from the individual such as cultural values, beliefs, and laws that govern the schools.

## Conceptual Review

### Student academic self-efficacy

The academic self-efficacy concept does not refer to the abilities of the individual or personal resources that allow them to control the continuous changing circumstances of the academic environment (Bandura, 2012). This process is the idiosyncratic assessment mediating between the situation or task, the student activation and their performance, so that the higher the level of personal academic efficacy expectations, the greater the efforts made and the more the time spent by the individual to achieve learning goals (Puente, 2005). If the student has optimal abilities and there are appropriate incentives, the expectations about the efficacy will become an essential determining factor of the type of activity to be chosen by the student, how much effort will be made in the activity and how long efforts will be made to manage the stress producing behaviours (Colom et al, 2012). As for the last aspect, individuals tend to prevent transactions with the stress producing environments when the demands are considered as a threat and the individual's capabilities are not enough to meet them satisfactorily (Chemers, Hu & García, 2001). As for the relationship between the affective dimension and self-efficacy, Tuckman and Monetti (2011) established that self-efficacy beliefs produce feelings or emotions before performance, that is, the fact of believing that it is likely to be successful in facing something, gives rise to positive feelings, while failure produces negative emotions; pleasure and anxiety during performance (Zajacova, Lynch & Espenshade, 2005).

Self-efficacy influences the actions and success of individuals in different areas, thereby facing and overcoming fears, having success throughout



life and having a good academic performance (Zajacova et al., 2005). The students with high academic self-efficacy will use more cognitive strategies that are useful to learn, organize their time and regulate their own efforts. Academic self-efficacy provides confidence to control different academic situations. Bong and Skaalvik (2003) stated that a student with a strong self-efficacy and positive self-concept will be more likely to set difficult but possible goals, continue to work for more time on challenging activities, enjoy academic activities more than those with a weak self-efficacy and negative self-concept. Bong and Skaalvik (2003), suggest that academic self-efficacy beliefs are necessary to develop an academic self-concept as self-concept includes conceptions of ability and worth that are influenced by general impressions and comparisons.

### **Empirical Review**

This part of the literature discusses the findings that past research have found in relation to the various research questions and hypothesis of the presents study.

### **Students' level of academic self-efficacy and academic performance**

The relationship between self-efficacy and performance is well documented. In recent years, researchers have become increasingly interested in teachers' and students' self-efficacy in relation to their performance in academic setting (e.g., Hassan & Alasmari, 2015; Alrabai, 2018; Kurbanoglu et al., 2018). It is believed that students with high degree of self-efficacy are more likely to attain higher academic achievement (Yip, 2019; Lee & Stankov, 2017). For example, Caraway et al. (2003) argue that students' enhanced self-efficacy helps in improving their academic achievements and participation in school. On the basis of such empirical findings, Choi (2005) emphasizes that classroom

environment and activities should be focused in order to enhance students' self-concept and self-efficacy. Various researchers locate a direct proportional link between self-efficacy beliefs and performance (e.g., Motlagh, Yazdani & Souri, 2011; Li, 2012; Jahanian & Mahjoubi, 2013; Loo & Choy, 2013; Azar, 2013; Hassan & Alasmari, 2015). A positive connection between high self-efficacy and academic performance has been well documented. Empirical data suggest that students with high self-efficacy employ their skills and capabilities in an effective way to overcome the obstacles and challenges in their pursuit of success (Camgoz et al., 2008). Considering self-efficacy as a psychological factor, Gore, Leuwerke, Metz, Brown, and Kelly (2019), study its relationship with students' achievements and their adjustment in college. Yusuf (2011) argues that self-efficacy coupled with achievement motivation, and learning strategies had a great impact on students' academic achievement. Doménech-Betoret et al. (2017) analyse the relationships among academic self-efficacy, students' expectancy-value beliefs, teaching process satisfaction, and academic achievement. The findings show that students' expectancy-value beliefs, including the value of the subject, process and achievement expectancy, cost expectancy, played a mediator role between academic self-efficacy and the achievement or satisfaction relationship.

In the improvement of academic self-efficacy, it is clear that different factors play important roles. Schunk and Pajeras (2001), states that in shaping the academic self-efficacy, family, friends, school, and transitional influences are highly important. Additionally, it is also claimed that teachers' roles would add to shaping of student academic self-efficacy (Tutor, 2008). According to a study conducted by Banfield (2009), teachers' negative behaviour in class

affected students' self-efficacy negatively. On the other hand, encouraging behaviours of teachers to students affected students positively in building self-efficacy. For instance, when a student who experienced failure in the classroom was given a positive feedback by the teacher, the self-efficacy of the student might gain strength, and this could help student to turn his failure into a success in the future (Kemp, 2011). Thus, Teachers need to be careful with their type of behaviour and their feedback against their students for the sake of the academic self-efficacy of their students.”

“Academic self-efficacy, which reflects student's personal beliefs in his own capacities to achieve educational duties at expected levels increases student's mental efforts to learning (Gore, 2006). Students whose academic self-efficacy levels are strong put persistent efforts to overcome the academic duties assigned to them and do not give up easily. Moreover, when students with higher academic self-efficacy are compared to the ones with low self-efficacy, it was found that those having higher academic self-efficacy study more, and by using efficient learning strategies, manage difficult academic duties effectively (Chemers, Hu, & Garcia 2001, Margolis, & McCabe, 2004; Zimmerman, 2000). Studies showing that students with higher self-efficacy levels could manage their school life better are available in the literature (Chemers, Hu, & Garcia 2001, Schunk, 1985). Students with low levels of academic self-efficacy experience academic failure more, and have problems in devoting themselves to school (Bandura, 1997). In other words, students with low academic self-efficacy levels, draw themselves away from academic duties, show avoidance, experience motivation problems, and experience anxiety with school (Lodewyk & Winne, 2005). Nonetheless, students with high levels of self-efficacy devote



themselves to school better, and be more optimistic (Chemers, Hu, & Garcia 2001). Unsuccessful experiences of students affect their academic self-efficacy negatively. Bassi, Stace, Fave and Caprar (2007), state that students with high self-efficacy are more willing to perform academic duties given to them when compared to the ones with low self-efficacy. Academic self-efficacy is also related with the vulnerability of students. Students with low academic self-efficacy, despite their ability levels, are more fragile in the classroom (Pajares, 1996). Since students with high academic self-efficacy are less fragile when compared to students with low academic self-efficacy, they tend to struggle fearlessly against failure in terms of their own beliefs. Academic self-efficacy is also beneficial for students to be positive individuals in social, emotional, and academic aspects (Wuebbels, 2006). It was confirmed that there is a significant relationship between academic self-efficacy of students and their adjustment levels (Gore, 2009; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2004).

Moreover, Nie, Lau and Lieau (2011), stated that students whose academic self-efficacy is higher experience less academic stress and anxiety. In another study, conducted by Poyrazli (2004), it was found that there is a negative relationship between academic self-efficacy and loneliness. There are also studies claiming that self-efficacy is closely related with problem behaviours. Chung and Elias (1996) specified that the more the problem behaviours of the students are, the less their academic self-efficacy is. Similarly, Bandura (1997), stated that students having low levels of academic self-efficacy fail to have strong relationships with their friends, and show more violent behaviours when compared to students with higher levels of academic self-efficacy. When students with higher academic self-efficacy perform weakly,

they blame themselves for not putting enough effort, students with lower levels of academic self-efficacy, on the other hand, explain their failure through their own abilities (Bandura, 1997).

It could be clearly seen that there is a strong, significant positive relationship between academic self-efficacy and academic success. However, while some studies stated that academic self-efficacy causes academic success of the students (Gore, 2009; Elias, & MacDonald, 2007, Hejazi, Shahraray, Farsinejad, & Asgary, 2009), other studies claimed that academic success makes academic self-efficacy stronger (Chemers, Hu, & Garcia, 2001; Joo, Bong, & Choi, 2003).

#### **Students' Academic Performance**

According to Narad and Abdullah (2016) academic performance is the knowledge gained which is assessed by marks by a teacher and or educational goals set by students and teachers to be achieved over a specific period of time. They added that these goals are measured by using continuous assessment or examinations results. Arhad, Zaidi and Mahmood (2015), also indicated that academic performance measures education outcome. They stressed that it shows and measures the extent to which an educational institution, teachers and students have achieved their educational goals. Similarly, Yusuf, Onifade and Bello (2016) opined that academic performance is a measurable and observable behaviour of a student within a specific period. He added that it consists of scores obtained by a student in an assessment such as class exercise, class test, mid-semester, mock examination, and end of semester examination. Again, Martha (2009) emphasized that academic performance of students is defined by a student's performance in an examination, tests, and in a course work.

Furthermore, academic performance is a result of intellectual capability and motivation as well (Vecchio, Gerbino, Pastorelli, Bove, & Caprara, 2007). Based on replicable findings from several studies, Witt-Rose (2003), states that gender and attitude influence academic performance to some extent through their mediating effects on an individual's self-efficacy beliefs. It is evident that students play a critical role towards their academic performance. Students' factors such as developing interest in a subject, engaging in co-curricular activities (Javanthi et al. 2014), regular studying, self-motivation, punctuality in school (Sibanda et al. 2015; Khan & Ahmed, 2013), and students' personal goals as well as personality traits (Ulate & Carballo, 2011) affect their academic performance.

According to Maric and Sakac (2014), students' factors that affects their academic performance could be classified into Internal and social factors. They found that the internal factors that influence students' academic performance included interest in content of a subject, internal satisfaction, and aspiration. The social factors also included social prestige and material reward. Dev (2016) corroborated that students' level of interest in a subject influences their academic performance. Similarly, Kpolovie, Joe, and Okoto (2014) asserted that students' attitude to school and their interest in learning influence their academic performance

Moreover, Komakech (2015) found that there is a positive relationship between students' attendance to school and academic performance. Using correlational approach to assess attendance on academic performance in Nigeria, Ayodele (2017) had the same result as Komakeck. He found that there is a positive correlation between class attendance and academic performance.



Stanca (2006) also found that class attendance has a statistical significant impact on academic performance. Several studies have also found the same relationship (Lukkarinnen, Koivukangas, Seppala, 2016; Aden, Yahye, Dahir, 2013; Duran-Narucki, 2008).

The attitude of students towards their learning have been found to have a significant relationship with academic performance. For example, Awang, Ahmad, Bakar, Ghani, Yunus et al. (2013) found that there is statistical significance relationship between students attitudes towards their learning and academic performance. Janssen and O'Brien (2014) argued that although students learning has an impact on academic performance, it is indirect. Notwithstanding their findings, Manoah, Indoshi and Othuon (2011) confirmed that in the case of mathematics, students' attitude towards the subject has a direct impact on their academic performance. However, Langat (2015) found that students who had positive attitudes towards mathematics did not affect their mathematics score.

Afzal, Ali, Khan and Hamid (2010) asserted that students' personal motivation plays a vital role towards their academic performance. They found that both intrinsic and extrinsic motivation has a positive on students' academic performance. They added that intrinsic motivation has a strong predictor towards academic performance than extrinsic motivation. Similarly, Haider, Quereshi, Pirzada and Shahzadi (2015) concluded that motivation play an important role in the success of a student academics. In their study, they found that intrinsic and extrinsic motivation had a positive statistical significance relationship with academic performance. They outlined that students' motivational characteristics such as self-exploration, altruism, and career

focused and manages social pressure have a positive impact on their academic performance. Using structural equation modelling analysis to assess the effect of motivation on performance, Kusurkar, Cate, Vos and Croiset (2013) categorised motivation into Random Autonomous Motivation (RAM), Controlled Motivation (CM) and Autonomous motivation (AM). They found that RAM which they define as intrinsic motivation is positively correlated with academic performance. Additionally, Amrai, Motlagh, Zalani and Parhon (2011) argued that the academic performance of students is affected by a combination of different motivational factors.”

“Literatures reviewed indicated that students’ factors which influence academic performance is a combinations of several indicators. From this review, it has been found that interest in a subject, regular studying, class attendance, self-motivation and attitude of student towards learning appear to be the key factors which affect their academic performance. All the literature reviewed with the exception of Langat (2015) who found that there is a positive relationship between these factors and academic performance. This implies that if a student exhibits positive attitude towards these factors his/her academic performance will improve, all other things being equal.”

“Teachers play vital role towards the academic performance of students. A study conducted by Kimani, Kara and Njagi (2013) in Kenya on teacher factors influencing academic achievement, found that teachers experience, age, gender and professional qualification had no statistical significant relationship with academic performance of students. However, they noticed that performance targets, completion of syllabus, paying attention to weak students, assignments, student evaluation, and the teaching workload of a teacher had

significant relationship with students' academic performance. In Nigeria, Akiri and Ugborugbo (2009), also found that there is no statistical relationship between teacher effectiveness and academic performance.

Ganyaupfu (2013), on the other hand, asserted that combination of teacher and student centred method have a positive effect on academic performance. They concluded that student centred method is more effective than teacher approach. Musili (2015), added that teacher experience and professional training have a significant impact on students' performance. Blazar (2016), confirmed that the impact teachers have on the academic performance of their students is substantial. He, however, stressed that little is known about the specific teacher factors which contributes to the academic performance of students.

“Furthermore, Akinsolu (2010), concluded that teacher-student ratio, teacher's experience and qualification have a significant impact on academic performance. Similarly, Ewetan and Ewetan (2015) emphasized that the level of teacher's experience has significant impact on academic performance in English Language and Mathematics. They posited that school with teachers with more than 10 years' experience perform better than school with teachers with less than 10 years' experience. Teacher factors that significantly affect students' academic performance as reviewed above includes: Teachers teaching experience, completing of syllabus, paying attention to weak students, assignments, students' evaluation, teacher effectiveness, teacher and student-centred method of teaching, professional training, teacher to student ratio and qualification of teachers. It was also noticed that a teacher's age and gender have no effect on students' academic performance.



Recent studies have found that parental involvement have a positive impact on the academic performance their wards. McNeal (2014), for example, revealed that parent involvement directly affects the behaviour and students attitudes but indirectly influence their academic performance. Clarke (2019), emphasized that students with high level of parental involvement in their academics significantly perform better than those students with no parental involvement in English Language arts and Mathematics. Using a multiple mediational analysis, Topor, Keane, Shelton and Calkins (2010) found that there is a statistical significance association between parental involvement and the wards academic performance. In Pakistan, Rafiq, Fatima, Sohail, Saleem and Khan (2013) had the same results. They emphasized that parental involvement has a significant effect in improving the academic performance of students. In South Africa, Mutodi and Ngirande (2014), found that parent-teacher communication, family and home support as well as parenting have is positively related to academic performance. They concluded that the most significant predictor of academic performance is the family and home support. Empirically, parental involvement has been found to have a significant positive impact on the academic performance of the wards but the degree and level of parental involvement varies and this has an indirect effect on the academic performance of their children.

In Ghana, Chowa, Masa and Tucker (2013) posited that the involvement of parents towards their wards academic performance is categorized into home-based and school-based parental involvement. Their study revealed that home-based parental involvement has a positive significant relationship with their wards academic performance but there is a negative

relationship between school-based parental involvement and academic performance. Similarly, Mante, Awereh and Kumea (2015) also concluded that parental involvement affects the academic performance of their students but the direction of the impact was not stated. Additionally, Mwirichia (2013) noticed that parental involvement in the academic performance of students has different forms. He found that there is parent involvement in educational activities at school, parent-school communication and parents' involvement in academic activities at home. The study concluded that parent's involvement in home academic activities have a direct influence on the academic performance of their wards; it was realized that parent's involvement in academic activities at school has an indirect effect on academic performance; and the impact of parent-school communication on academic performance was found not to be a strong predictor. It was recommended that parents provide home-school tutorials for their wards and there should be rules to govern their children's studying behaviour in the house. Caro (2011), also found that parent-school communication as a positive impact on their wards' education."

School based factors are factors within the school which influence academic performance. Yambo and Adhanja (2016) found that in Kenya public schools, the key school factors which affect academic performance are modern laboratories and text-books. Within the same country, Nambuya (2013) revealed that the availability of physical resources such as library, text-books, adequacy of classrooms and spacious playing ground affect the academic performance of students. In Tanzania, Tety (2016) noticed that instructional materials have an impact on academic performance. Awolaju (2016), Olayinka (2016), and Adipo (2015) also found that students who are taught with

instructional materials in Nigeria perform better than students taught without instructional materials. Similarly, Krukru (2015) found that in Nigeria, instructional materials have a significant impact on academic performance. He asserted that the use of instructional materials facilitates the smooth delivery of a lesson and it enhances teaching and learning. The use of instructional materials assist students to understand the concept of a subject better. As a result of this students who are taught with instructional materials perform better than student taught without instructional materials (Adalikwu & Lorkpilgh, 2013).

“The location of a school has also been found to have a significant impact on the academic performance of students. Mhiliwa (2015) opined that the distance of a school affects the academic performance of students. He emphasized that the longer the distance of a school from a student’s residence the more tired and hungry the student becomes hence it will negatively affect their academic performance. He argued that students in community schools will continue to perform poorly if community schools are not provided within their community. According to Ellah and Ita (2017), students in urban areas tend to perform better in English language than those in rural areas. This indicated that the location of the school has an influence on students’ performance in English Language. However, Yusuf and Adigun (2010) found that there is no statistical significance relationship between school location and academic performance.

Again, it was found that schools with suitable rules and regulation; fair punishment; and good implementation of students’ rules and regulations perform better than school with less suitable rules and regulations (Mussa, 2015). Ehiane (2014) also recommended that effective school discipline should be used to control students’ behaviour because it has a direct impact on their



academic performance. Simba, Agak and Kabuka (2016) concluded that discipline has a positive relationship with academic performance. They asserted to improve on academic performance the discipline level of students should be enhanced.

Moreover, the size of a class or students to teacher ratio has also been found as a school factor which influence academic performance. According to Ajani and Akinyele (2014), there is a significant relationship between teacher to students' ratio and a student's performance in Mathematics. Zyngier (2014) argued that if the class size is smaller and is combined with effective teaching, its impact on the academic performance is positive. Similarly, Bakasa (2011) found that school factors such as effective teaching when combined with class size have a positive impact on academic performance. However, Owoye and Olatunde (2011) found that there is no statistical difference between class size of schools in the urban areas and rural areas on academic performance. Vandenberg (2012) corroborated that class size has no significant impact on academic performance. According to Sabitu, Babatunde and Oluwole (2012), there is a statistical significant difference in school facilities of private and public schools but in terms of academic performance there is no statistical difference. On the other hand, Owoye and Yara (2011) stressed that school facilities is the most important determining factor of academic performance.

With respect to school environment, Lawrence and Vimala (2012), found that there is no statistical significant relationship between school environment and academic performance but other studies said otherwise. For example, Odeh, Oguche, and Dondo (2015), found that school environment has significant impact of academic performance. Duruji, Azuh, and Oviasogle

(2014), also found that school environment has a statistical significance relationship with academic performance. School factors which affect academic performance is enormous as revealed by the literatures above. However, it has been proven that the key school factors which directly influence academic performance includes: instructional materials, discipline, effective teaching, class size and the school environment.”

### **Difference existing in students’ academic self-efficacy level on the basis of gender.**

“Narrative reviews have been conducted regarding gender differences in academic settings. Pajares (2005), who summarized research on gender differences in math self-efficacy, reached four major conclusions. First, most studies indicated that male students had higher mathematics self-efficacy than females, while other studies did not. This inconsistency was related to variables used in regression equations. Second, gender differences in mathematics self-efficacy typically develop during middle school and increase as student age increases. Third, female students do not have higher mathematics self-efficacy than male students at any educational level. Finally, male students typically have higher mathematics self-efficacy than females, even when males and females have comparable achievement levels or when females outperform males. The pattern of gender differences in writing self-efficacy differs from that in mathematics self-efficacy. Pajares (2005) reviewed literature on gender differences in writing self-efficacy, concluding that females generally have higher writing self-efficacy than males during middle school; this gender gap disappears or reverses as students’ age. For gender differences in self-efficacy for self-regulated learning, Pajares (2003) proposed that female students were

generally more confident than male students. Friedel et al. (2007) investigated mathematics self-efficacy of 1,021 grade 7 students and found that no gender differences existed. In a longitudinal investigation of mathematics self-efficacy for a cohort of children in grades 5-7, Kenney-Benson et al. (2006) identified no significant gender differences in two waves of data.

The relationship between gender and academic performance has been extensively researched over the past decade (Eitle, 2005, cited in Farooq & Berhanu, 2011). According to Ghazvini and Khajehpour (2011), there is a difference between the cognitive level of boys and girls. They found that girls' learning task is more adaptive than boys'. Omwirhiren and Anderson (2016) pointed out that there is a statistically significant difference between male and female academic achievement in chemistry. They concluded that boys perform better than girls. Farooq and Berhanu (2011), on the other hand, found that girls generally perform better than male students. Similarly, Nnamani and Oyibe (2016) and Jayanth et al. (2014) found that gender has a significant impact on school performance. Maric and Sakac (2014) also observed that girls perform better in school than boys. Dev (2016) also noted that girls outperform boys in academic performance. The same result was found by Nnamani and Oyibe (2016). They found that women do better than men in social studies. Boys perform better than girls in mathematics, English and aptitude (Eshetu, 2014). Manoah et al. (2011) also argued that gender does not have a statistically significant effect on performance in mathematics. Adigun, Onihunwa, Irunokhai, Sada, and Adesina (2015) also found that there is no statistical difference, but concluded that boys perform better than girls.



A study conducted in Nigeria to assess gender difference in academic performance of students in Economics subject at the Secondary school level revealed that, in 2006/2007 Senior Secondary School Certificate Examination (SSCE), there was no statistical difference in the academic performance of boys and girls in Economics but from 2008 to 2010 there was statistical difference.

It was concluded that males generally performed better than females in Economics (Amuda, Ali, Durkwa, 2016). The impact of gender on academic performance still remains inconclusive. Using Aptitude Test as a measure for academic performance in Kashim Ibrahim College of Education in Nigeria, Goni (2015) noticed that there is no statistical difference between gender and academic performance. Wangu (2014), found other wise and reported that females perform better in languages while males perform better than females in the sciences.

Several studies report significant differences in levels of self-efficacy between genders. Mahyuddin et al. (2006) conducted research into the relationship between students' self-efficacy and their performance in the English language. In this study, one of the variables examined is gender. From descriptive correlation conducted on 1,146 students from eight secondary schools in Petaling District, Selangor, they found that girls were more likely to have higher self-efficacy than boys. It was shown that there is a statistically significant connection between the sexes with a p-value of 0.006. Tenaw (2013), also found that there is significant difference in their self-efficacy between sexes. This find result from calculating using Pearson correlation. However, Shikullaku (2013) in his study, The relationship between self-efficacy and academic performance in the context of gender among Albanian students

consisted of 180 students, 78 males (43%) and 102 females (57%) with participants' ages ranging from 19 to 31 years, found that there are no more significant Difference in self-efficacy between men and women. In addition, Abd-Elmoteleb and Saha (2013) showed in their study that self-efficacy is negatively significantly correlated with gender. What was worrying in the study was the connection between perceived school and the mediating influence of school self-efficacy on the climate and school performance of students.

“Zheng et al (2009) studied the relationship between academic self-efficacy and academic performance and reported that although the female student scores obtained were higher than the male student scores, they are not a significant differentiation and concluded that self-efficacy in both male and female students was an effective academic performance predictor. Huerta et al (2017), studies the themes that students identified as casting a positive or negative impact on their academic self-efficacy and concludes that gender and demographic differences have their effect on self-efficacy of the students. Furthermore, the relationship between gender and self-efficacy also influences the academic performance” (Tømte, Hatlevik, 2011). Through the previous study, that boys and men tend to be more confident than girls and women in academic areas related to mathematics, science, and technology despite the fact that achievement differences in these areas either are diminishing or have disappeared. Conversely, in areas related to language arts, male and female students exhibit similar confidence despite the fact that the achievement of girls typically is higher (Yaz, Seyisa, Altuna, 2011). Moreover, academic variables, such as study hours, study skills, and absenteeism, were the only statistically significant contributors to performance (Witt-Rose, 2003).

Researchers have extensively studied gender differences in academic self-efficacy, but findings have been inconsistent. For instance, Pastorelli et al. (2001) found that women exhibited higher academic self-efficacy than males, whereas, Huang (2013) found that men exhibited an overall higher self-efficacy than females. However, gender differences in academic self-efficacy tends to be subject-specific (Huang, 2013), with males exhibiting higher self-efficacy in Science, Technology, Engineering, and Mathematics (STEM), and females having higher self-efficacy in language arts” (Khemka, 2014).

“Dever and Kim (2016) suggested that gender differences in academic self-efficacy might extend beyond K-12 education, yet researchers tend to target the younger population. MacPhee, Farro, and Canetto (2013) conducted a longitudinal study that examined academic self-efficacy of female minorities from low economic status enrolled in a STEM program. Findings of the study suggested that women had lower academic self-efficacy than men prior to the STEM program but their academic self-efficacy were equivalent by the time of graduation (MacPhee, Farro, & Canetto, 2013). These findings suggest that mediating programs, such as mentoring, could close the gender gap of academic self-efficacy. It is however important to note that although MacPhee, Farro, and Canetto’s (2013) indicated gender differences in academic self-efficacy among the adult population, results could have been skewed because of the lack of confidence instilled in minority women from lower social status and the societal expectations that males perform better in STEM programs. Studies including females from varying backgrounds and academic disciplines could yield different outcomes.



Individual differences such as gender can also affect global self-efficacy and perceptions of Self-efficacy in specific domains. In the academic domain for instance, research conducted primarily in the United States has suggested that gender variations exist in students' academic self-efficacy regarding certain school subjects, such as science, language arts, or math (Britner & Parajes, 2006; Singh, & Bussey, 2011; Else-Quest, Hyde, & Linn, 2010; Usher & Parajes, 2008). Similarly, gender differences in self-esteem among older youth have been reported by a few studies conducted in sub-Saharan Africa (Atindanbila, Winifred, & Awuah-Peasah, 2012; Imhonde, 2014). Gender roles might account for gender differences in academic self-efficacy (Kling, Hyde, Showers & Buswell, 1999; Nunn & Thomas, 1999). Such differences are particularly possible in non-Western contexts where many families socialize their children by assigning boys to leadership roles that are more likely to build their confidence, whereas they assign girls to domestic roles such as completing household chores.”

#### **Relationship between academic self-efficacy and academic performance.**

Among the various theories that attempt to explain the processes that drive and regulate behaviour, Social Cognitive Theory (Bandura, 1977) is undoubtedly one of the most prominent. Social Cognitive Theory posits that a combination of external social systems and internal self-influence factors motivate and regulate behaviour (Bandura, 2012; Schunk & Parajes, 2002). Of these self-influence factors, self-efficacy (SE) is a major component and refers to an individual's judgment of their capabilities to organize and execute courses of action required to achieve desired performances (Bandura, 2006). The influence of self-efficacy has been studied across a range of psychological

disciplines, in areas such as smoking cessation, dietary behaviour change, addiction relapse (Conner & Norman, 2005; Povey, Conner, Sparks, James, & Shepherd, 2000), work-related behaviour (Stajkovic & Luthans, 1998), sporting skill and performance (Owen & Froman, 1988), and academic performance (Pintrich & DeGroot, 1990; Robbins, Lauver, Le, Davis, & Langley, 2004).

“Within an academic context, SE is frequently described in terms of Academic Self-Efficacy (ASE), which defines learner judgments about one’s ability to successfully attain educational goals” (Elias & MacDonald, 2007). A wealth of literature exists that highlights the importance of ASE for learning and subsequent academic performance. This relationship has been studied in a range of learning environments, including early years (Joët, Usher, & Bressoux, 2011), high school (Alivernini & Lucidi, 2011), and university populations (Robbins et al., 2004). “Additionally, research has investigated the influence of ASE on academic performance across varying degrees of specificity, such as self-efficacy for successfully completing subject-specific tasks like algebra or geometry problems (Zimmerman & Martinez-Pons, 1990), self-efficacy for successful performance and attainment of a specific grade in a subject” (Neuville, Frenay, & Bourgeois, 2007), and self-efficacy for general success within a university course (Cassidy & Eachus, 2002). Despite the educational setting in which it is measured, ASE has consistently been shown to positively correlate with academic performance, with meta-analytic studies reporting moderate effect sizes (Richardson, Bond, & Abraham, 2012; Robbins et al., 2004). A sufficient body of research also supports this fact. Further, various researchers prove the fact that there is positive correlation

between general self-efficacy and academic achievements (McCoach et al., 2014; Kurbanoglu et al., 2018).

Findings from the meta-analysis conducted by Richardson et al. (2012) suggest that ASE beliefs account for up to 9% of the variance in the overall Grade Point Average (GPA) of university students, however, significant heterogeneity in effect size was also reported across studies.” “In light of these and similar findings, research has focused on investigating those factors that may mediate the relationship between ASE and performance, and uncover moderator variables that may account for the range of variability across studies.”

“To date, many previous studies have reported that a learner’s ASE is strongly associated with academic performance (Robbins et al., 2004; Richardson et al., 2012; Honicke and Broadbent, 2016). The results have consistently revealed that higher scores of ASE are more likely to result in higher levels of academic performance. Furthermore, Robbins et al. (2004) demonstrated that achievement motivation affects academic performance. Richardson et al. (2012) found that grade goals and effort regulation are strong factors in academic performance, similar to ASE. Honicke and Broadbent (2016) noted that effort regulation, deep processing strategies, and goal orientation have moderated the relationship between ASE and academic performance. As noted, goal-related aspects, that is, grade goals and goal orientation, and effort regulation have been found by two of three meta-analyses to be the strongest factors that influence academic performance other than ASE.



Furthermore, although only a dearth of longitudinal studies has been conducted on the relationship between ASE and academic performance, the most recent meta-analysis has revealed that a higher ASE enhances academic performance longitudinally and vice versa (Talsma et al., 2018). In contrast, some of the studies have revealed no significant relationship between ASE and academic performance (e.g., Crippen et al., 2009; Cho and Shen, 2013; Geþka, 2014). Operationalization of ASE, timing of measurement, and cultural differences have been proposed as reasons (Honicke & Broadbent, 2016). Currently, it has been assumed that ASE is one of the most important factors or predictors for learners to achieve learning success. This may mean that if a student's ASE is enhanced, the student may be able to achieve higher academic results.

### **Summary**

In general, Bandura provided a view of human behaviour in which the beliefs that people have about themselves are key elements in the exercise of control and personal agency and in which individuals are viewed both as products and as producers of their own environments and of their social systems. Self-efficacy information that arises from these four sources does not influence self-efficacy directly, for it is cognitively appraised (Bandura, 1986). It is important to restate that these sources of efficacy information are not directly translated into judgments of competence. Individuals interpret the results of events, and these interpretations provide the information on which judgments are based. The types of information people attend to and use to make efficacy judgments, and the rules they employ for weighting and integrating them, form

the basis for such interpretations. Thus, the selection, integration, interpretation, and recollection of information influence judgments of self-efficacy.

In many schools, students struggle because their basic needs in Maslow's hierarchy of needs are not being met. These students are typically students of low socioeconomic status. Because students with low socioeconomic status do not learn at the same pace as their peers, they are often mislabelled as having learning disabilities. Often, however, these students simply do not meet the lower levels of Maslow's hierarchy of needs (Faye, 1995). Many of these students may be too concerned about what time their next meal will be or where they will sleep that night to even care about what they are learning in school. It is important to separate genuine learning difficulties from students who only need to meet their basic needs in life in order to learn. By separating these two populations, student learning needs can be more easily met by the district or teacher.

With regard to students' academic performance, the influence of gender on academic performance is not clear; while some researchers have found a statistical significance difference, others found no significance difference. In assessing the performance of boys and girls, it has been revealed that it depends on the subject but it has been established that they have different cognitive level. If a student can perform a duty assigned to them without being overwhelmed, it might also mean that their academic motivation is also high. Students with lower levels of motivation may have difficulties in completing a difficult academic assignment, as a result their academic self-efficacy weakens (Bandura, 1993).

Given the well-documented gender differences in beliefs, attitudes, and behaviour expected of Ghanaian youth, a critical question for this study was whether the same instrument might be equally effective in assessing the academic self-efficacy of young Ghanaian boys and girls.





## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

In this chapter, what are discussed are the research methods and they include the research design, population, sample and sampling techniques and instrumentation. It also describes the data sources including the methods of data collection, ethical concerns and data handling procedures.”

#### Research Design

“A research design is defined as a plan or the way in which research is to be carried out (Mouton,2001). This includes guidelines for carrying out any investigation. The design also calls for the compilation and analysis of data related to a particular project.”

“The descriptive survey design was used for this analysis. According to Salaria (2012), descriptive design is a research design, that seeks to find factors, outcomes, conditions or types of behaviour. In addition, Osuala (2001) noted that the descriptive survey is versatile and practical in identifying existing needs. He also reports that in assessing the situation as a condition for completion and generalisation, the descriptive research is fundamental to all types of research. Furthermore, Kothari (2010) states that the descriptive design is used when one wants to describe the issues that happen in society including structures and societal circumstances.

In order to determine the relation between the variables and to ask questions and to explain items that are not clear, the descriptive survey as a scientific instrument and, given the population, allows the researcher to generalise on the basis of the representative sample chosen. Not only is

descriptive survey objective, it also observes, describes and documents aspect of a situation as it occurs naturally.

The design was seen as appropriate for the study because:

a. The nature of the topic requires that data is collected through self-report measures and

b. “Large amounts of data can be collected within a short period of time.”

“This design helped to collect data by asking respondents questions about self-efficacy level of students in the senior high schools. The main difficulty with the design, however, was demand characteristics, as respondents try to give responses in ways that reflect their idea of what responses the researcher wants from them. Despite the inherent disadvantage, it was deemed the most appropriate design for the study. This study is descriptive in nature because it was carried out to assess the influence of academic self-efficacy on academic performance of students. It simply specifies the nature of the given phenomena with a description of the situation using a specified population. Stick to one tense. The descriptive survey research design was further deemed appropriate for this study as the researcher wanted to find out the feelings and opinions of students in relation to their academic self-efficacy levels.

### Study Area

Sekondi–Takoradi metropolis is an area that includes Sekondi and Takoradi twin cities. It is the capital of the Metropolitan Assembly of Sekondi–Takoradi and the western part of Ghana. Sekondi-Takoradi, with a population of 445,205 (Ghana. Statistical Service, 2014), is the largest city in the region and an industrial and business centre. Sekondi-Takoradi has a number of senior

high schools, colleges and special schools, ranging from single-sex institutions to coeducational ones. Takoradi Technical University, Nurses and Midwifery Training College, the Holy Child College of Education are among the tertiary institutions. These include: St. John’s School, St. John’s School, Sekondi, Ghana Senior High Technical School (GSTS), Takoradi Secondary School (Tadisco), Bompheh Senior High Technical School (BSTS), Sekondi College (Sekco), Ahantaman Senior High School, Fijai Secondary School, Adiembra Secondary School, Archbishop Porter Girls Secondary School etc.

**Population**

“Bryman (2006) describes a population as any number of individuals or subjects who have at least one common feature. The population of the study (see Table 1) consisted of all public Senior High School students in the Sekondi-Takoradi Metropolis with population of 24,638 students” (GES, Sekondi-Takoradi Metropolis, 2018).

Table 1: *Takoradi-Sekondi Metro 2018 Enrolment Data of Pubic Senior High Schools*

SN	Name Of School	SHS 1		SHS 2		SHS 3		GRAND TOTAL	
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1	Adiembra SHS	334	484	303	399	355	649	992	1532
2	Ahantaman Girls' SHS	0	614	0	744	0	769	0	2127
3	Archbishop Porter Girls SHS	0	627	0	709	0	650	0	1986
4	Bompheh SHS	297	322	231	278	265	223	793	823
5	Diabene SHS	205	338	107	125	118	201	430	664
6	Fijai SHS	232	357	403	392	322	406	957	1155
7	G.S.T.S	619	0	670	0	721	0	2010	0



8	Methodist Day SHS	175	351	96	211	123	274	394	836
9	Sekondi College	435	549	363	612	338	437	1136	1598
10	St John School	695	0	701	0	644	0	2040	0
11	Takoradi SHS	283	343	207	423	210	360	700	1126
12	Takoradi Tech. Inst.	969	128	1169	71	951	51	3089	250
<b>TOTAL</b>		<b>4,244</b>	<b>4,113</b>	<b>4,250</b>	<b>3,964</b>	<b>4,047</b>	<b>4,020</b>	<b>12,541</b>	<b>12,097</b>

Source: GES, Sekondi-Takoradi Metropolis, (2018)

“The target population was made up of all the eight mixed public Senior High Schools in the Sekondi-Takoradi Metropolis. The accessible population (see Table 2) was made up of five mixed public form two Senior High Schools in the Sekondi-Takoradi Metropolis. These schools are: Adiembra SHS, Diabene SHTS, Sekondi College, Sekondi-Takoradi SHS and Sekondi-Takoradi Tech. Inst.” (GES; Sekondi-Takoradi Metropolis, 2017). The mixed senior high schools were selected because one of the objectives of the present is to find out gender differences in academic self-efficacy. Hence, if only single sex schools are selected, this may be difficult to ascertain. Also, most of the schools in this metropolis are mixed schools. Furthermore, form two students were selected because students in form just entered the schools and may now be adapting to the surrounding of the school. Also, students in form three are about to leave the school and as such most of them may not present at the time of data collection. However, form two students are in the have already adapted to the changes in the school and will be in right frame of mind to respond to such items.

Table 2: *Population Distribution based on School and Gender*

SN	NAME OF SCHOOL	SHS 2		GRAND TOTAL
		Boys	Girls	Total
1	ADIEMBRA SHS	303	399	702
2	DIABENE SHTS	107	125	232
3	SEKONDI COLLEGE	363	612	975
4	SEKONDI-TAKORADI SHS	207	423	630
5	SEKONDI-TAKORADI TECH. INST.	1169	71	1240
<b>TOTAL</b>		<b>2149</b>	<b>1630</b>	<b>3779</b>

Source: GES, Sekondi-Takoradi Metropolis, (2019)

### Sampling Procedures

“The segment of the population selected for study was identified as a sample as defined by Ofori and Dampson (2011). A sample is a population representative. A sample thus represents the number of cases from the population which the researcher draws with the aim of generalizing the study results to the population from which they have been extracted from.”

For selecting participants for the study, multi-stage sample technique was used. Multi-stage sampling applies to survey strategies, with the use of smaller and smaller samples at all stages of the sampling (Burns & Grove cited in Byrne, 2001). The theory of cluster sampling is further developed into multi-stage sampling (Kothari 2004). At the first stage, I employed purposive sampling to select mixed public Senior High Schools in the Sekondi-Takoradi Metropolis. Purposive sampling was used because I was interested in mixed public senior high schools in the Municipality. However, at the second stage simple random sampling was used to select five mixed schools. Moreover, at the third stage, to get an equivalent proportion of student participants from

the schools, I used the Babbie's formula (Babbie cited in Rubin, & Babbie, 2008) to determine the sample for each school and systematic random sampling was used finally to draw participants.

Krejcie and Morgan sample size determinant table was used in determining the sample size for the study. According to Krejcie and Morgan (1970), with the accessible population of 3,779 a sample size of 350 is a fair representative of the sample. There were three forms of classes within each school but the form two classes in the various five schools was used for the study. The reason being that the form one students were now getting acquainted with the school climate and the form three students were preparing for their final examinations hence the likelihood of getting them to attend to the instrument was difficult.”

“To get an equivalent proportion of student participants from the schools, Babbie's (2001) formula was used to determine the sample for each school.” The formula is  $s = \frac{n}{N} \times k$

Where (s) stands for the sample to be selected from a school;

(n) stands for the entire population of the school;

N stands for the size of the accessible population (3,779); and

K stands for the sample size (350).

Hence, for instance, Adiembra form two Senior High School whose student population was given as 702 students, applying the Babbie's (2001) formula, gave the outcome shown below:

$$s = \frac{n}{N} \times k$$



$$\frac{702}{3,779} \times 350$$

= 65 (approximately)

To obtain the proportionate sample size for each school, the entire population for each school was divided by the total number of the accessible population (3,779) and was multiplied by the sample size needed (350) (see Table 3).

Table 3: *Sample size obtained from each school*

Sn	Name of School	From 2 Total
1	Adiembra SHS	65
2	Diabene SHTS	22
3	Sekondi College	90
4	Sekondi-Takoradi SHS	58
5	Sekondi-Takoradi Tech. Inst.	115
TOTAL		350

Source: Field Data, (2019)

For gender representative, each form 2 class was arranged according to their gender and then systematic random sampling procedure was used in the administering of the questionnaire.

### Data Collection Instruments

Instrumentation refers to the development of tools or instruments for gathering data from the field. Some of these include questionnaires, interview schedule, etc. The questionnaire was an adopted instrument of Gafoor and Ashraf (2007) Academic Self-Efficacy of 40 items (20 positive and 20 negative items) with 60 constructed objective test questions of the SHS core subjects; Mathematics, Science, English and Social Studies. The Academic Self-

Efficacy has test-retest coefficient of correlation of .85 (N=30); Split half reliability of .90 (N=370) [Gafoor and Ashraf, 2006]. Content validity of the instrument was assured through the expert judgments of the face validity and inclusion of representative items from all dimensions of the construct (Learning process, Reading, Comprehension, Memory, Curricular Activities, Time Management, Teacher Student relationship, Peer Relationship, Utilization of resources, Goal Orientation, Adjustment and Examination).

“The questionnaire comprised section A which elicited demographic data of the students, section B was made up of 40 items to elicit information on students’ level of academic self-efficacy. Section C was made up of 80 constructed objective test items of the four core subjects” (20 each for Mathematics, English, Science and Social Studies).

### **Reliability**

Reliability is based on the consistency or stability of the scores that one gets from a test or assessment procedure (Nitko, 1996). The instrument was pilot-tested in Fijai senior high school. In establishing the reliability of the section B, which was made up of 40 items to elicit information on students’ level of academic self-efficacy on the questionnaire, Cronbach’s alpha internal consistency method was used. Expert judgement was made by my supervisors on the items of the Section C of the instrument. This was to ensure external consistency of the test. Table 4 shows the results of the pre-test of the section B of the instrument in both schools.

Table 4: *Pilot-test results for the instrument*

Scale	No. of items	Mean	SD	Cronbach’s Alpha
Academic Self-efficacy (Section B)	40	7189.91	22124.029	.930

Source: Field Data, (2020)

### **Ethical Consideration**

Research ethics refers to the correct behavioural rules needed in conducting research. It outlines the need for participants to understand the objectives, targets and potential damage to them (Seidman, 2006). The ethics also states that, even after consent has been granted, participants have a right to withdraw. Cohen, Manion, and Morrison (2002), stated that informed consent stems from the right of liberty of a participant. The moral responsibility of researchers is to protect participants from harm. The researcher is primarily responsible for performing ethical research. Researchers have a responsibility to ensure that research participants do not suffer from a detrimental impact on their physical, social and psychological wellbeing. Whenever possible, mutual respect and trust should mark research relationships. In this study, each group of participants examined the purpose of the studies carefully before participating in the research.”

Punch (2008) believes that researchers should pay particular attention to ethical issues in social research as the data about people is involved. Consideration for moral issues and respect for participants is essential in social research. Hence, in this research, several ethical issues were taken into consideration. The research addressed all ethical concerns which include informed consent, anonymity and confidentiality.

The researcher obtained an informed verbal consent from the students before commencement. The participants were made aware that their participation was voluntary, and that they were free to decline or accept or decline to engage in the research. Anonymity of participants was highly taken



into consideration in the study. Oliver (2010), noted that the concern of anonymity in research ethics is vital because it allows the participants to mask their identity. Names nor any identifiable information from participants were not taken as a way of ensuring the ethical principle of anonymity. This was to prevent possible victimization of respondents where certain responses may be

viewed as revolting to other stakeholders.”

“On the issue of confidentiality, efforts were made to maintain confidentiality of the responses of the participants. Participants were told that their responses would be kept confidential and that no one known to them would have access to the information provided and none of the respondents names were recorded in the study.

Most importantly on the ethical issues of the study, pieces of information that were cited from earlier studies were duly acknowledged through both citation and referencing in order to avoid academic dishonesty otherwise known as plagiarism.”

#### **Data Collection Procedure**

Data collected was processed using the Statistical Product and Services Solution (SPSS) version 22 software. Data was collected from selected students. The researcher encouraged and urged students to provide honest responses since the study was for academic purposes and will also be useful to the school and learners in the near future. In the quest to obtain data from the various schools, a letter of introduction from the Head of Department of Education and Psychology in the University of Cape Coast was obtained in order to solicit the assistance of the Headmasters/Headmistresses and various class teacher for effective data collection process. Ethical clearance letter was obtained from the

Institutional Review Board of the University of Cape Coast to be able to carry out the study.

### **Data Processing and Analysis**

Analysis of data provided facts and figures that would enable me to interpret results and make statements about the findings of the study. The data was collated, and edited in order to address questions that have been answered partially or not answered. For effective statistical presentation and analysis, the questionnaire instruments were serially numbered to facilitate easy identification. It is necessary to observe this precaution to ensure quick detection of errors when they occur in the tabulation of the data. All items of the questionnaires were coded. Items in the form of five-point Likert scale were rated between 5-1, with 5 being the highest and 1 being the lowest.

“Percentages and frequencies were used to analyse the background information of the participants. The background information consisted age and gender of the students. Means and standard deviations were used to answer research question one and two. Correlation was used to test hypothesis one and independent t-test to test for hypothesis two.

### **Summary of the Chapter**

“The descriptive design was employed for the study. Form two students within five selected senior high school formed the population for the study. Multi-stage technique was adopted and questionnaire and was used to gather data from participants. On the collection of data, a clearance letter was obtained from the Institutional Review Board (IRB) to enable the researcher to obtain permission from the Headmasters and teachers to collect data from the students.

SPSS version 22 was used to analyse the data. The next chapter which is chapter four deals with the presentation and discussion of the data obtained.





## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

The purpose of this study was to find out the influence of academic self-efficacy on academic performance of students in the public senior high schools in Sekondi – Takoradi. Thus, the study analysed and discussed the results under the various sections. The analysis and discussion were based on the research questions that were raised to guide the study. The analysis and interpretation of data were carried out based on the results of the research questions and hypotheses established for the study. The analysis was based on the 87% return rate of data obtained from the 350 students of the five senior high schools in the Sekondi-Takoradi metropolis. The data were analysed using descriptive statistics (means, standard deviations, frequencies and percentages) and inferential statistics (Pearson Moment Correlation and Independent samples t-test). The first part of this chapter was designated for the demographic characteristics of the students which were analysed using frequency counts and percentages. In the second part, the research findings are presented based on the research questions and hypotheses formulated for the study.

#### Demographic Information of students

This section recounts to the background information of students who responded to the questionnaires. Demographic variables for the students included sex and age. The data were analysed using frequencies and percentages to indicate how the demographic data represented the students in the Sekondi-Takoradi Metropolitan.

Table 5: *Distribution of students by Sex*

The researcher was interested in finding out the sex distribution. The statistics in Table 5 depict the results

Sex	Freq.	Per. (%)
Male	156	51.3
Female	148	48.7
Total	304	100.0

Source: Field data (2020)

From Table 5, 156(51.3%) out of the 304 student participants were recorded to be males and 148 (48.7%) being females.

Table 6: *Distribution of students by Age*

The age distribution of the participants was also estimated.

Age	Freq.	Per. (%)
13-15 years	23	7.5
16-19 years	247	81.3
20 years and above	34	11.2
Total	304	100.0

Source: Field data (2020)

Table 6 shows that 247 (81.3) of the student participants were between the ages of 16-19, 34(11.2%) being the second highest of student participants are between 20years and above, and 23(7.5%) were between 13-15 years.

**Research Question One**

**What is the level of academic self-efficacy of senior high school students in Sekondi-Takoradi Municipality?**

In answering research question one, which tried to find out the level of academic self-efficacy, the student participants were asked to rate Likert-type scale items as applied to them. Median split was used to determine students who were above the group median, hence had high level of academic self-efficacy and those below the group median score were reported to have low academic self-efficacy. Table 7 presents the results.

Table 7: *Students' level of Academic Self-Efficacy (ASE)*

Level of ASE	Freq.	Per. (%)
High	154	50.7
Low	150	49.3
Total	304	100.0

Source: Field data (2020)

From the Table 7, it was realised that 154(50.7%) of the participants had a high level of academic self-efficacy and 150(49.3%) of the student participants recorded a low level of academic self-efficacy.

**Research Question Two**

**What are the factors that influence students' academic self-efficacy in the Sekondi-Takoradi Municipality?**

The researcher assessed the factors or dimensions that influence students' academic self-efficacy. To derive evidence for this, students rated



items which were put into 12 dimensions (the 12 dimensions sum up the student’s academic self-efficacy) using five- point, Likert type scale.

The five-point Likert scale type were dubbed as: “Exactly true”, “Nearly true”, “Neutral”, “Nearly false” and “Exactly false” was used in scoring factors or dimensions that influence students’ academic self-efficacy. To understand the mean scores of the results, a criterion value (CV=3.00) was obtained, the scores were added together and divided by the number scale ( $5+4+3+2+1=15/5=3.00$ ). THUS, a mean of 0.00 to 2.99 was regarded as low and those factors/dimensions that scored a mean from 3.00 to 6.00 were regarded as high. Table 8 presents the results.

Table 8: *Factors or dimensions that influence students’ Academic Self-Efficacy (ASE)*

The statistics in table 8 provide information on the factors that influence students’ academic self-efficacy. In doing this, means and standard deviations were used.

Factors/Dimensions of Academic Self- efficacy (ASE)	M	SD	MR
Learning Process	4.33	.688	1 <sup>st</sup>
Peer Relationship	4.21	.909	2 <sup>nd</sup>
Comprehension	3.97	.906	3 <sup>rd</sup>
Examination	3.85	.673	4 <sup>th</sup>
Reading	3.82	.979	5 <sup>th</sup>
Goal Orientation	3.81	.993	6 <sup>th</sup>
Memory	3.62	.813	7 <sup>th</sup>
Teacher Student Relationship	3.61	.973	8 <sup>th</sup>

Curricular Activities	3.57	.765	9 <sup>th</sup>
Adjustment	3.51	.683	10 <sup>th</sup>
Utilization of Resources	3.38	.925	11 <sup>th</sup>
Time Management	3.15	1.101	12 <sup>th</sup>
Mean of means/Standard Deviation	3.69	.550	

Source: Field data (2020)

The results from Table 8 show that generally, all of the factors or dimensions of academic self-efficacy influence students' academic self-efficacy in the Sekondi-Takoradi metropolis, since the calculated mean of means were greater than the test value of 3.00 ( $MM=3.69$ ,  $SD=0.550$ ). Some of the factors that scored higher means include students' learning process ( $M=4.33$ ,  $SD=.688$ ), peer relationship ( $M=4.21$ ,  $SD=.909$ ), comprehension ( $M=3.97$ ,  $SD=.906$ ) and examination ( $M=3.85$ ,  $SD=.673$ ). In the table, Utilization of Resources ( $M=3.38$ ,  $SD=.925$ ) and Time Management ( $M=3.15$ ,  $SD=1.101$ ) were ranked least among the factors but with means higher than the test value.

**Research Hypothesis One:**

**There is statistically significant relationship between students' Academic Self-Efficacy (ASE) and students' Academic Performance.**

One of the objectives of the study was to determine the relationship between students' academic self-efficacy (ASE) and academic performance of students of the Sekondi-Takoradi Metropolis. To achieve this, Pearson Product Moment Correlation was used to test the stated hypothesis. The Pearson Product Moment Correlation was utilised because it appropriately helped to determine whether there is a statistically significant relationship between students' academic self-efficacy (ASE) and academic performance. The dependent

variable here was students' academic performance and the independent variable was academic self-efficacy. The results are presented in Table 9.

Table 9: *Relationship between students' Academic Self-Efficacy (ASE) and students' Academic Performance*

<i>Pearson Correlation</i>	r	r <sup>2</sup>	Asymp. Sig. (2-sided)
Self-efficacy	.364	0.132	.000
Academic performance			
N of Valid Cases	304		

Source: Field Data, (2020), *Correlation is significant at the 0.01 level (2-tailed).*

The results in Table 9 reveals that there is a statistically significant relationship between academic self-efficacy and academic performance among students of the Sekondi-Takoradi metropolis ( $r(304) = .364, p < .01$ ). Hence, the null hypothesis was rejected. The results showed a weak positive relationship between academic self-efficacy and academic performance among students of the Sekondi-Takoradi Metropolis. From the results obtained in Table 9, it can be concluded from the coefficient of determination ( $r^2=0.132$ ) that students' academic self-efficacy explains 13% of the variation in the scores of students' performance.

**Research Hypothesis Two:**

**There is no statistically significant difference in student's academic self-efficacy level on the basis of gender.**

The researcher sought to examine the difference between the academic self-efficacy level of male and female students. To test the hypothesis associated with this, independent samples t-test was used. Independent samples t-test was utilised in the analysis based on the assumption that independent samples t-test



determines whether there is a statistically significant difference between the means in two unrelated groups. The dependent variable here was academic self-efficacy and the independent variable is gender (male and female). The results are presented in Table10.

Table 9: Results of independent t-test Comparing differences in academic self-efficacy level of male and female students.

Variable	N	M	SD	Cal.t-value	Df	p-value
Male	156	3.70	.602	.227	295.57	.820
Female	148	3.68	.492			
Total	304					

Source: Field Data, (2020), Computed using alpha value of =0.05 (p=0.05 level of confidence)

Table 10 shows the independent samples t-test results that compare differences in academic self-efficacy of male and female among students of the Sekondi-Takoradi Metropolis. As illustrated in the table 10, the descriptive results (means and standard deviation) show that the male ( $M=3.70$ ,  $SD=.602$ ,  $n=156$ ) experience more academic self-efficacy than their female counterparts, ( $M=3.68$ ,  $SD=.492$ ,  $n=148$ ). Complementing the results with *t-test* and *p-values*, the results show that the mean differences, had no statistical significant difference between male and female students with respect to their academic self-efficacy ( $t(df=295.57) = .227$ ,  $p = .820$ ,  $p > 0.05$ ,  $n=304$ , 2-tailed). Hence, the researcher failed to reject the null hypothesis.

**Discussion**

**Level of academic self-efficacy of senior high school students in Sekondi-Takoradi Municipality**

The results from the present study showed that most students out of the sampled population had high level of self-efficacy in the Sekondi-Takoradi Metropolis. Theoretically, the results can be grounded on the social cognitive theory, which focuses judgment of one's capabilities to learn or master new knowledge and skills, organize and execute them to attain designated academic

performance levels" (Bandura, 1977). "Presently, most students strive to learn or master knowledge so that they can continue in the constantly changing trend of the educational system. The theory also highlights the fact that individuals wants to possess a self-system that will enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions" (Bandura, 1977).

"Empirically, the results are in line with the assertion of Toharudin, Rahmat and Kurniawan (2019), that many students possess self-regulation and high level of academic self-efficacy. On the contrary to the findings of this study, Simonsen and Rundmo (2020), found that school identification was found to be more important for the students' school satisfaction than self-efficacy. From the empirical reviews, it was found that different environmental settings coupled with other factors determine the prevalence of academic self-efficacy among students."

### **Factors that influence students' academic self-efficacy in the Sekondi-Takoradi Municipality**

The findings of this study can be grounded on the theory of Maslow's hierarchy of needs. For there are a number of needs/factors that influence the student's capabilities to learn or master new knowledge and skills, organise and execute them to attain designated academic performance levels. Inferring from the theory, most students of poor socio-economic background may lack some

basic needs that could help them attain academic self-efficacy and also improve their academic performance. In support of the findings, Bandura (1977), also alluded that self-efficacy might be determined by environmental, personal, psychological, economic and social factor that might surround an individual from time to time. Bandura (1977), and early research evidence shows that there are factors that influence academic self-efficacy, namely; mastery experience, vicarious experience, verbal persuasion and psychology arousal.

“From the review of literature, Van Dinther, Dochy and Segers (2011) and Zhu, Chen, Chen and Chern (2011), found that educational programmes have the possibility to enhance students’ self-efficacy, and that educational programmes based on social cognitive theory proved to be particularly successful. According to them, several factors (learning process, memory, curricular activities, time management, teacher student relationship, peer relationship, utilization of resources, goal orientation, adjustment etc.) rooted in Bandura (1977), suggested four categories of experience: mastery experience, vicarious experience, verbal persuasion, and physiological arousal, appeared to influence students’ self-efficacy.”

### **Relationship between students’ Academic Self-Efficacy (ASE) and students’ Academic Performance**

With the issue of the relationship between academic self-efficacy and student academic performance, the findings of this study were supported by a large number of studies. Richardson, Bond, and Abraham (2012) and Robbins et al., (2004) found that despite the educational setting in which self-efficacy is measured, Academic Self-Efficacy (ASE) has consistently been shown to positively correlate with academic performance. Findings from the meta-



analysis conducted by Richardson et al. (2012), similarly showed that ASE account for up to 9% of the variance in the overall Grade Point Average (GPA) of university students. Various researchers prove the fact that there is positive correlation between general self-efficacy and academic achievements (Mccoach et al., 2014; Kurbanoglu et al., 2018, Talsma et al., 2018). To date, many previous studies have reported that a learner's Academic Self-Efficacy (ASE) is strongly associated with academic performance" (e.g. Robbins et al., 2004; Richardson et al., 2012; Honicke and Broadbent, 2016).

"In contrast to the findings of this study, some studies have revealed no significant relationship between ASE and academic performance (e.g., Crippen et al., 2009; Cho and Shen, 2013; Gębka, 2014).

#### **Difference in student's academic self-efficacy level on the basis of gender**

"In support of the findings of this study, Zheng et al (2009) studied the relationship between academic self-efficacy and academic performance. They reported that although the female student scores obtained were higher than the male student scores, there was no significant differentiation and concluded that self-efficacy in both male and female students was an effective academic performance predictor. Researchers have extensively studied gender differences in academic self-efficacy, but findings have been inconsistent. For instance, Pastorelli et al. (2001) found that women exhibited higher academic self-efficacy than males, whereas, Huang (2013) found than men exhibited an overall higher self-efficacy than females. However, gender differences in academic self-efficacy tends to be subject-specific (Huang, 2013), with males exhibiting higher self-efficacy in Science, Technology, Engineering, and

Mathematics (STEM), and females having higher self-efficacy in language arts (Khemka, 2014).

Dever and Kim (2016) suggested that gender differences in academic self-efficacy might extend beyond K-12 education (i.e. beyond kindergarten through to the senior high in the Ghanaian educational context), yet researchers tend to target the younger population. MacPhee, Farro, and Canetto (2013), conducted a longitudinal study that examined academic self-efficacy of female minorities from low economic status enrolled in a STEM program. Findings of the study suggested that women had lower academic self-efficacy than men prior to the STEM program but their academic self-efficacy were equivalent by the time of graduation (MacPhee, Farro, & Canetto, 2013). These findings suggest that mediating programs, such as mentoring, could close the gender gap of academic self-efficacy.”

#### **Summary of the Chapter**

“The chapter analysed and discussed the results of the study. The demographic data were analysed descriptively. Frequencies and percentages were specifically used to present the demographic characteristics of participants. The descriptive and inferential statistics were used to analyse the research questions and hypotheses, respectively.”

The findings revealed that most students have high level of academic self-efficacy. Also, several factors such as students’ learning process, memory, curricular activities, time management, teacher student relationship, peer relationship, utilisation of resources, goal orientation, and adjustment, rooted in mastery experience, vicarious experience, verbal persuasion, and physiological arousal, appeared to influence students’ self-efficacy. Hypothesis one showed a

positive relationship between academic self-efficacy and student performance/test achievement. Lastly, hypothesis two revealed no statistical difference between the means of females and males with respect to their academic self-efficacy. As a result the null hypothesis was retained.





## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This chapter presents a summary of the findings of the study as well as the conclusions, recommendations, and directions for further research. The recommendations were made based on the key findings and major conclusions arising from the study. The study investigated the influence of academic self-efficacy on student's academic performance of the Senior High Schools within the Sekondi-Takoradi metropolis.

Specifically, the study was guided by the following research questions and hypothesis:

1. What is the level of academic self-efficacy of senior high school students in Sekondi Takoradi Metropolis?
2. What are the factors that influence students' academic self-efficacy in the Sekondi Takoradi Metropolis?
3. There is a statistically significant relationship between self-efficacy and academic performance.
4. There is a statistically significant difference in students' self-efficacy level on the basis of gender.

#### Summary

The descriptive survey design was used in this study. Three-hundred and four (304) data was collected and retrieved from SHS two students in the five schools of the study area. For gender representative, each form 2 class was arranged according to their gender and then systematic random sampling procedure was used in the administering of the questionnaire. The accessible

sample was made up of five mixed public form two Senior High Schools in the Sekondi-Takoradi Metropolis: Adiembra SHS, Diabene SHTS, Sekondi College, Sekondi-Takoradi SHS and Sekondi-Takoradi Tech. Three-hundred and four (304) data was collected and retrieved from the 350 sample size, representing 87% of the accessible population. The questionnaire for the study

was an adopted instrument of Academic Self-Efficacy of 40 items (20 positive and 20 negative items) with 60 constructed objective test questions of the SHS core subjects; mathematics, science, English and Social Studies. Pre-testing was done in Fijai senior high school to ensure reliability of the instrument.

“The questionnaire was an adopted Academic Self-Efficacy instrument of 40 items (20 positive and 20 negative items) with 60 constructed objective test questions of the SHS core subjects; Mathematics, Science, English and Social Studies. The responses from the questionnaire were coded and entered into SPSS computer software for analysis and interpretation. Descriptive and inferential statistical tools were employed in the analysis and the interpretation of the data. Frequency counts and percentage counts were used in analyzing the demographic information of the respondents’. Frequency counts, mean and standard deviation were used in analyzing research questions one and two. Pearson moment correlation and individual sample t-test were used to analyze the two hypotheses respectively.

### **Major Findings**

For research question one, it was found that half of the student participants had high levels of academic self-efficacy and almost half of them also had low levels of academic self-efficacy.

For research question two, it was realised that the factors that influenced the students' academic self-efficacy most were: the learning process of students, peer relationship, comprehension, and examination. Utilization of resources and time management showed to influence academic self-efficacy very little.

The research hypothesis one found that there was a statistically significant relationship between academic self-efficacy and students' academic performance. However, this relationship was a weak positive relationship.

The second research hypothesis showed that there was a statistically significant difference in academic self-efficacy in relation to gender. Males had higher levels of academic self-efficacy as compared to the female counterparts.

### **Conclusions**

Based on the findings of the study, the following conclusions have been made:

“The students within the Sekondi-Takoradi metropolis had a mixed level of academic self-efficacy. Equally, there was a large number of students who experienced high level and low level of self-efficacy. This could be associated to fact that the sample was drawn across different schools of different elite standard. The study unveiled the fact that different levels of academic self-efficacy existed within the metropolis.

Secondly, it can be concluded from the study that there were various factors that influence the academic self-efficacy of students in the metropolis. Some could be linked to the fact that various students come from different socio-economic background and also from different educational communities or environment within the metropolis. Hence, it is likely there were other



mediating and moderating individualistic factors the study could not realise. However, those found by the study could be attended to in order to improve the level of students' academic self-efficacy and by so doing, the overt factors will over time manifest.

Thirdly, it could be concluded that the relationship between students' academic self-efficacy and students' test performance was frail. This gives the researcher a speculative mind of other existing mediating factors that could have some level of relationship with students' academic performance. Though, academic self-efficacy showed a relationship with academic performance, the researcher believes that other factors like motivation, socioeconomic status, and others of students could be regarded as mediating factors that could relate to students' test performance."

"Lastly, there was no significant difference between female and male students' academic self-efficacy. This could be concluded and directed to the fact that there was no exceptional personality or academic development training for sexes at this level of education."

### **Recommendations**

Based on the findings, the following recommendations are made for policy and practice:

1. "The Ghana Education Service and administrations of schools within the metropolis should ensure seminars, workshops are embarked upon to educate teachers and students the essence of students' academic self-efficacy.
2. Teachers should make the students aware of their self-efficacy and should try to develop a positive attitude on their own self-efficacy as a result of which they can able to accomplish their goals on their academic

ground. Students with low academic self-efficacy should be trained with learning and motivational deficiencies by modelling specific self-regulatory methods and cognitive processes.

3. It is also recommended that in educational institutions adequate efforts should be taken by the stakeholders such as teachers and headteachers to develop academic self-efficacy among the students to a great extent. For this reason, group discussion and workshops should be conducted in the institutions.

### Suggestions for Further Research

The main purpose of the study was to evaluate the influence of academic self-efficacy on student's academic performance of the Senior High Schools within the Sekondi-Takoradi Metropolis.

Further research can be done on the following:

- i. "Academic self-efficacy on subject basis that influence students' academic performance of the Senior High Schools within the Sekondi-Takoradi Metropolis."
- ii. Influence of socioeconomic status, motivation and academic self-efficacy, on students' academic performance of the Senior High Schools within the Sekondi-Takoradi Metropolis.
- iii. "Academic self-efficacy and academic performance among university undergraduate students: An antecedent to academic success.





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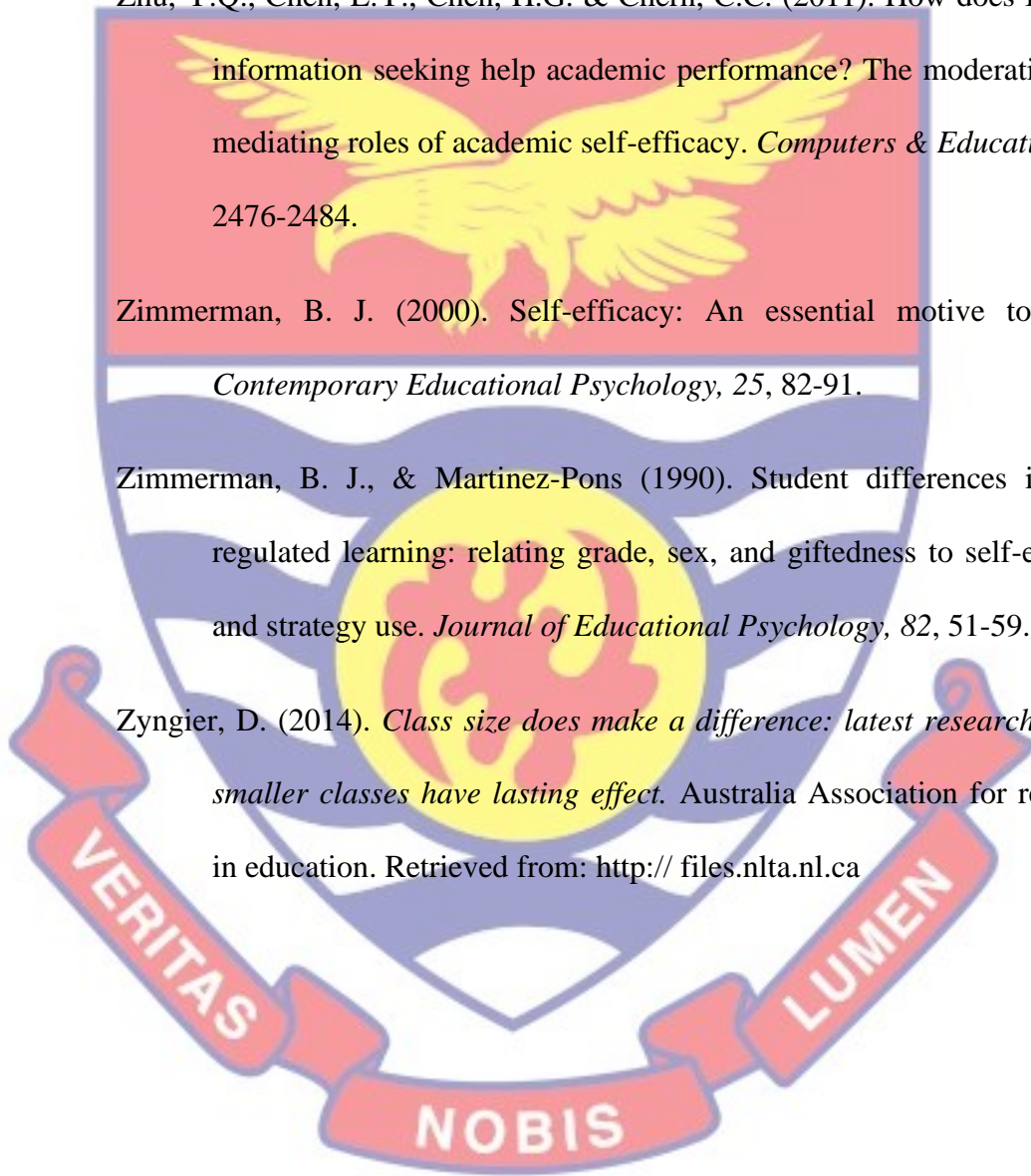
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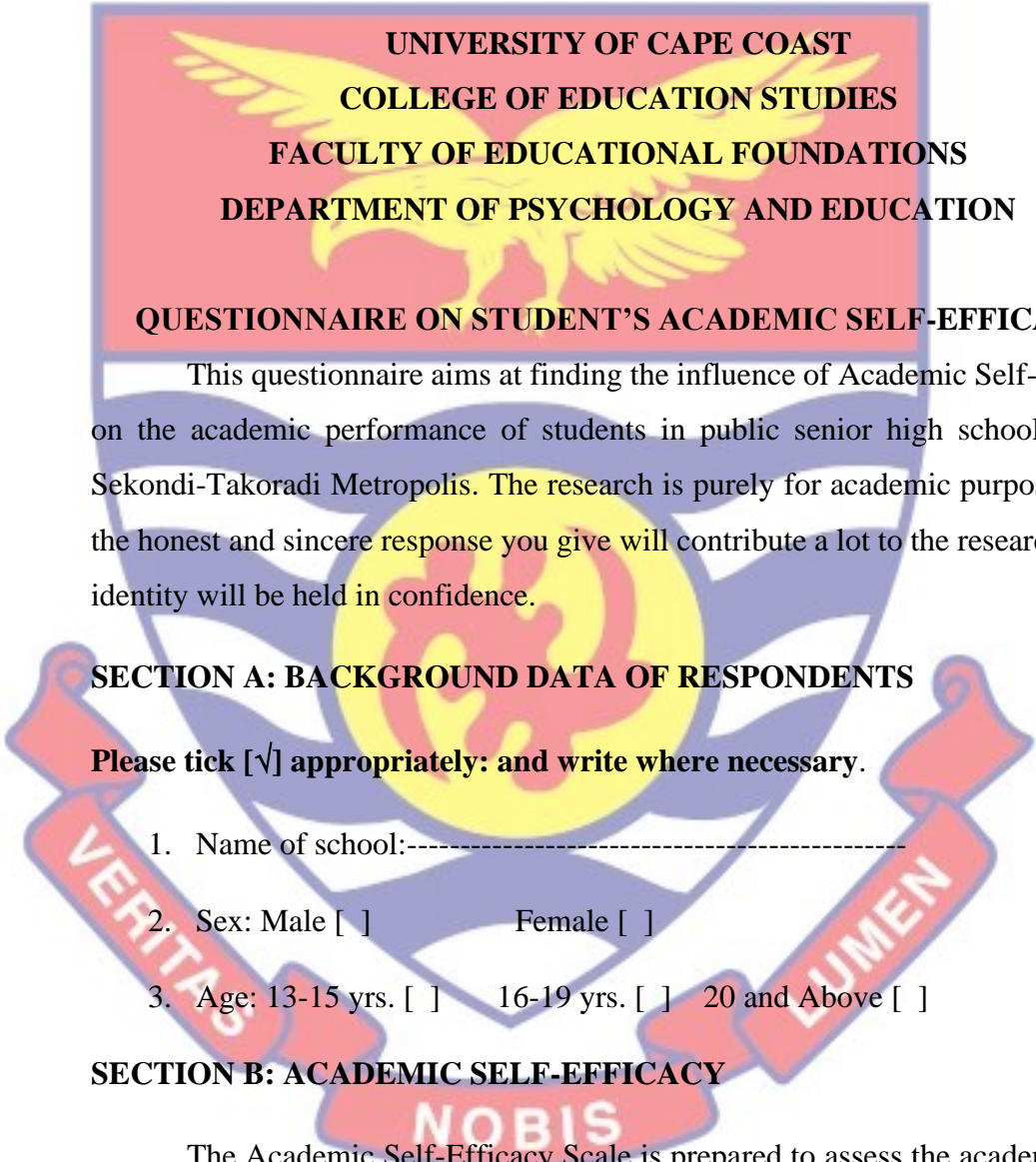
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## APPENDICES

### APPENDIX A



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

#### **QUESTIONNAIRE ON STUDENT'S ACADEMIC SELF-EFFICACY**

This questionnaire aims at finding the influence of Academic Self-Efficacy on the academic performance of students in public senior high schools in the Sekondi-Takoradi Metropolis. The research is purely for academic purpose hence the honest and sincere response you give will contribute a lot to the research. Your identity will be held in confidence.

#### **SECTION A: BACKGROUND DATA OF RESPONDENTS**

**Please tick [] appropriately: and write where necessary.**

1. Name of school:-----
2. Sex: Male []                      Female []
3. Age: 13-15 yrs. []    16-19 yrs. []    20 and Above []

#### **SECTION B: ACADEMIC SELF-EFFICACY**

The Academic Self-Efficacy Scale is prepared to assess the academic self-efficacy of secondary school students based on the Self-Efficacy theory of Albert Bandura (1977). The scale is based on the idea that the efficacy of the students in each of the dimensions of academic work would contribute to the overall academic self-efficacy. The selected dimensions of academic work are Learning process,

Reading, Comprehension, Memory, Curricular Activities, Time Management, Teacher Student relationship, Peer Relationship, Utilization of resources, Goal Orientation, Adjustment and Examination.. In all there are forty (40) items or statements.

In filling the inventory (form), read each item first. Make sure you understand. On the right side of the item there is a row of boxes. Indicate in one of the boxes a tick [✓] to show how true the item applies to you.

Statements	Exactly True	Nearly True	Neutral	Nearly False	Exactly False
1. Irrespective of the subject, I am competent in learning.					
2. I sense that I am quick to pick the points from what I read					
3. I can do my projects well.					
4. I can arrange for the help of my teachers in learning.					
5. I can arrange for help from my peers for my learning whenever I need it.					
6. I can usually find out quite a few solutions when I confront with problems in my study.					
7. During examinations, I can recollect what I have learnt.					
8. If taught, I can prepare my class notes neatly.					
9. I am assured that I have a few friends who would be helpful in my study.					
10. I can accomplish my aims in learning.					

11. I can develop the reading skill required to learn school subjects.					
12. I can utilize the available library facility for my study.					
13. If I miss some classes for some reason, I can compensate the loss fairly well.					
14. I am confident that I can perform well in competitive examinations.					
15. I can be calm at time of exam as I am conscious of my ability to learn.					
16. I can usually handle the disturbing situations in the study.					
17. If a sudden test is conducted for us without prior notice, I can answer it well.					
18. If I try, I can become one of the good grade holders.					
19. I can score well in the short answer type questions.					
20. However twisted the question is I can answer them.					
21. I cannot read and understand my text books well.					
22. I feel that I have no ability to keep things unforgotten.					
23. I can't manage time efficiently for learning.					
24. I fail to find out the necessary sources for my study.					
25. I fail to set higher goals in my study.					



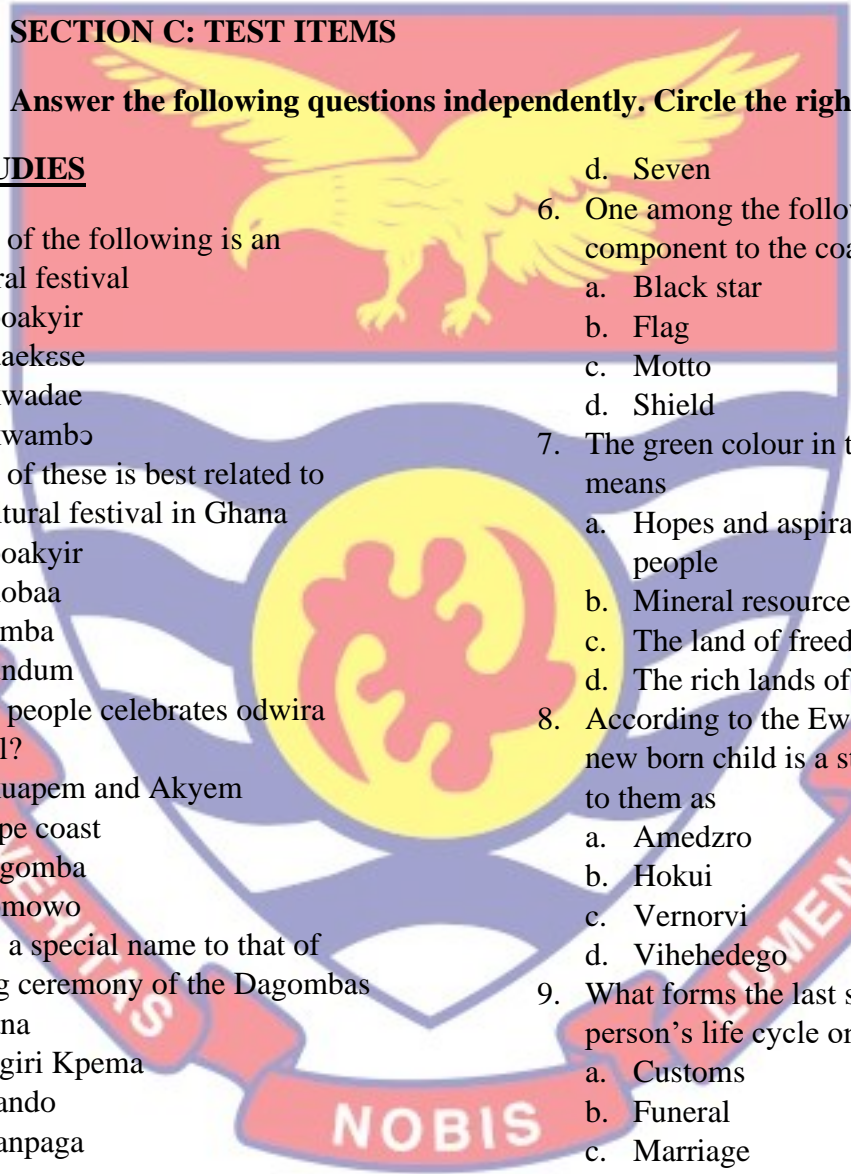
26. I can't express ideas well while attending examinations.					
27. It is difficult for me to read and understand the textbooks in English language.					
28. Often I fail to comprehend the actual meaning of what I study.					
29. I fail to find out time for learning in the midst of sundry chores.					
30. I can't arrange the resources of my study from my relatives, neighbours, etc.					
31. I may not clarify doubts from my teachers while in class, even if I reach higher classes.					
32. I can't answer the essay type questions well.					
33. I experience that I am weak in understanding the classes of my teachers.					
34. When I study a new concept, I can't recall the related knowledge from the earlier classes.					
35. I observe that I fail to prepare my seminars and assignments in time.					
36. I consider that I fail to develop a healthy relationship with my teachers.					
37. I can't deal efficiently with the unexpected problems in my study.					
38. I can't complete the homework myself without any help from guidebooks, previous notes etc.					

39. I can't answer the questions which teachers ask me.					
40. I can't accomplish challenging tasks and problems in my study.					

**SECTION C: TEST ITEMS**

**Answer the following questions independently. Circle the right answer.**

**SOCIAL STUDIES**

- 
1. Which of the following is an ancestral festival
    - a. Aboakyir
    - b. Adaekese
    - c. Akwadae
    - d. Akwambo
  2. Which of these is best related to agricultural festival in Ghana
    - a. Aboakyir
    - b. Ahobaa
    - c. Damba
    - d. Kundum
  3. Which people celebrates odwira festival?
    - a. Akuapem and Akyem
    - b. Cape coast
    - c. Dagomba
    - d. Homowo
  4. This is a special name to that of naming ceremony of the Dagombas in Ghana
    - a. Dagiri Kpema
    - b. Saando
    - c. Saanpaga
    - d. Sunna
  5. A Dagomba child is confined in the house for.....days before he or she can be taken anywhere.
    - a. Eight
    - b. Five
    - c. Forty
    - d. Seven
  6. One among the following is not a component to the coat of arms
    - a. Black star
    - b. Flag
    - c. Motto
    - d. Shield
  7. The green colour in the national flag means
    - a. Hopes and aspirations of the people
    - b. Mineral resource of Ghana
    - c. The land of freedom and justice
    - d. The rich lands of Ghana
  8. According to the Ewes of Ghana, a new born child is a stranger known to them as
    - a. Amedzro
    - b. Hokui
    - c. Vernorvi
    - d. Vihedego
  9. What forms the last stage of the person's life cycle on earth?
    - a. Customs
    - b. Funeral
    - c. Marriage
    - d. Outdooring
  10. Which deals with man made things
    - a. Culture
    - b. Universal culture
    - c. Material culture
    - d. Non material culture

11. Palm wine and water are used during the Akans naming ceremonies to signify.
- Bravery and truthful
  - Hard working and courageous
  - Honest and beauty
  - Knowledge and obedience
12. Naming ceremony of the Gas is known as
- Aba dzinto
  - Amedzro
  - Kpodziemo
  - Sunna
13. A total number of people living in a confined geographical area at a particular time is known as
- Community
  - Environment
  - Migration
  - Population
14. Asafotu-fiami is a festival to the people of
- Ada
  - Elimina
  - Kwawu
  - Techiman
15. Sankofa symbol literary means
- Correct your past mistakes
  - Picking up outdated things of the past
  - Turning back to fetch it
  - Use your previous knowledge
16. A group of people living in a defined environment with common interests, enduring ties, frequent interactions and a sense of closeness is known as
- Adoption
  - Community
  - Culture
  - Development
17. Which of the following symbols give Ghana as an independent state?
- The coat of Arms
  - The national anthem
  - The national flag
  - The state sword
18. Availability of highly skilled personnel will help a country
- Achieve political stability
  - Experience high infant mortality rate
  - Exploit her national resources effectively
  - Stop rural-urban migration
19. The method used to record the percentage of a total number of people either increase or decrease in a defined area is termed as
- Population
  - Population census
  - Population growth rate
  - Rapid population growth
20. A group of people with positive attitudes values and projects which help in improving the living standards of the people in a given area is known as
- Community
  - Community development
  - Developed community
  - Population

**MATHEMATICS**

1. The cost of a pen is GH¢2.00 and it was sold for GH¢1.50. find the loss percent
- 20%
  - 25%
  - 40%
  - 50%
2. Students studies fee of GH¢200.00 was increased by 20%. Find the new value
- GH¢120.00
  - GH¢140.00
  - GH¢150.00
  - GH¢180.00
3. Percentages are really fractions



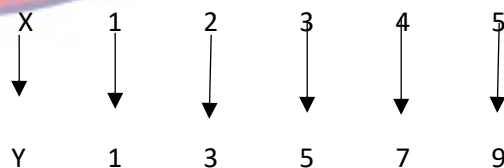
- a. True
  - b. False
4. Fred obtained 100 marks out of 120 marks in an English text. What was his percentage score?
- a. 83.00
  - b. 83.33
  - c. 85.00
  - d. 85.33
5. Common fractions are represented in the form  $\frac{a}{b}$ , where  $b \neq 0$
- a. True
  - b. False
6. A textbook which cost GH¢4.00 to produce was sold for GH¢6.00. find the loss percentage
- a. 20%
  - b. 30%
  - c. 40%
  - d. 50%
7. The number of times an event occurs is called
- a. Frequency
  - b. Mean
  - c. Median
  - d. Mode
8. The modal mark is also known as.....
- a. Frequency
  - b. Mean
  - c. Median
  - d. Mode
9. Pick the odd one out of the following
- a. Bar chart
  - b. Block graph
  - c. Discrete data
  - d. Pie chart

The table shows the number of goals scored by a football team in a league season

10. What is the total number of goals scored by the team?
- a. 2
  - b. 8
  - c. 20
  - d. 40
11. What is the total number of matches played by the team
- a. 2
  - b. 20
  - c. 40
  - d. 60
12. What is the mean number of goals scored in a match
- a. 2
  - b. 20
  - c. 40
  - d. 60
13. What is the mode of the frequency distribution
- a. 0
  - b. 1
  - c. 2
  - d. 3
14. All relations are mappings, but not all mappings are relations
- a. True
  - b. False
15. Find the rule of the mapping

Use the table below to answer question 10-13

Mark(x)	0	1	2	3	4	5
Frequency (f)	1	1	7	6	4	1



a.  $x \longrightarrow 2x+1$

- b.  $x \longrightarrow 2x-1$   
 c.  $x \longrightarrow x+1$   
 d.  $x \longrightarrow x-1$
16. ....is a relation which each member in the domain maps onto only one member in the co-domain  
 a. Element  
 b. Mapping  
 c. Range  
 d. Set
17. A triangular pyramid is also called.....  
 a. Cone  
 b. Cube  
 c. Cuboid  
 d. Tetrahedron
18. Pick the odd one out of the following  
 a. Rhombus  
 b. Square  
 c. Trapezium  
 d. Triangle
19. How many line of symmetry has a square  
 a. 1  
 b. 2  
 c. 3  
 d. 4
20. Square is to rhombus and rectangle is to what?  
 a. Kite  
 b. Parallelogram  
 c. Pentagon  
 d. Trapezium
- d. Since
2. My mother has bought a .....car  
 a. Brand new private  
 b. New brand private  
 c. Private brand new  
 d. Private new brand
3. You will be late.....you hurry  
 a. If  
 b. Or  
 c. Unless  
 d. While
4. Agya bonsam is .....poor that, he cannot pay his bills  
 a. Hurry  
 b. So  
 c. Too  
 d. Very
5. Gabriel was.....that he won four prizes  
 a. A boy so brilliant  
 b. A brilliant so boy  
 c. A so brilliant boy  
 d. So brilliant a boy
6. Jessica's teacher asked her to choose.....Peter and Paul  
 a. Among  
 b. Between  
 c. From  
 d. With
7. She.....St. Paul's Prep. And JHS  
 a. Attend  
 b. Attended  
 c. Attending  
 d. Attends
8. Before the teacher entered the classroom we.....the chalkboard  
 a. Are cleaning  
 b. Cleaned  
 c. Had cleaned  
 d. Have cleaned
9. The .....centre is located on the hill

### ENGLISH

*From the alternative lettered A to D, choose the one which most suitably completes each sentence*

1. Abatay has been absent from class.....one month  
 a. For  
 b. From  
 c. In

- a. Man's
  - b. Mans
  - c. Men's
  - d. Mens'
10. The team.....everyday
- a. Train
  - b. Trained
  - c. Training
  - d. Trains

*Choose from the alternative lettered A to D, the one which is NEAREST IN MEANING to the underlined word.*

11. The pupil appeared lackadaisical after taken their launch
- a. Active
  - b. Calm
  - c. Happy
  - d. Lazy
12. On essential item for making local soap is soda ash
- a. Correct
  - b. Important
  - c. Main
  - d. Real
13. The captain's penalty kick was a feeble one
- a. Impressive
  - b. Nice
  - c. Powerful
  - d. Weak
14. We shall have the final rehearsal for the play tonight
- a. Meeting
  - b. Practice
  - c. Preparation
  - d. Trial
15. The dog saw its image in the water
- a. Nature
  - b. Conduction
  - c. Reflection
  - d. Attraction

*In each of the following sentence a group of words has been underlined. Choose from the alternatives lettered A to D the ONE EXPLAINS the underlined group of words*

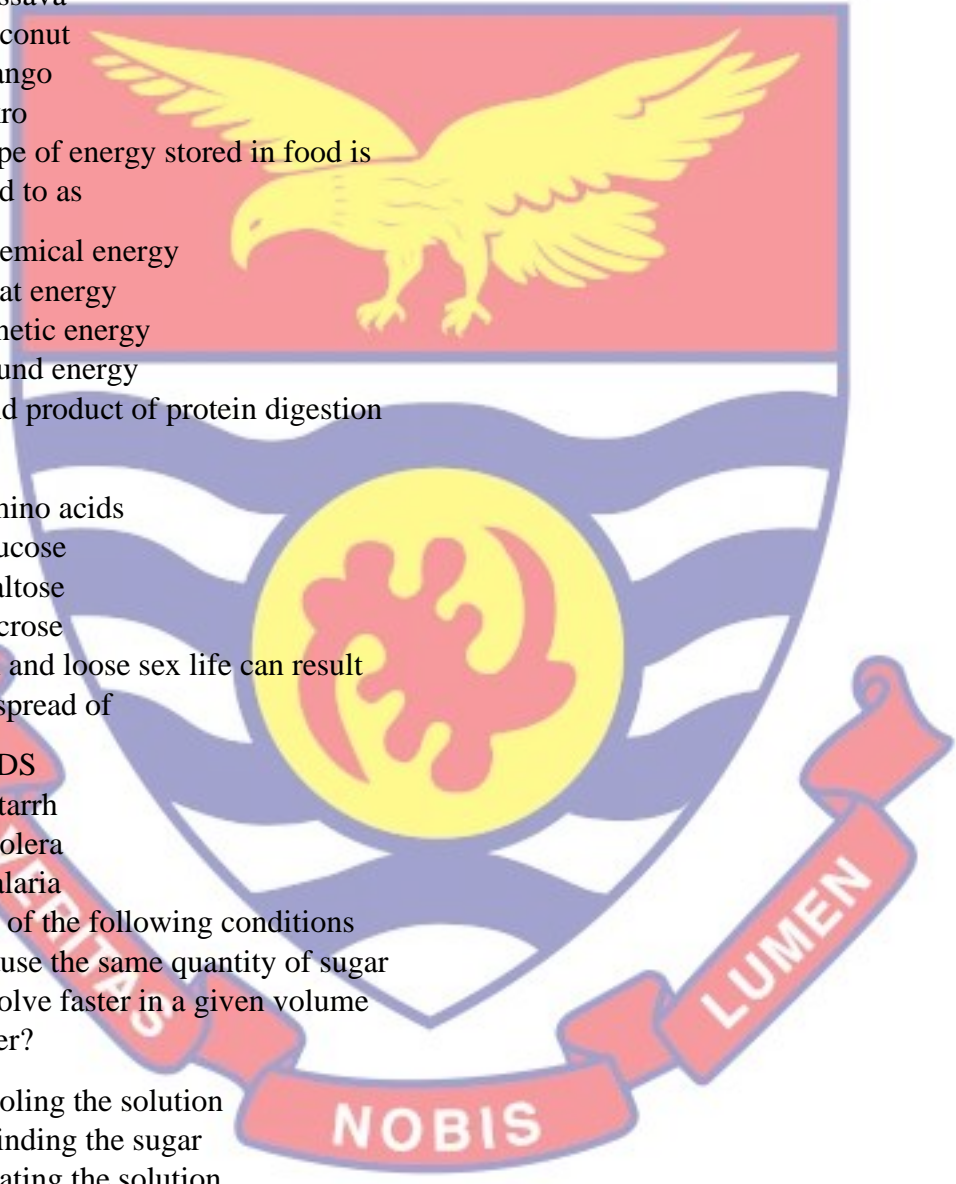
16. Kofi was taken aback on seeing a stranger in his room. This means that .....
- a. Afraid
  - b. Angry
  - c. Confused
  - d. Surprised
17. The opponents decided to bury the hatchet. This means that.....
- a. Bury their guns
  - b. Hold discussions
  - c. Make peace
  - d. Suspend the fighting
18. The students were advice to stop building castle in the air. This mean that.....
- a. Be serious and hardworking
  - b. Be serious and realistic
  - c. Not build anymore castle
  - d. Not worry about castle
19. The chief told his linguist not to beat about bush. This means the linguist must
- a. Cut down the bush
  - b. Go straight to the point
  - c. Not enter the bush
  - d. Not stammer
20. Fred normally feels at home. In my house. This means that Fred.....
- a. Eat well
  - b. Feels comfortable
  - c. Lives peacefully
  - d. Move about

**SCIENCE**



1. Which of the following organs is used by fish for movement?
  - a. Eye
  - b. Fin
  - c. Gill
  - d. Tail
2. The basic unit of matter is the
  - a. Atom
  - b. Compound
  - c. Element
  - d. Ion
3. Which of the following process is a physical change?
  - a. Boiling of an egg
  - b. Burning of paper
  - c. Melting of ice
  - d. Rusting of iron
4. The device that uses an electromagnet in its operation is the
  - a. Electric bell
  - b. Electric iron
  - c. Radio
  - d. Sewing machine
5. The substance that sublimes when heated is
  - a. Baking powder
  - b. Camphor
  - c. Common salt
  - d. Sugar
6. The parasite that is found on dog is
  - a. Capsid
  - b. Plasmodium
  - c. Tapeworm
  - d. Tick
7. The organ that removes metabolic wastes from the human body is
  - a. Anus
  - b. Heart
  - c. Kidney
  - d. Rectum
8. Which of the following statements about mammals is true?
  - a. They are cold blooded
  - b. They have feathers
  - c. They have hair
  - d. They lay eggs
9. Clayey soil hold more water than any other type of soil because it has
  - a. Irregular particle size
  - b. Large particle size
  - c. Larger air space
  - d. Reduced air space
10. Desert plants shed their leaves to reduce the rate of
  - a. Absorption of minerals
  - b. Diffusion
  - c. Osmosis
  - d. Transpiration
11. Which of the following activities is a reflex action?
  - a. Eating
  - b. Fighting
  - c. Learning
  - d. Sneezing
12. The method of separation used in the treatment of water at water works is
  - a. Decantation
  - b. Evaporation
  - c. Magnetization
  - d. Precipitation
13. The gas produced when dilute hydrochloric acid is added to calcium carbonate is
  - a. Ammonia
  - b. Carbon dioxide
  - c. Hydrogen
  - d. Oxygen
14. Which of the following environmental factors increases sweating in humans?

- a. High pressure  
b. High temperature  
c. Low pressure  
d. Low temperature
15. Which of the following crops is propagated vegetatively
- a. Cassava  
b. Coconut  
c. Mango  
d. Okro
16. The type of energy stored in food is referred to as
- a. Chemical energy  
b. Heat energy  
c. Kinetic energy  
d. Sound energy
17. The end product of protein digestion is
- a. Amino acids  
b. Glucose  
c. Maltose  
d. Sucrose
18. Casual and loose sex life can result in the spread of
- a. AIDS  
b. Catarrh  
c. Cholera  
d. Malaria
19. Which of the following conditions will cause the same quantity of sugar to dissolve faster in a given volume of water?
- a. Cooling the solution  
b. Grinding the sugar  
c. Heating the solution  
d. Stirring the solution
20. The raw material for photosynthesis is
- a. Carbon dioxide  
b. Chlorophyll  
c. Mineral salts  
d. Oxygen



THANK YOU

IVY SELLEY ARHIN

APPENDIX B

UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu/14/20-16  
Your Ref: .....



Date: 12.03.2020

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

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Secretary, CES-ERB  
Prof. Linda Dzama Forde  
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The bearer, Ivy Selley Arhin....., Reg. No. EF/PPE/15/0008 is an 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 self-efficacy on the academic performance of students in public Senior High Schools in the Sekondi-Takoradi Metropolis

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)