UNIVERSITY OF EDUCATION, WINNEBA

LEARNING STYLE PREFERENCES AND STUDY HABITS AS DETERMINANTS OF ACADEMIC ACHIEVEMENT AMONG PUBLIC JUNIOR HIGH SCHOOL PUPILS IN THE EFFUTU MUNICIPALITY

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A THESIS IN THE DEPARTMENT OF BASIC EDUCATION, FACULTY OF EDUCATIONAL STUDIES, SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF EDUCATION, WINNEBA, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY (BASIC EDUCATION) DEGREE

OCTOBER, 2018

DECLARATION

Student's Declaration

I, Faustina Appiah, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature: ………………………………………….

Date: …………………………………………….

Supervisors' Declaration

We hereby declare that the preparation and presentation of this work were supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.
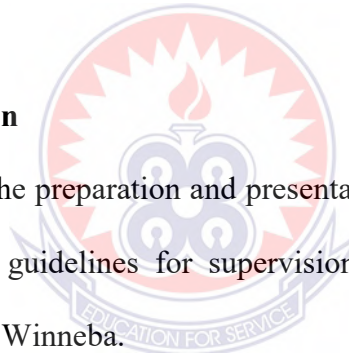
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Signature…………………………………………………...

Date………………………………………………….

ACKNOWLEDGEMENTS

DEDICATION

To my loving sister, Veronica Boamah for her prayers and immense support.

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ABSTRACT

The purpose of the study was to investigate the learning style preferences and study habits and how they affect the academic achievement among students in public junior high schools in the Effutu Municipality Central Region. The study was grounded in Fleming"s (1995) VAK learning style theory and the Bakare"s (1977) study habits inventory. The descriptive survey design was used and was aligned with positivist paradigm where 532 public junior high school pupils were chosen through the stratified random sampling technique. A reliability coefficient of not less than 0.70 was realized for all the various constructs. The data gathered through questionnaire were analysed using both descriptive (frequency, percentage, mean, standard deviation) and inferential (t-test, ANOVA, Pearson correlation, multiple regression) statistics with the aid of Version 22 of the Statistical Product for Service Solution (SPSS). The study revealed that the visual learning style was most dominantly preferred (M = 3.88, SD = 0.62), followed by kinesthetic (M = 3.67, SD = 0.72), and auditory (M = 3.58, SD = 0.66) learning styles. It was again discovered that public junior high school pupils frequently practiced homework and assignment (M = 3.38, SD = 0.61), than reading and note-taking (M = 3.27, SD = 0.40), time management (M = 3.23, SD = 0.64), examinations (M = 3.19, SD = 0.65), and concentration (M = 3.15, SD = 0.66) related study habits. Besides, it was established that generally there was a strong and statistically significant positive relationship between learning styles preferences of pupils" and academic achievement (r = 0.861, p = 0.000, 2-tailed). Furthermore, the study showed that study habits are good predictors of pupil"s academic achievement where it accounted for a significant 5.9% in pupil"s academic achievement. Therefore, it was recommended that the Effutu Municipal Education Directorate should collaborate with school guidance and counseling coordinators to plan and execute academic programmes such as workshops and seminars to expose teachers to adopt and practice instructional pedagogies to meet the varied learning style preferences and study habits of pupil"s so as to boost their academic achievement.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter comprises the background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, delimitation of the study, limitations of the study and finally, organisation of the rest of the study.

1.1 Background to the Study

Globally, education has been recognised as a pillar around which a nation"s socio-economic progress revolves. Accordingly, the provision of quality education is a priority that every country will aspire to include in the national goals of education. Scholars like Kimani, Kara and Njagi (2013) argued that the purpose of education is to equip the citizenry with values, skills and knowledge to reshape their society and eliminate inequality. From this prospective, it could be deduced that education helps an individual to develop his or her capabilities, attitudes and behaviour that are acceptable to the society, meet manpower needs, and create an egalitarian society.

Throughout the world, people are looking to education to pave the way for a more just social order on the grounds that education instils in the young crucial humanitarian values such as equity, tolerance and peace (Gwaradzimba & Shumba, 2010). Progress in education is taken to be essential for sustainable development, environmental protection, improvement in maternal and child health and participation in democratic social and political processes. Education is also currently becoming the most important contributor to national economic growth. Empirical evidence suggests that educational investment has been one of the most important factors contributing to

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economic growth in both developed and developing countries. Raudenbush and Williams (1991), and Lockheed and Verspoor (1991) as cited in Osa-Edoh and Alutu (2012) argue that to increase the pace of economic and social development in developing countries, schools must teach most school age children the essential skills targeted by the primary school curriculum, which include literacy, numeracy, communication skills and problem-solving skills. Access to good-quality schooling is thus, of central importance to national development.

Ghana has shown commitment to the achievement of Universal Basic Education by implementing interventions such as the capitation grant, school feeding programme, free exercise books and uniforms to improve access to basic education (Education Sector Annual Report, 2013). As a result of these interventions, students" enrolment has increased in recent years (Education Sector Annual Report, 2013). However, studies like Hanushek and Wobmann (2011) have documented that it is not enrolment per se, but rather the quality of education and learning outcomes that is more strongly linked with a country"s economic development. Intuitively, it could be concluded that increase in enrolment is necessary but an insufficient indicator of education success. In furtherance of this notion, Ankomah, Koomson, Bosu and Oduro (2008) posit that the quality education of a country is not measured in the quantitative expansion in enrolment due to the implementation of interventional strategies but rather it is measured by the examination results of its students. Corroborating this assertion, Ampofo and Osei-Owusu (2015) postulate that academic achievement is one of the key defining indicators of student educational success. It could be inferred from the above views that students" academic achievement is a measure of quality education in a country.

Additionally, scholars and practitioners still maintain that the academic achievement has far-reaching repercussions for students as well as nations. To this end, Kayode and Ayodele (2015) argue that the social and economic development of a country is directly linked with students" academic achievement. Battle and Lewis (2002) posit that students" academic achievement plays a crucial role in producing the best quality graduates as future leaders and manpower for a country"s economic and social development. Drawing from the reasoning of these authors, it could be construed that students of good academic standing are perceived to have demonstrated a grasp of relevant concepts, knowledge, skills, and attitudes to take leadership positions and man the various sectors of the economy. Conversely, poor academic achievement of students is evident of lack of necessary capacities for socio-economic progress and personal fulfilment. Due to this, literature on the diverse factors affecting students" academic remains a top priority to educators (Considine & Zappala, 2002; Geiser & Santelices, 2007).

Empirical studies have catalogued several factors that predict the academic achievement of students. In their study, Tshabalala and Ncube (2013) observed that inadequate instructional materials, inappropriate teaching methods, teacher"s self-motivation and lack of funds strongly affect the academic achievement of students. Consistent with this finding, Igwe and Ikatule (2011) and Nyarko (2011) unveil internal and external classroom factors to affect students" academic achievement. According to these scholars, internal factors such as teacher competency, class size, inadequate teaching and learning materials, and teacher motivation influences students" academic achievement. External classroom factors include factors such as socio-economic backgrounds of students, peer group influence, extracurricular activities, work and finance, and social problems.

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On the Ghanaian scene, Oduro (2008) have investigated the causes of poor academic achievement of students in Ghana and found out that poor supervision of teachers is a contributing factor. Besides, supervision of teachers is linked to their motivation (Kageha, 2008). Therefore, poor student achievement could be attributed to ineffective instructional supervision and demotivation of teachers. On their part, Etsey, Amedahe and Edjah (2005) in their study of some private and public schools in Ghana revealed that academic achievement is better in private schools due to more effective supervision of work. Thus, effective supervision improves the quality of teaching and learning in the classroom which lead to good academic achievement. Awanta and Asiedu-Addo (2009) contended that students from poor background just refused to learn or prepare adequately for examination. The discussion has shown that most of these factors are beyond the control of students.

Meanwhile, extant researches have consistently established that an effective learning style adopted by students is one of the major strategies to ensure good academic achievement. Chermahini, Ghanbari and Ghanbari (2013) averred that learning style is generally used to explain an individual's natural or habitual pattern of acquiring and processing information in learning situations. Smith and Dalton (2005) also assert that learning style is a distinctive and habitual manner through which knowledge, skills or attitudes are acquired based on study or experience. Studies have disclosed that once students realize their learning style and know how to make things fit their needs; they become more proficient learners; (Sims & Sims, 2006; Sze, 2009).

According to Liang (2012), when students are aware of their best learning style it helps to heighten acquisition of knowledge within a specific time frame. This suggests that learning style is directly linked to student learning outcomes and that effective

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learning style boost academic achievement while ineffective styles reduces achievement. Other studies have demonstrated that learning styles do not only affect academic achievement, but also they influence students" behaviour and attitude to learning Dunn, et al. (2009). Advocates for the use of learning styles in education such as Chermahini, Ghanbari and Chermahini (2013) therefore appeal that teachers should assess the learning styles of their students and adapt their classroom methods to best fit each student's learning needs. It could be assumed that appropriate learning styles spark and sustain students" enthusiasm for learning and spur them on to learn even in the face of challenges.

Besides students" learning styles, a review of available literature has indicated that study habits of students" do not only affect their learning style but have a positive influence on their academic achievement. Ackummey, Atta-Boison, Hama & Kankam (2001) are of the view that education rests with student"s benefits of as no one can learn on behalf of another person. Romeo (2006) validates this assertion when he argued that students cannot learn simply by being told what to do or by watching others; they have to practice studies habitually. It was stressed that students" success is dependent on their effectiveness, efficiency and concentration on studying and these are affected by the learning materials they use and the way they use it. The standpoint of Romeo (2006) hints that even though learning resources are vital to students" success, it hinges on the energy expended by students to study where they apply learning resources to their studies.

Empirical studies have documented the nexus between study habits and students" academic achievement. According to Fielden (2004), good study habits translates in good academic achievement by helping the student in critical reflection in skills

outcomes such as selecting, analysing, critiquing, and synthesizing. Studies have also demonstrated that successful students do not have intellectual ability but show commitment to their study habits which is the way and manner a student plans his or her private reading outside lecture hours in order to master a particular subject or topic (Ainley, 2006; Miller & Brickman, 2004; Azikiwe, 1998). Likewise, Nuthana and Yenagi (2009) have examined the causes of poor academic achievement among students, and poor study habit emerged as one of the major causes. The results of the above studies confirm that students" academic achievement is influenced by their study habits. Understandably, appropriate study habits lead to good academic attainment and vice versa.

Accordingly, Kass (2013) admonishes students that to ensure academic success, it is imperative that students discover their own learning style preference, and regardless of age and academic level, knowing their ideal learning style and employing effective study habits can make all the difference. It was further indicated that students should identify their own study preferences, what works for them on a consistent basis and act accordingly. Despite the extensive knowledge and empirical support that study habits affect academic achievement, Geiser et al (2007) observes that students have differing ways of learning which intuitively implies that not all methods of studying will be universally effective. The issue is "will learning styles and study habit predict student academic achievement? Drawing on this Okyerefo, (2005) calls for stakeholders to find effective solution to improving academic achievement of students in Ghana, this study becomes relevant.

1.2 Statement of the Problem

Learning is indispensable ingredient of human life (Esia-Donkoh, Eshun, & Acquaye 2015). No one can survive in this world without learning. As man is a social being, he has to learn in order to lead his life in a better way. Learning does not mean only the product or outcome for which the whole process of formal and non-formal education is organized. It is the process of reconstructing of experiences and modifying the existing knowledge in light of previous knowledge. Learning is one of the most important criteria in declaring one achievement as successful or unsuccessful.

In Ghana, students" academic achievement is a vital determinant for selection and placement into higher education and programmes. With the Computerized School Selection and Placement System (CSSPS) which is a competitive selection into Senior High Schools and programmes based on students" achievement in the Basic Education Certificate Examination (BECE), academic achievement has been of great concern for all stakeholders. Thus, contrary to the view that the school should adopt more holistic approach to focus on a much wider range of desired outcomes such as cognitive processing skills, emotional and social awareness, and moral character development (Huitt, 2006), there is consensus among practitioners that the primary focus of schools should be academic preparation for students (Tienken & Wilson, 2001). The Ministry of Education (2013) has observed that Ghana has witnessed increased poor teacher and student achievements in recent times. In the Effutu Municipality, academic achievement of students in Basic Education Certificate Examination (BECE) has not been encouraging as presented in Table 1.1.

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Table 1.1:   Academic Achievement of Students in Basic Education Certificate Examination (2013-2016)

Year	Pass Rate (%)	Failure Rate (%)
2013	42.5	57.5
2014	44.0	56.0
2015	44.8	55.2
2016	54.7	45.3

Source: *Effutu Municipal Examination Unit of Ghana Education Service (2013-2016)*

It could be observed from the data in Table 1.1 that in 2013, 42.5% passed whereas 57.5% failed. The pass rate increased in 2014 to 44% while the failure rate also decreased to 56%. Similarly, in 2015 the pass rate increased from 44% in 2014 to 44.8% in 2015. Achievement in 2016 also increased as the pass rate increased from 44.8% to 54.7% with the failure rate decreasing from 55.2% to 45.3%.The information has revealed the mean achievement pass from 2013 to 2016 is 46.5% which indicated that at least about 53.5% of the students failed each year. Researchers have investigated the causes of poor academic achievement of students, and learning style and study habits emerged as a contributing factor (Deniz, 2013: Kazu, 2009). Deductively, the problem of poor academic achievement mostly results from the learning style and study habits.

Deniz (2013) and Kazu (2009) in their study revealed that students" academic achievement is better due to improved study habit and better learning style. It could be deduced from the above exposition that to enhance academic achievement, there should be a conscious effort for students to identify their learning style preference and also apply good study habits to their studies. Having established that learning styles

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are directly linked with improved students" academic achievement (Gokalp, 2013, Nzesei, 2015 & Barman, Aziz, Yusoff, 2014, Afful-Broni & Mawusi 2010), this study hypothesize that the student poor achievement in the Effutu Municipality could be attributed to the poor study habits and learning styles practiced by the students. However, research into the learning style and study habits and its influence on academic achievement in the study area is rare. This study was therefore conducted to fill this gap.

1.3 Purpose of the Study

The purpose of the study was to ascertain the extent to which learning styles and study habits determine students" academic achievement among public Junior High School students in the Effutu Municipality in the Central Region of Ghana.

1.4 Research Objectives

The objectives of the study were to:

1. determine the nature of learning style preferences of pupils in public Junior High School in the Effutu Municipality in the Central Region, Ghana.

2. identify the study habits adopted by pupils in public Junior High School in the Effutu Municipality in the Central Region, Ghana. .

3. investigate how learning style preferences of pupils in public Junior High School in the Effutu Municipality in the Central Region, Ghana relate to their academic achievement.

4. investigate how academic achievement of pupils in public Junior High School in the Effutu Municipality in the Central Region, Ghana is determined by their study habits.

1.6   Research Questions

The study sought to answer the following research questions:

1. What is the perception of pupils on the nature of their learning style preferences in public Junior High Schools in the Effutu Municipality in the Central Region, Ghana?

2. What is the perception of pupils on the nature of their study habits practiced in public junior high schools in the Effutu Municipality in the Central Region, Ghana?

3. What is the relationship between learning styles and academic achievement among public junior high school pupils in the Effutu Municipality in the Central Region, Ghana?

4. What is the effect of study habits on academic achievement of Public Junior High School pupils in the Effutu Municipality in the Central Region, Ghana?

1.7 Significance of the Study

It is hoped that the findings of the study would be beneficial to the pupils, teachers, and policy makers in education. Firstly, it is anticipated that the study would provide evidence on the nature of study habits and learning styles among the pupils and offer appropriate recommendations to rehabilitate pupils who might be at risk of poor study habits and learning styles so as to improve their academic achievement. Secondly, it is hoped that the findings of the study would provide information to teachers, school guidance coordinators, and parents on the effect of pupils" study habits and learning style on their academic achievement so that proper motivation and guidance services would be offered to the pupils. Thirdly, it is hoped that the findings of the study would contribute to the body of knowledge on study habits and learning style and how it affects their academic achievement since there is paucity of empirical studies on

these issues in public Junior High Schools in the Effutu Municipality. Furthermore, the findings of the study will serve as a guide to school administrators, teachers, and school guidance and counseling coordinators to design evidence-based strategies so as to improve the study habits and learning styles of pupils. Finally, the outcome of the study would serve as a bench-mark to government, policy makers, the media, and researchers for future researches.

1.8 Delimitation of the Study

This study includes pupils" learning style preferences and study habits on the academic achievement in public Junior High Schools in the Effutu Municipality in 2017/2018 academic year. Therefore, private basic schools are outside the scope of the study.

1.9 Limitation

This study was conducted in the Effutu Municipality in the Central Region. Therefore, the findings may not be generalized to the entire Junior High Schools in the Central Region. Besides, the study habits and learning styles discussed in the study were based on the respondents" perception in the 2017/2018 academic year. Therefore, the findings might not be generalized to all times since the conditions during this study may change.

1.10 Organisation of the Study

The study is presented in five chapters. The first chapter focuses on the background to the study, the statement of the research problem, the purpose of the study, research objectives and questions, and the significance of the study, Chapter Two contains review of related literature which entails the theoretical and empirical reviews. Chapter Three describes the methodology applied in carrying out the study by

explaining the philosophical position of the study, research design, the population, the sample and sampling procedure, the instruments used in data collection and their validity and reliability, and the methods used in analyzing the data. Chapter Four presents the findings of the study, and finally, Chapter Five presents the summary of the findings, conclusions, recommendations, and suggestions for further studies.

1.11 Chapter Summary

Understanding the variations of an individual‟s way of learning and processing information is based on the concept of learning style and study habit. Student achievements could be influenced negatively if the application of their preferred learning style and a good study practice is neglected. The study was to ascertain the extent to which learning styles and study habits determine students‟ academic achievement among public Junior High School pupils in the Effutu Municipality and based on the problem stated; four research objectives and research questions guided the study. It was discussed that the outcome of the study would serve as a bench-mark to government, policy makers, the media and researchers for future researcher. Private basic schools are outside the scope of the study where as findings of the study may not be generalized to the entire junior high schools in Central Region.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

The focus of this chapter is to review related literature on the variables involved in the study. The review is organised under three thematic areas. The theoretical framework, empirical review of previous studies on the variables contained in the study and the final part of the review relates to the conceptual framework of the study which discusses the connection between the variables of the study. The review of literature is organised under the following sub-headings:

2.1 Theoretical Framework

Kolb"s Experiential Learning Style, Dunn and Dunn"s Learning Style Theory, Vermunt"s Learning Style Model, Gregorc"s Learning Style Theory and Fleming"s VAK Learning Style were adopted to explain the various forms of learning styles. The Information Processing Theory of Learning, Constructivism and Social Theory were adopted to further deliberate on students" study habits.

2.1.1 Kolb's Experiential Learning Style

Among the various learning style models, Kolb"s Experiential Learning Model (ELM) and Learning Style Inventory (LSI) (Learning-Centered Processed-Based Approach /Information Processing Style) has been widely utilised and modified to address the various educational contexts. Kolb proposes a four-stage hypothetical learning cycle. Individuals will show a preference for or will cope with some stages better than others and learning is seen as continuous, interactive process (Kolb, 1984). The four stages of the ELM are described as: concrete experience (CE; experiencing) which favors experiential learning; abstract conceptualization (AC; thinking) where there is a

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preference for conceptual and analytical thinking in order to achieve understanding; active experimentation (AE; doing) involving active trial-and-error learning; and reflective observation (RO; reflecting) where extensive consideration is given to the task and potential solutions before there is any attempt at action. The four learning orientations form two orthogonal bipolar dimensions of learning.

The first dimension is comprehension the grasping of information from experience- and is constituted by the bipolar orientations CE-AC. The second dimension described is transformation-the processing of grasped information- and is constituted by the remaining orientations AE-RO. Relative positioning along these dimensions defines the learning styles described by Kolb as convergence, divergence, assimilation and accommodation. The individual who adopts a convergent approach uses abstract conceptualization to drive active experimentation. Action is based on abstract understanding of the task and projected strategies for successful completion of the task. Divergers combine reflective observation with concrete experience to devise an often-creative solution. Divergers are often described as creative learners because of their propensity to consider multiple potential strategies for learning and problem solving. Assimilators, concerned primarily with the explanation of their observations, favor abstract conceptualization and reflective observation. As such, assimilators seek mainly to refine abstract theories rather than develop workable strategies and solutions. Lastly, Kolb defines the accommodator using active experimentation and concrete experience; these individuals have a clear preference for hands-on learning. The accommodator has been described as having a tendency for prompt action and a noted ability for adapting to diverse situations in any learning context (Kolb & Kolb, 2005).

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Assertions that the styles outlined by Kolb will be associated with student achievement have been borne out in a number of studies where, for example, convergers perform better on conventional examinations involving concrete answers (Lynch, Woelfl, Steele, & Hanssen, 1998). Despite such support, studies examining the psychometric properties of LSI have raised concerns regarding its reliability and validity (Coffield, Moseley, Hall, & Ecclestone, 2004) Kolb's emphasis on experiential learning and the developmental nature of learning suggests a potential for change in style (Lynch, Woelfl, Steele, & Hanssen, 1998). Studies that have examined stability and change using the LSI present a mixed picture. Low test-retest reliability statistics and changes in style classification (Sims, Veres, Watson, & Buckner, 1986) are countered by reports of exceptionally high-retest reliability of 0.99 found by Veres, Sims and Locklear (1991). Although also reporting high test-retest reliability statistics, (Loo, 1997) is cautious about them, believing that inappropriate statistical techniques may be masking individual changes in style in favor of group effects.

2.1.2 Dunn and Dunn's Learning Style Theory

Through their work in schools, they observed distinct differences in the ways students responded to instructional materials. They liked to learn alone, while others preferred learning in groups or from a teacher. Out of this preliminary work, they identified five key dimensions on which student learning style differed: (a) Environmental, (b) Emotional support, (c) Sociological composition, (d) Physiological, and (e) Psychological elements (Sternberg, 1997).

In terms of the environment, the Dunn's noted that students differed in terms of their definition of an ideal place to learn. Some wanted a warm, brightly lit place with desks, many people, and much verbal interaction, while others preferred cooler, more

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subdued lighting with a quieter, more informal environment. Though many teachers believe that they have little control over these elements, Dunn and Dunn describe how the standard square box of a classroom can be partitioned into separate areas with different environmental climates.

The emotional dimension centers on the extent to which students are self-directed learners. At one end of the continuum are self-starters who can be given a long-term project and who monitor and pace themselves until finishing the job. At the other end are students who need considerable support and have to have their assignments in small chunks with periodic due dates. Semester-long projects without periodic checks would be disastrous with these students. Understanding your students" apparent needs for support allows you to design learning experiences that help students succeed and learn more effectively (Coffield, Moseley, Hall, & Ecclestone, 2004).Students also differ in how they react to peer interaction. Some dislike group projects, preferring instead to learn by themselves; others thrive on the companionship and support provided by group work. Again others prefer the more traditional approach of learning from an adult. One can capitalize on these preferences by varying your teaching techniques based on different learning configurations.

Another important dimension identified by the Dunn's relates to individual differences in terms of physiological preferences. Probably the most important element here is learning modality; some of us are visual; others prefer auditory channels. Mobility, or the ability to periodically move around, is another element here. Another important element in this dimension is time. Some of us are morning people, while others do not function fully until later in the day. Teachers accommodate this dimension when they set up learning centers that allow student

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movement. This dimension may be one of the hardest for teachers to accommodate (Coffield, Moseley, Hall & Ecclestone, 2004).

A fifth and final learning style dimension is psychological. This dimension refers to the general strategies students use when attacking learning problems. Some attack them globally, looking at the big picture, while others prefer to address individual elements of a problem separately (Coffield, Moseley, Hall & Ecclestone, 2004). In a similar way, some students jump into problems, figuring things out as they go along, while others are more reflective, planning before beginning.

2.1.3 Vermunt's Learning Style Model

The concept of learning style has also been described by Vermunt in the Learning-Centered Processed-Based Approach/Information Processing Style in terms of: processing strategies, including an awareness of the aims and objectives of the learning exercise used to determine what is learnt; regulation strategies, which serve to monitor learning; mental models of learning, encompassing the learner,s perceptions of the learning process; and learning orientations, described as personal aims, interventions and expectations based on past experience of learning (Vermunt, 1992). Based on these strategies and orientations, Vermunt derives four learning styles: undirected where there is difficulty in assimilating learning material, coping with the volume of material; reproduction, where little or no effort is made to understand but instead information is reproduced to complete the task or achieve the minimum required standard; application directed, which is characterized by the application of learning material to concrete situations in order to gain understanding and lastly, meaning directed learning, which involves attempts to gain a deeper understandings of learning material and to draw on existing and related knowledge to

achieve critical understanding.

Based on this theory, the Vermunt"s Learning Style (LSI) was developed as a diagnostic tool for use in a higher education context. The degree to which each of the four styles is favored is assessed using Vermunt"s LSI (Vermunt, 1994). The LSI comprises of 20 subscales and 120 items relating to study strategies, motives and mental models. Individuals respond to statements along a five-point scale according to the degree to which the statement is descriptive of their behavior or the extent to which they agree with the statement.

2.1.4 Gregorc's Learning Style Theory

Anthony Gregorc"s Mind Styles model is purported to be based on how the mind works and also proposes four learning styles. Gregorc proposes that we perceive the world in both concrete and abstract ways and subsequently order those perceptions in either a sequential or random fashion. The combination of these perceptual qualities and ordering abilities generates four combinations: Concrete Sequential; Abstract Random; Abstract Sequential; Concrete Random. Although both of the perceptual qualities and both of the ordering abilities are present in each individual, some will be more dominant. It is this combination that determines our preferred Mind Style‖ and provides the foundation for our specific learning strengths or learning styles.

It is notable that there are a number of "loose similarities" between each of the preceding models, in so far as they each construct a matrix predicated on two intersecting continua (one concerned with the way we perceive, the other with how we process those perceptions). The model is based on the existence of perceptions- our evaluation of the world by means of an approach that makes sense to us. These perceptions in turn are the foundation of our specific learning strengths, or learning

styles (Gregorc, & Butler, 1984). In this model, there are two perceptual qualities: (a) concrete and (b) abstract; and two ordering abilities: (a) random and (b) sequential. Concrete perceptions involve registering information through the five senses, while abstract perceptions involve the understanding of ideas, qualities, and concepts which cannot be seen. In regard to the two ordering abilities, sequential involves the organization of information in a linear, logical way and random involves the organization of information in chunks and in no specific order. Both of the perceptual qualities and both of the ordering abilities are present in each individual, but some qualities and ordering abilities are more dominant within certain individuals (Gregorc, 1984).

There are four combinations of perceptual qualities and ordering abilities based on dominance: a) Concrete Sequential; b) Abstract Random; c) Abstract Sequential; d) Concrete Random. Individuals with different combinations learn in different ways they have different strengths, different things make sense to them, different things are difficult for them, and they ask different questions throughout the learning process.

2.1.5 Fleming's VAK Learning Style

One of the most common and widely used theories in learning style field is Neil D. Flemings VARK model (also VAK) which expanded upon earlier neuro-linguistic programming (VARK) models: visual learners, auditory learners, reading-writing preference learners and kinesthetic or tactile learners. According to Fleming, as a teacher, ones best option is to use a variety of teaching techniques to give all students the best chance to succeed. Further, most people possess a dominant or preferred learning style, however some people have a mixed and evenly balanced blend of the three types: visual, auditory and kinesthetic (Fleming, 1995). Table 2.1 summarises

the VAK dimensions, how students tend to learn and what the teachers need to do to ensure that learning is maximized:

Table 2.1   VAK Learning Style Dimensions

Dimension	Learners tend to:	Teachers need to encourage learners to:
Visual	Learn through seeing; Think in pictures and need to create vivid mental images to retain information; Enjoy looking at charts, pictures, videos, and movies; Have visual skills which are demonstrated in understanding charts and graphs, a good sense of direction, sketching, painting, creating visual metaphors (perhaps through the visual arts), manipulating images, constructing, designing practical objects, and interpreting visual images.	Use graphics to reinforce learning, Colour code to organise notes and possessions, use colour to highlight important points in text, take notes, illustrate ideas as a picture before writing them down, and ask for written directions, use flow charts and diagrams for note taking, Visualise spelling of words or facts to be memorized.
Auditory	Learn through listening; Have highly developed auditory skills and are generally good at speaking and presenting; Think in words rather than pictures; Learn best through verbal lectures, discussions, talking things through and listening to what others have to say; Have auditory skills demonstrated in listening, speaking, writing, storytelling, explaining, teaching, using humour, understanding the syntax and meaning of words, remembering information, arguing their point of view, and analyzing language usage	Read aloud; Recite information to learn; Use tunes or rhymes as mnemonic devices; Read aloud and tape test questions or directions; Use verbal analogies and storytelling to demonstrate their point.
Kinaesthetic	Learn through moving, doing and touching; Express themselves through movement; Have good sense of balance and eye- hand coordination; Remember and process information through interacting with the space around them; Find it hard to sit still for long periods and may become distracted by their need for activity and exploration; Have skills demonstrated in physical coordination, athletic ability, hands on experimentation, using body language, crafts, acting, miming, using their hands to create or build, dancing, and expressing emotions through the body.	Make models or role play to physically experience learning; Skim through reading material before reading it in detail; Annotate text and write questions while reading; Translate information into diagrams or other visual study tools; Recite a list of items by counting on fingers; Memories or drill while moving e.g. when walking; Listen to music while studying.

Source: *Fleming (1995)*

Fleming claimed that visual learners have a preference for seeing (think in pictures; visual aids that represent ideas using methods other than words, such as graphs, charts, diagrams, symbols, etc.). Auditory learner"s best learn through listening (lectures, discussions, tapes, etc.). Tactile/kinesthetic learners prefer to learn via experience moving, touching, and doing (active exploration of the world; science projects; experiments, etc.). Its use in instruction allows teachers to prepare classes that address each of these areas, especially in languages. Students can also use the model to identify their preferred learning style and maximize their learning by focusing on the mode that benefits them the most. It is on this learning style (VAK Learning Style) that the present study is anchored on (Fleming, 1995).

2.1.6 Study Habits

The Information Processing Theory of Learning, Constructivism and Social Learning Theory were adopted to further deliberate on student study habits.

2.1.6.1 Information Processing Theory of Learning

This theory describes the various compartments of the human brain namely the sensory register, the short-term memory and the long-term memory. It also describes how data is collected and processed in the various compartments of the human brain. According to Schneider and Bjorklund (1998), the sensory register is the originating storage compartment of the brain. This compartment receives information through the five senses (sight, hearing, touch, smell and taste) and stores this information for not more than a couple of seconds. If nothing happens to the information held in the sensory register, it is rapidly lost. Since the sensory register holds everything briefly, the individual has a chance to make sense of it and to organize it through pattern recognition. This according to Schneider and Bjorklund is very necessary since there

is much information available in the sensory register than can probably enter the next structure (the short-term memory). Thus, instead of perceiving everything, we pay attention to certain features of the total content in the sensory register and look for patterns. This implies that students must pay attention to information if they are to retain it and also take time to bring all the information seen into consciousness. Lecturers should also stress on salient points after a long lecture to help students retain needed information in the sensory register and further move it to the next structure (the short-term memory).

The next compartment according to Baddeley (1986) is the working memory or more commonly termed short-term memory, a temporary storage place having the limited capacity of approximately seven items. According to Miller as cited in Campbell (2007) the short-term memory is a storage system that can hold a limited amount of information for a few seconds. The short- term memory is believed to have a capacity of five to seven "bits" of information. That is, we can think about only five to seven distinct things at a time. However, any particular "bit" may itself contain a great deal of information. Baddeley said the short-term memory is part of the memory where information currently being thought about is stored. The thought we are conscious of having at any given moment are being held in our short-term memory. When we stop thinking about something it disappears from our short-term memory. One way to store information in our short-term memory is to think about it or say it over and over. According to information processing theorists, rehearsals are very important in maintaining information. They argued that without rehearsal items will not probably stay in the short-term memory for more than 30 seconds, and because the short-term memory has a limited capacity, information can be lost from it by being forced out by other information. However, if information is attended to it moves to the long-term

memory where information is stored permanently. This implies that distance learners need to read over their notes after every face-to-face meeting. Lecturers are also advised not to teach too much information too rapidly since this is likely to be ineffective unless students are given time to rehearse each new piece of information.

The third storage compartment is the long-term memory. This is that part of our memory system where we keep information for long period of time. Long-term memory is thought to be a very large capacity. Tulving (1985) suggested the existence of three types of long-term memory; episodic memory (personal events); semantic memory (language and environments); and procedural memory (steps in performing a skill). Again, connectionist models (Ellis & Humphreys, 1999; McLelland & Rumelhart, 1986) of memory and cognitive processing also suggest multiple storage locations throughout the brain. In these models, the brain comprised of a complex network of interconnected information units. Memories and information do not exist in isolated compartments but are connected by increasingly complex networks. In fact, many theorists believed that we may never forget information in the long-term memory; rather we may just lose the ability to find the information within our memory. Just as information can be stored in the long - term memory for a long time, so, too, the capacity for long-term seems to be very large. Information processing theorists posited that we do not live long enough to fill up our long-term memory. Theoretically we should be able to remember as much as we want when information has entered the long-term memory, however, this is practically not so.

Information Processing Theory informs study habit skills in terms of information storage and recall. Information storage begins at the point of gathering data through all our senses, when we receive stimuli from the environment through our natural

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pathways, before our brain processes the stimuli and stores the information in a meaningful way. When we use the study habit skills of, applying past knowledge to new situations, we need to be able to retrieve information from our brains" memory compartments to use this information in a different context (e.g. recalling our multiplication tables when planning the dimensions of a house extension). In this way information is recalled and processed into meaningful knowledge. In turn, then, this meaningful knowledge can assist learners to think and communicate with clarity and precision. Again, Information Processing Theory is useful here in terms of a learners" ability to process information, retrieve information and use knowledge meaningfully. However, this same theory ignores contextual and personal factors such as the role of emotions in learning and the attitudinal influence of the learning environment.

2.2   Constructivism

Constructivism is based on the principles of active participation in learning (Howe & Berve, 2000); self-regulated learning; social interaction for effective learning; and personal meaning-making (Bruner, 1990). Constructivist learning environments tend to be collaborative, learner-centered and inquiry-focused. Constructivist states that learning is an active, contextualized process of constructing knowledge rather than acquiring it. Knowledge is constructed based on personal experiences and hypotheses of the environment. Learners continuously test these hypotheses through social negotiation. Each person has a different interpretation and construction of knowledge process. The learner is not a blank slate (tabula rasa) but brings past experiences and cultural factors to a situation. Study Habit meld comfortably with the contemporary notion of constructivist learning.

The principles of constructivism parallel with study habits in terms of metacognition, thinking interdependently, questioning and posing problems and gathering data through all senses. Firstly, as learners construct their own meanings of their world, they employ metacognitive strategies such as reflection, planning and evaluation, as well as data-gathering processes through their five senses. Secondly, social interaction provides opportunities for learners to clarify their thought processes and learn from others in reciprocal situations. Finally, a questioning attitude serves the learner in terms of meaning-making and solving problems. However, the common misunderstanding regarding constructivism is that instructors should never tell students anything directly but, instead, should always allow them to construct knowledge for themselves. This is actually confusing a theory of pedagogy (teaching) with a theory of knowing. Constructivism assumes that knowledge is constructed from the learner"s previous knowledge, regardless of how one is taught.

2.3   Social Learning Theory

Bandura"s Social Learning Theory (1977) posited that people learn from one another, via observation, imitation and modelling. The theory has often been called a bridge between behaviourist and cognitive learning theories because it encompasses attention, memory, and motivations. People learn through observing others" behaviour, attitudes, and the outcomes of those behaviours. Most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. Social Learning Theory explains human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural, and environmental influences. Social Learning Theory suggested that a learners" behaviour is influenced by the interactive processes between cognitive and personal

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influences, external influences and influences of the behaviour itself.

Campbell (2007) identified three key aspects of this interactive process, namely observation, language and self-talks. According to Campbell, learners use observation, language and self-talk to make sense of the world and assist in their choice of behaviours. (1977) believed in "reciprocal determinism", that is, the word and a person"s behaviour cause each other, while behaviourism essentially states that one"s environment causes one"s behaviour. However, Bandura found this too simplistic, and so in addition he suggested that behaviour causes environment as well. Later, Bandura considered personality as an interaction between three components: the environment, behaviour and one"s psychological process (one"s ability to entertain images in minds and languages).

Again, the Social Learning Theory continued to state that people are more likely to engage in certain behaviours when they believe they are capable of executing those behaviours successfully. This means that they will have high self-efficacy. In layman's terms self-efficacy could be looked as self- confidence towards learning. Banduras" Social Learning Theory parallel study habits in terms of study habits skills such as: Metacognition which include the concepts of self- efficacy and self-regulation of behaviours, while gathering data through all senses comprises observational skills and learning from others. Thinking and communicating with clarity and precision incorporates language as the key communicative tool and the means of clarifying the learners" ideas and thoughts. Similarly, from the theoretical viewpoints, learners have to possess some study habit skills, such as self-regulation, gathering data through all senses, processing information, retrieving information for later use, questioning and metacognition in order to form a good study habit.

2.4 Bakare (1977) Study Habits Theory

Bakare (1977) Study Habits Theory delineates areas such as homework and assignment, time allocation, reading and note-taking, study period procedures, concentration, written work, examination taking and teacher consultation. However, in this study examinations, reading and notetaking, homework and assignment, concentration and time management were considered. This is because these construct relate very well in the Ghanaian contest. Bakare (1977), together with other researchers, have used this study habit inventory to conduct several studies and concluded that study habit variables correlated positively with academic achievement.

2.5 Concepts of Learning

Learning is the prerequisite concept of learning style. Learning has been defined, by Jonassen and Grabowski (1993), as the change due to experience. They go on to distinguish between learning as a product which explains the end result or outcome of the learning experience; learning as a process which emphasizes what happens during the course of the learning experience in attaining a given learning product or outcome; and learning as a function which emphasizes certain critical aspects of learning, such as motivation, retention, and transfer and which makes behavioural changes in human learning possible (Jonassen & Grabowski, 1993).

Wirth and Perkins (2008) see learning as building mental models (schema) consisting of new and existing information, and the richer the links between new and existing information, the deeper the knowledge and the more readily it can be retrieved and applied in new situations. They further explain that building rich links involves an iterative process of building, testing, and refining schema that organizes knowledge into conceptual framework, and if existing knowledge serves as a foundation for new

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learning, then it is also essential that existing misconceptions, preconceptions, and naïve conceptions are acknowledged and corrected during the learning process Zull (2002) supporting this claim, posits that within the brain, knowledge is organized and structured in networks of related concepts. Accordingly, new knowledge must connect to, or be built upon a framework of existing knowledge.

Learning can also be seen as the process of gaining understanding that results in modification of attitudes and behaviours through acquisition of knowledge, skills and values, through study and experience. This causes a change of behaviour that is relatively permanent, measurable and specified or provides the opportunity for the individual to formulate new mental construct or revise a prior construct (Abante, Almendral, Manansala and Manibo, 2014). They explain further that learning is a process that depends on experience and leads to long term changes in behaviour potential, and also describes the possible behaviour of an individual in a given situation in order to achieve a goal. However, they emphasize the need for periodic reinforcement of individual learning without which learning becomes shallower and inevitably displaced. When an individual is placed in a learning situation, the expectation is a change in behaviour or a certain level of achievement. Barnes Holmes and Moors (2013) reiterate that learning is seen as ontogenetic adaptation. That is, changes in the behavior of an organism as a result of regularities in the environment of the organism. They believe that this functional definition not only solve the problems of other definitions, but also has important advantages for cognitive learning research.

According to Wikipedia Encyclopedia (2007) Learning is one of the most important mental functions of human, animals and artificial cognitive systems. It relies on the acquisition of different types of knowledge support by perceived information. It leads to the development of new capacities, skills, valued, understanding and preferences. Its goal is the increasing of individual and group experience. Learning functions can be performed by different brain learning process, which depended on the mental capacities of learning subject, the type of knowledge which has to be acquitted, as well as on socio-cognitive and environmental circumstances. Many types of learning given by researchers like: Simple non-associative learning, Associative learning, Observational learning, Multimedia learning, Machine learning etc (Wikipedia Encyclopedia, 2007).

According to Michigan State University (2006) Learning as an active process in which the learner builds on prior knowledge to select and transform information based on their own cognitive structure (patterns of mental action that form intellectual activity). According to Beard (1972) to provide for effective learning the teacher needs some knowledge of the psychological factors which operate in stimulating a desire to learn and of those which interfere with the process. After digesting the reference on the learning, it can be said that learning is a cognitive and also active process which occurred at psychological level, environment and genes are also affected the learning process.

2.6 Learning Styles

Learning style is the method of learning used by a particular individual that is presumed to allow that individual to learn best (Reid, 2005; Riding & Rayner, 2000; Sims & Sims, 2006). There are wide ranges of learning style theories. One report

found seventy-one different learning style theories. Most of them used instruments to measure only individual learning styles (Coffield et al., 2004). Most of the traditional learning style models are out of date when considering new information technologies which use multimedia, hi-speed internet connections and large amounts of information (Kardan & Noorani, 2009). According to Hartley (1998) learning style is a student"s consistent way of responding to using stimuli in the context of learning. A learning style is a preferential mode, through which a student likes to master learning, solve problems, thinks or simply reach in a pedagogical situation (Allison and Hayes, 1996).

Dunn, as cited in Reid, (1987) defines learning styles as "a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience" (p. 89). Claxton and Ralston (1978) define the term as referring to a learner"s "consistent way of responding and using stimuli in the context of learning" (p. 7). Similarly, for Keefe (1979) learning styles are "cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (p.4). Dunn et al as cited in Clenton,(2002) assert that learning styles include variables such as "individual responses to sound, light, temperature, design, perception, intake, chronological highs and lows, mobility needs, and persistence, …motivation, responsibility (conformity) and need for structure…" (p. 56). The term "learning style" has been the topic of various research for more than five decades and is widely used in education and training. Slavin (2000) presented a simple example to describe learning style if a person learns the names of the people they meet by writing it down and reading it, then they are visual learners, whereas if they learn by hearing and saying the name

then their learning style is auditory. However, Suski (2002) indicated that there is no generally agreed definition for the term learning style.

The term learning style has been defined in several ways by many authors, yet the most representative definitions refer to two essential aspects: the learning style represents an individual,s preferred ways of responding (cognitively or behaviourally) to learning tasks which change depending on the environment or context (Peterson, et al., 2009), and the learning style refers to the idea that individuals differ in regard to what type of instruction is most effective for them (Pashler, et al., 2008). Starting from these two perspectives, it is noticed that the learning style represent a complex issue, both for students and teachers. From the students" perspective, the learning style indicates a general preference for learning and encompasses cognitive, affective, psychomotor, and physiological dimensions (Knowles, et al., 2005). On the other hand, taking into account the teachers" perspective, the fact that students have different leaning styles represents a constant challenge, because the optimal instruction presupposes diagnosing individuals" learning styles and tailoring instruction accordingly (Pashler et al., 2008).

2.6.1 Learning Style Dimensions

As mentioned earlier nearly twenty different dimensions of learning styles have been identified so far. Information in Table 2.2 provides a summary of the various dimensions identified together with their brief definitions. When the table is analysed carefully, it can be seen that though some of the dimensions are given separately, they actually overlap. An example of such an overlap is the field independent field dependent versus analytic and global learning styles.

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Table 2.2: Overview of Some Learning Styles

Verbal/Linguistic Musical Logical/Mathematical Spatial/Visual Bodily/Kinesthetic Interpersonal Intrapersonal	The Seven Multiple Intelligences; Ability with and sensitivity to oral and written words. Sensitivity to rhythm, pitch, and melody. Ability to use numbers effectively and to reason well. Sensitivity to form, space, colour, line, and shape. Ability to use the body to express ideas and feelings. Ability to understand another person"s moods and intentions. Ability to understand oneself: one"s own strengths and weaknesses.
Visual	Perceptual Learning Styles; Learns more effectively through the eyes (seeing).
Auditory Tactile Kinesthetic Group Individual	Learns more effectively through the ear (hearing). Learns more effectively through touch (hands-on). Learns more effectively through complete body experience. Learns more effectively through working with others. Learns more effectively through working alone.
Field Independent Field Dependent	Learns more effectively sequentially, analysing facts. Learns more effectively in context (holistically) and is sensitive to human relationships.
Analytic Global	Learns more effectively individually, sequentially, linearly. Learns more effectively through concrete experience and through interaction with other people.
Reflective Impulsive	Learns more effectively when given time to consider Options. Learns more effectively when able to respond immediately.
Converger	Learns more effectively when able to perceive abstractly and to process actively.
Diverger Assimilator Accommodator	Learns more effectively when able to perceive concretely and to process reflectively. Learns more effectively when able to perceive abstractly and to process reflectively. Learns more effectively when able to perceive concretely and to process actively.
Extraverted Introverted	Myers-Briggs Type Indicator (MBTI). Learns more effectively through concrete experience, contacts with and relationships with others. Learns more effectively in individual, independent learning situations.
Sensing Intuition Thinking Feeling Judging Perceiving	Learns more effectively from reports of observable facts, from meaningful experiences, from impersonal and logical Circumstances, from personalised circumstances and more effectively by reflection, deduction, analysis, and process that involve closure.
Right-Brained Left-Brained	Right and Left brained learning styles learns more effectively through visual analytic, reflective, self-reliant learning. Learns more effectively through auditory, global, impulsive, interactive learning.

Source: (Reid, 1998, p. x).

The scope and depth of learning styles vary because it seems impossible to limit a person‟s learning style only with a certain dimension, that is, it cannot be said that a person is only visual, audio or kinesthetic. Ehrman and Oxford (1995) assert "Naturally, not everyone fits neatly into one or another of these categories to the exclusion of the other, parallel categories such as (visual, auditory, and kinesthetic) (p. 69). This view is also supported by Willing (1988), who asserts that at any period in the history of methodological fashions, there is usually the covert assumption of one particular learning style as basic. [However,] what makes the current interest in learning styles new is that several different ways of learning are now held to be equally valid" (p. 6). Kroonenberg (1995) adds another reason for so much interest in learning styles currently by indicating that all students ought to be given extensive opportunities to learn through their preferred style.

2.7 Study Habits

Psychologists as well as lay persons have attempted some definitions of the word "study" To some of them, study means hard work and is usually associated with school work. To others, study is applicable to other situations in life other than academic work. Mace (2002) pointed out that study is a systematic acquisition of knowledge and an understanding of facts and principles that call for retention and application. Kelly (1998) stated that study is the application of one‟s mental capacity to the acquisition, understanding and organization of knowledge; it often involves some form of formal learning. Crow and Crow as cited in Okorodudu (2000) explained that study is a programme of subject matter mastery which involves hard work. However, study involves the individual's thinking, feeling, personality, social interaction, physical activities and health rather than mere learning of facts on the thought system for the purpose of recall when asked. For those who belong to the

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school of thought that study is not only applicable to academic work, Olatubosun as cited in Oladele (2000) explained that a teacher is studying when he examines the results of an experiment, a lawyer when he or she prepares his or her case, a salesman or woman when he or she learns about his or her products and a citizen when he or she tries to understand the issues in an upcoming election. Studies require time spent in a deliberate attempt to learn. It should be differentiated from simple leisure to reading.

Ogbodo (2010) defined habit as a pattern of activity which, through repetition, has been learned to the point that it has become automatic and can be carried on with a minimum of conscious effort. Habits, according to Farrant (2004) are established patterns of behaviour. According to him habits do not require conscious efforts. They are acquired behaviours which occur spontaneously, that is without thinking. „Study habit" is the amount and kinds of studying routines which the student is used during a regular period of study which occurred in a conducive environment. Effective study habit refers to a situation in which a learner studies regularly to achieve maximum success in his/her school work.

Crede and Kuncel (2008) explained study habits as study routines, including, but not restricted to, frequency of studying sessions, review of materials, self-testing, rehearsal of learned materials, and studying in a conducive environment. Lastly, students" attitudes toward the act of studying (Crede & Kuncel, 2008) are referred as „study attitudes". Studying is essential, so there is nothing quite so pleasing in the world of education as to the ones coming along with much knowledge about the subject matter than those who are walking into an examination with the blustery confidence. At the same time, despite the fact that, there are many temptations when

one sits down for study still they can concentrate studying because they have a goal to achieve. The most important study habit is recognizing that one is responsible for the successes and also failures. Taking on this responsibility entails the understanding that the priorities, decisions, habits, and resources all establish the success one has, or does not have with studying (Donaghy, 2009).

Study habit, therefore, refers to learning which leads to the achievement of a learners" goal, through a prescribed pattern of study behaviour. Study habit is a technique or a strategy used every time a person is studying. Some students would have the same study habits or may have a different one which depends on whether a specific study habit is effective for them. Students may use different kinds of techniques. In general, there is the expectation that students with good study habit perform well academically whilst students with poor study habit perform inadequately (Ahiatrogah, Deku & Dramanu, 2008; Edusei, 2007; Essuman, 2003; Nyarko-Sampson, 2004).

2.7.1 A Typology of Study Habits

Ogbodo (2010) stated that, there are some known study/reading habits which have either positive or negative orientation. They are grouped into: Hobbial, Recreational and Concentration which produce positive effects while deviational has a negative effect

2.7.2   Hobbial

A hobby is an activity one does because he derives some joy and satisfaction in doing it. After formal education attainment, some people like reading as their hobby. Its purpose is to widen the readers" horizon in things like, educational, religious, political, economic, current affairs, fiction and non-fiction (Mace, 2002). The practice of reading as a hobby makes one to be versatile in knowledge in many areas and the

person can discuss knowledgeably with others. This type of reading is a positive one to learning not only in developing mental reasoning but also in helping the person to satisfy his interests and aspirations (Donaghy, 2009).

2.7.3 Recreational

Fundamentally, reading for recreation or relaxation is very common among the education elite. People who have gainful employment spend the whole day in the offices trying to solve problems related to the jobs they do (Donaghy, 2009). When they come back from work, they normally desire a change by reading books, newspapers and other written materials which are different and of interest to them (Deku & Dramanu, 2008). Students should be encouraged to read magazines instead of reading text books all the time. Students, who read magazines at intervals learn to relax, cool their brain and avoid mental fatigue. This type of studying produces positive results as it keeps the students" interests helps them to acquire more knowledge and makes for a disciplined life in the school. In most cases, its effect in inducing sleep and rest after tedious reading in the classroom or the library adds to good health habits (Deku & Dramanu, 2008). Contrary, most distance learners think recreational reading will mean time wasting since they already have limited time after job. However, Distance Learners should consider recreational reading since according to Ogbodo (2010) it helps to relax, cool their brain and avoid mental fatigue.

2.7.4 Concentration

The concentration reading according to Ogbodo (2010) is the most important one that provides the desired outcomes. It is the bedrock and the result-oriented reading which makes for achievement. Researches by eminent scholars of language arts have come up with several formulae for effecting positive results in a learning situation. These

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include the S4R, (Unoh 1994), Robinsons" (1991), SQ3R and Rosemary "L" method (Ogbodo, 2002), recommended for use in school by counsellors. The techniques are: SQ3R technique (Robinson, 1991).

S-Stands for survey: This means having a birds" eye view of the contents, chapters, going through the headline and sub-headings to the end in order to have a general impression of the written material.

Q-Stands for Question: This involves asking questions about what to read or turning the various headings: sub and main into questions. According to Ogbodo (2002), asking these questions get one actively involved in the study about what to be done.

R1-(i.e. first R) Means Read: Read the chapter or passage carefully to pick out answers to the questions which were formulated. In this context, concentration is the watch word, as one has to avoid all forms of distractions. In the course of the reading, one has to look for answers to the questions.

R2-(i.e., the second R), Means Recite: The reader is required to recite to himself or to a friend or to write down all the salient points he shifted from the passage. The ability to do this is a good proof of understanding of the passage. Students should be encouraged to repeat the, facts several times.

R3- (i.e., Third or last R) Means Review or Revise:

At the end of the four steps above, the reader should go over the passage for better and more permanent understanding of the passage read. The reader should attempt to answer the questions he formulated in step two above. This could be achieved by going through the notes on the margin, underline sentences and phrases. Re-reading

the passage carefully to answer the questions for the sake of a better understanding of the passage means actually studying. Revision may be resumed periodically so as to keep the details fresh and familiar in the memory, and to be used when required like in an examination.

2.8 The Rosemary (L)

According to Ogbodo (2002), this is another useful reading/study method and is most suitable to study large materials, the study of difficult materials and for preparation for tough examinations like the Senior Secondary Certificate Examination (SSCE), Junior Secondary School Certificate Examination (JSSCE), General Certificate of Education (GCE), O/A, level, Degree examinations. This method is used in higher institutions of learning. The method calls for distributed learning and distributed practice. Explanations of ROSEMARY (L)

R: - Repetition: you read the material over and over again, re-read many times as you can to make it completely familiar and get used to the words inside the material or topic(s) treated.

O=Over-Learning: -Here, the repetitive reading and re-reading again and again will produce over-learning of the material to the extent that if you have to forget any part, that part will be minimal.

S= Summarization: - For effective study habit, let your summary be short and straight to the point.

E= Enumeration: - this is a follow up to the last step; enumerate the major points in a linear manner, the most important points coming first. You can write them down so that you will not forget.

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M=Mnemonics: Devise mnemonics for important ideas, principles, concepts, and formulae. This is to help your immediate recall and reutilization of such ideas and formulae.

A = Application: - Apply the material learnt to your personal life and daily activities.

R = Revision: - Revise all that you have done up to this stage. Give yourself thorough revision, bringing everything learnt to memory.

Y= Yes: - I know it now! I can apply it to any situation of my life to impact my world

In using L which means linkage: This means you link the materials read to practical daily living to enable you internalise the facts.

2.8.1 Deviational: This type of reading according to Ogbodo (2010), the reader deviates from the actual reading and pretends to be reading. If this habit is not curbed in students, it may lead to loss of interest in the acquisition of knowledge. Studying or reading textual materials by this method takes the form of Brown study or Browsing. Result of this type of reading is a negative one because the person deviates from the norms and rules of actually studying.

2.8.2   Brown Study

In this context, the mind of the reader wanders away when he or she opens a book. He looks at the print without actually grasping anything. Looking refers to the physical use of the facial structure in a particular direction, in the case of the book as target for the looking. On the other hand, seeing connotes the extra application of the eye as one looks. Focus is necessary if the use of the eye will be meaningful. The ocular nerves are employed in order to use what one looks at, for the brain to pick the message for

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future use if necessary. Brown study depicts deceit of oneself. Students should be advised to change to recreational reading immediately the mind begins to wander away while one is reading.

2.8.3 Browsing

This practice refers to reading of a material without any definite plan or interest. This is also known as glancing through (Ogbodo, 2010). This type of reading is common among people who saunter into a bookshop or a public library and pick up printed materials to see if there is anything of interest. For example, one can browse through newspapers and magazines to pick up some worthy news by a quick glance through headlines or sub headline. In such a case it may produce a positive result as one becomes interested and decides to buy or borrow such printed materials (Deku & Dramanu, 2008). These study habits by students are defence mechanisms to satisfy parents and teachers. Deviational studying in all its forms result in learning malpractices, failure in examinations, learning frustrations, loss of self- concept, school drop-out. The literature on topology of study habit implies that students should consider the purpose for which they are studying before adapting a strategy (Ogbodo, 2010).

2.9 Academic Achievement

Academic achievement is defined as successful completion, through effort, of the acquisition of academic content and skills. Achievement is defined as measurable behavior in a standardized series of tests (Simpson & Weiner 2009). The tests are usually constructed and standardized to measure proficiency in school subjects. The most highly valued method of determining whether a successful completion has taken place for a learner is quantitative in nature. In other words, numbers (in the context of

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grading and testing) are used to indicate whether a student has been successful or unsuccessful in mastering academic content and skills (Simpson & Weiner 2009). A student who scores 90 per cent (where 90 per cent equals an A) is deemed to have achieved, where as a student who has 18 per cent is deemed not to have achieved. A student who takes a standardized test in writing and scores at a 99th percentile is regarded as an achiever, while a student who scores at a 13th percentile is seen as a non-achiever.

According to Steve (2000), academic achievement is distinguished from academic achievement in that academic achievement is long-term (end) while academic achievement is measurable at any point in time (continual). In other words, achievement can be measured as stagnating, falling or improving over a long period. Steve (2000) further classified activities that occur in achievement as academic achievement index, for instance, students" achievement based on reading, selection of one or more schools within each district, among others. According to him, satisfactory academic achievement award is given to recipient who maintains satisfactory academic achievement and progress towards, the attainment of high school certificate. This is to suggest that academic achievement is cumulative and progressive: it means that academic achievement cannot be attained within a short period or at a slot. What this indicates is that academic achievement culminates and influences academic achievement.

Achievement is defined as the observable or measurable behavior of a person in a particular situation usually experimental situation (Simpson & Weiner, 1989). This means that achievement measures the aspect of behavior that can be observed at a specific period. To determine achievement, a achievement test is conducted. Steve

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(2000) defined achievement test as the type of mental test in which the subject is asked to do something rather than to say something. Achievement test is the type of test which throws light on the ability to deal with things rather than symbols (Steve, 2000).

In relation to educational research, academic achievement of a student can be regarded as the observable and measurable behavior of a student in a particular situation. For example, the academic achievement of a student in English includes observable and measurable behavior of a student at any point during a course. In English a students" academic achievement consists of his/her scores at any particular time obtained from a teacher- made test. Therefore, we can equate academic achievement with the observed behavior or expectation of achieving a specific statement of or statement of educational intention in a research. Academic achievement of students consists of scores obtained from teacher-made test, first term examination, mid-term test, and so on (Steve, 2000). Academic achievement has always been influenced by the learner"s previous education achievement (Staffolani & Bratti, 2002), parents" income and social status (Considine & Zappala, 2002), students social and emotional status or wellbeing (Erdogan et.al.2008), the school environment (Sparkles, 1999; Sentamu, 2003) learner,s attitude (Erdogan et. al., 2008), among other factors.

2.10   Empirical Review

This section of the literature review dealt with the various thematic areas in the stated objectives of the study. The section was structured along the following sub-headings such as the nature of learning styles, study habits that students apply to their studies, relationship between learning style and academic achievement of students, the effect

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of study habits and academic achievement of students and the effect of demographic variables on the learning styles and study habits of students.

2.10.1 Nature of Learning Styles and Study Habits Adopted by Students

The nature of study habits and learning styles employed by students in their studies has been explored by researchers. For instance, Esia-Donkoh, Bentil, and Quashigah (2017) in their research titled "Study habits of students of public basic schools: Perceptions of the present and the future." it was reported that the dominant study habit practiced by the children was examination related, followed by homework and assignment, concentration, reading and note-taking, and time management. These results implied that the students were conscious of their examinations and that examination is a vital component of student"s study habits.

Another study conducted by Xienono as cited in Esia-Donkoh et al (2017) disclosed that study skills can be a combination of several techniques including time management, note-taking, and self-testing. The position of the above author suggests that effective study habits involve these components. In their quest to explore the various components of study habits Siahi and Maiyo (2015) delineates study habits to include the attitudes of students towards their work and their sense of responsibilities. The authors further maintain that study habits of students encompass effective planning; unvarying class attendance, taking notes during classes; concentrating on studies; understanding content and avoiding rote learning; asking for clarifications from friends and teachers on what is taught in class; as well as preparing and following a timetable. It could be deduced from the concept of study habits encompasses varied variables of interest. However, in this study, study habits of

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students would be accessed on the examination, reading and notetaking, homework and assignment, concentration and time management.

Besides, study habits of students, another concept that has caught the attention of researchers in recent times is the learning style preferences of students. According to Brown, Zogni, Williams and Sim (2009), one of the variables within the framework of learning that has received considerable research is the learning styles of students. In their study which sought to compare students" learning styles preferences in public and private senior high schools in Lagos Metropolis of Nigeria, Alade and Ogbo (2014) discovered that visual learning style was dominantly used more than auditory and kinesthetic learning styles. This finding suggests that different types of learning styles exist amongst students in a school at the same time. Winn and Grantham (2005) realize from their study that everyone has different learning style preferences, and as such, students learn in diverse ways.

Research has identified that some students favour a singular (for example, visual) mode of learning, while others tend to favour multiple modes of learning (for instance, auditory and visual). In another study, Adeniji (2015) discovered that students prefer kinesthetic learning style more than auditory and visual learning styles. Implicitly, it could be said that these students like to read, write and do physical activities while learning than hearing and seeing. Nevertheless, one could observe that these studies were conducted in second cycle institutions, and also foreign to the Ghanaian context. The question that continues to linger in the researcher"s mind is "Would similar results be found in the Ghanaian Basic Schools? Additionally, these findings have proven that school learning style could differ from

school to school and student to student which offers opportunities for further studies to be conducted in specific contexts.

2.10.2 Demographic Variables and Students Study Habits and Learning Styles

Researchers have explored personal factors of students that influenced their study habits and learning style preferences. For example, Khurshid, Tanveer, & Qasmi, (2012) noted that class level affected study habits of students where those in a higher class displayed better study habits than those in lower class. On how the parental level of education affect the study habits of students, studies such as Khan (2016) and Showkeen and Khan (2014a, 2015), Bajwa (2005) and Khan (2002) discovered no statistically significant difference between parental level of education and students study habits. Contrarily, Isangedighi (1997) disclosed a statistically significant difference between parental level of education and student study habits. Other researchers have focused on the effect of how students age affect their study habit. Alshammari, Saguban, Pasay-an, Altheban, Al-Shammari (2017) revealed in their study that there is no statistically significant difference between student age and their study habits. However, scholars such as Riaz, Asma and Niaz (2002) discovered in their studies that age of students is a critical determinant of students" study habits.

On learning styles, El Tantawi (2009) discovered that learning styles did not differ significantly between male and female students. Likewise, Chianson, Aligba and Jimin (2015), Diaz and Cartinal (2005) and Sara (2010) discovered among other factors that student gender do not impact significantly on their learning style preferences. Contrary, empirical findings from (Marcus, 1999, Fox, 1999 & Aries, 1996) have all disclosed that students gender matters significantly in the discussion of their learning style preferences. Other researchers have focused on the effect of age on

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the learning style preferences of students where they observed significant difference in the learning styles preferences of students (Dunn & Grigg, 1998). However, Chianson, Aligba and Jimin (2015) discovered that age was not a significant determinant of learning style preferences among students. Similar result was discovered by Cornu (1999) where it was found no significant difference in the learning style preferences of students due to age.

In investigating the effect of form/class of students and the learning style preferences of students, Gappi (2013) and Aga (2005) found that the learning style preferences of students is not contingent on their form or level. Contrarily, D'Cruz, Rajaratnam, and Chandrasekhar (2013) disclosed no significant difference between students form or level and their learning style preferences. Previous studies (Dunn, 2003; Dunn, Honigsfeld, Doolan, Bostrom, Russo, Schiering, Suh, & Tenedero, 2009) have all witnessed a non-statistically significantly relationship between parental level of education and students learning style preferences. In their studies, Schulze, Snowman and McCown (2016) and Yousef (2016) realized a statistically significantly difference between parental level of education, students learning style preferences and their academic achievement.

2.10.3 Relationship between Learning Styles and Students' Academic Achievement

Researchers have investigated the link between learning styles and students academic achievement in different contexts. Previous studies (Cano & Garton, 1994; Dunn, 2000; Sutliff & Baldwin, 2001; Alade & Ogbo, 2014) have sounded the strong influence of students learning styles on their achievement. It is inferred from this finding that learning styles enhances and eventually leads to superior academic

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attainment of students. In this context, improvement in learning environment mediates the relationship between learning styles and student academic achievement. Conversely, learning style preferences of students does not have any link to the academic achievement of students. Previous studies by (Fatokun & Eniayeju, 2014a & Norman, 2008) have gathered empirical proof that learners" academic achievement is not greatly dependent on their learning style preference. Therefore, the literature on previous researches has demonstrated inconsistent results on the relationship between learning style preferences and students" academic achievement. This study seeks to find out the relationship between students learning style preferences and students" academic achievement in the context of the study.

2.10.4 Effect of Study Habits on the Academic Achievement of Students

Much research has been conducted into the effect of study habits on the academic achievement of students. However, research findings "are at best not clear cut, and at worst contradictory" (Blachford & Mortimer, 1995, p. 23). Bentil, Esia-Donkoh and Ghanney (2018) concluded that study habit is vital in determining academic achievement of students. Likewise, Sarwar et al. (2009) concluded that overachievers possessed better study habits than underachievers. Similarly, other studies like Credé and Kuncel (2008) and Nuthana and Yenagi (2009) support the findings of earlier studies that study habits impact academic achievement of students. Hoeffner (2010) discovered an inconclusive result where he was unable to determine the relationship between these variables. Based on this inconclusiveness, this study would test the effect of these variables to either confirm or disconfirm these findings.

2.10.5 Learning Styles Adopted by Students

Numerous studies have shown that learning style differences exist and that they affect students" attitudes toward learning as well as their achievement in school (Cano-Garcia & Hughes, 2000; Collinson, 2000; Felder & Brent, 2005; Felder, 1996; Fine, 2003; Honigsfeld & Schiering, 2004; Kolb & Kolb, 2009; Lovelace, 2005; Minotti, 2005; Tseng, Chu, Hwang, & Tsai, 2008). This is a reasonable, though not uniformly accepted, explanation for the different results achieved by the same students under the instruction of different teachers (Felder & Brent, 2005). Other factors influencing student achievement have certainly been identified and explored, including psychological threat, racial context, motivation, self-regulation of learning, socio-economic status, language proficiency, and student-teacher relationships (Bembenutty, 2008; Helm, 2007; Herman, 2009; Walton & Spencer, 2009). Despite continued debate about the direct effects of learning styles on academic achievement, it appears there is strong evidence that learning styles influence students" attention to and perceptions of learning experiences (Kratzig & Arbuthnott, 2006). This, in turn, may influence achievement and success in school.

De Vita"s paper (2001) mentions that the cultural situation affects international and home students" learning styles in the class of international business management. To find the link between culture and learning styles he used Felder and Solomon"s Index of Learning Styles (ILS) (Felder & Soloman, 1999). Using a four-quadrant model for ILS which is a revised version of Kolb"s (1976, 1984) model, there are four types of learners. The first types of learners are called Diverges; prefer concrete experience and reflective observation. The second called Converges are good at abstract conceptualization and active experiment while Assimilators the third type are those

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who prefer abstract conceptualization and reflective observation. The fourth type called Accommodators who learn by concrete experience and active experimentation.

Felder and Solomon"s (1984) ILS have a 44-item questionnaire, which was first applied to engineering students. As explained in detail in the above sections. It seems obvious that culture impacts learning styles, because culture influences our daily lives, processing information, communication with other people, ways to solve problems, preferences of thinking and making connections with other subjects. De Vita applied the questionnaire in one of his undergraduate international business management class that had 68 students; 43 of them were international students from 20 different nationalities in England. He mentioned that the instrument is subject to ongoing factor analysis for validation purposes and since he has limited sample size, it was not possible to analyze leaning styles of each nationality. No information about any reliability or validity of the research was given. As a result of De Vita"s research, since English is a second language for most international students, they could have difficulties representing themselves using English, so they prefer a more visual style of learning while students with English as a first language prefer to represent themselves verbally (De Vita, 2001).

Richardson et al. (2007) Buckley, et al. (2010) and others only recorded demographic data, Other studies which were closely related works, were Severiens and Ten Dam (1994), Lindblom-Ylänne and Lonka (1999) Hermanussen and Booy (2002), and Ogol (2000), warranting this current investigation. Richardson et al. (2007) study had population 351 students (268 undergraduates and 83 Masters Students). Thirty-four (34) out of 46 were teachers. No gender segregated data was sought. As earlier established in the learning conceptions literature review, Fuller (1999) did not carry

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out any gender related investigation among the 279 students, for his studies on studying approaches.

Another research study by Zhenhui (2001) with East Asian students provides data about international students" preferences. Korean, Chinese, and Japanese students prefer visual learning styles. However, this pioneering effect contradicts other studies. If they don"t have any visual supporting materials, lectures, conversations, other teaching efforts do not have a meaning for them. These data are collected in traditional East Asian classrooms. Teachers used the blackboard and textbooks, so teachers and students were directly within eye contact. East Asian students were identified as being strongly auditory and visual (Reid, 1987; Suh and Price, 1993, Oxford & Burry-Stock, 1995).

Some critics of learning styles theory have argued that orientation does not necessarily imply proficiency (Cuthbert, 2005) and claimed that learning approaches are flexible rather than fixed (Cuthbert, 2005; Felder & Brent, 2005; Hall & Moseley, 2005). However, many experts affirm the value of educating students about their individual learning preferences, noting the benefits of metacognition and empowerment resulting from such experiences (Felder & Brent, 2005; Honigsfeld & Schiering, 2004; Kolb & Kolb, 2009). Developing a greater understanding of the learning process and the ways by which they learn best improves students" perceptions of their ability to learn, encourages ownership of the learning process and outcomes, and provides increased motivation for doing learning and overcoming potential obstacles (Kolb & Kolb, 2009; Noble, 2004). Further, by learning to recognize effective methods for completing learning tasks and mastering new material, students may become more successful at learning how to learn and are more

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likely to become lifelong learners and maximize their true potential (Felder, 1996; Kolb & Kolb, 2009; Minotti, 2005).

2.10.6 Factors Affecting Learning Styles Adopted by Students

There are various factors that affect learning styles. Several studies have indicated that learning styles are affected by gender, age, cultural heritage, ethnic background and maturity. Several studies have also determined that learning styles are affected by other factors. Dunn and Griggs (1998) determined some factors that affected learning style and such as gender, age, and culture. These factors have to be considered when identifying learning style preferences of students because they can influence learning outcomes.

Males learn in different ways to females. Several studies have determined that there is a difference between learning style preferences in term of gender. According to Raddon (2007) gender is generally considered as one of a range of variables in learning style studies. A study by Wehrwin et al. (2007) was conducted to explore differences between male and female undergraduate physiology students in terms of learning style preferences. The researcher implanted the VARK learning model as a framework and used a VARK questionnaire as the measure to collect data. The results showed that 54% of the female respondents and only 12.5% of the males preferred a single learning style. Among the female respondents, 4.2% were visual learners, 16.7% preferred textual learning materials and 33.3% were kinaesthetic learners. Within males, learning styles were evenly distributed among aural, read/write and kinaesthetic styles. Furthermore, 45.8% of female and 87.5% of males preferred multiple modes. In the female group, 12.5% of respondents preferred a bi-modal, while 12.5% preferred a tri-modal and 20.8% a quad modal learning style. In the male

student group; 16.7% preferred a bi-model, 12.5% a tri-model and 58.3% preferred a quad model learning style. Based on this result, the study was able to determine that male and female learners have different learning style preferences. Park (1997a) conducted a study to evaluate if there were differences between the learning style preferences of Mexican, Armenian- American, Korean and Anglo students. A sample of 1283 students from ten high schools from grades 9 to 12 were involved in the Park study. The study showed that, across the four ethnic groups female students have a higher preference for a kinaesthetic learning style, while male students were more tactile than female students.

Age plays a role in how individuals learn and receive information. Several studies have shown that learning style preferences have a direct relationship with the age of the learner. Jensen (2009) indicated that learning preference of the learner relied on his or her age. A study by Price (1980) stated that individuals in early childhood develop kinaesthetic and tactile skills prior to auditory skills. Thus, it can be implied that learners at different ages may use and vary in their learning styles preferences. Price et al. (1981) proposed that young children preferred kinaesthetic and tactile learning styles but slowly shift to visual learning styles as they get older. Using the Dunn and Dunn learning styles inventory, Hlawaty (2008) evaluated the interaction between learning styles and age among German learners within three age groups: thirteen, fifteen and seventeen years old. MANOVA showed significant differences among all three pair wise comparisons of age groups; thirteen versus fifteen, thirteen versus seventeen and fifteen versus seventeen years old. The researcher indicated each age stage has special learning requirements and concluded that learning demands vary according to age.

As stated in Esia- Donkoh et.al.(2015), a study conducted by Chan in 2001 was to assess the learning styles of 398 gifted and non-gifted Chinese secondary students. The students were divided into two age groups (11-13 years and 14-19 years). The study showed a significant interaction effect between younger groups and learning style. Chan noted that younger students interacted more with structured activities and games. Honigsfeld (2004) investigated the learning styles characteristics of 1637 adolescents from five countries based on Dunn and Dunn learning styles theory. Like the Hlawaty study, students were divided into three groups: 13, 15 and 17-year olds. The study showed significant differences for sixteen of twenty-two learning styles elements among the three age groups.

Another factor identified as impacted on learning style preferences was maturity. Wenham and Alie (1992) tested the relationship between learning styles and age among seven occupational groups, with participants ranging in age from 22 to 64 years. The researchers used a Gregorc style delineator and found significant differences between age and concrete-random dimensions for technicians and abstract-random dimensions for mechanical engineers. However, there were no significant differences between ages when all occupations were combined. Lincoln et al. (2006) examined the relationship between age and VARK theory learning style among students participating in English as a second language (ESL) classes. The study comprised 69 students from 17 countries, in age groups ranging from late teens to late 40s. The study reported a low positive correlation between age and the read/write learning style ($r = 0.197$) among all participants. Likewise, the result showed a small negative correlation between age and a kinaesthetic learning style ($r = -0.32$) for male students. The study also reported a moderate negative correlation between age and a Kinaesthetic learning style for male and female Mexican students

(r = - 0.42) and (r = - 0.48). Despite these studies reporting a correlation between learning styles and the age of learners, other studies indicate that there is no relationship between age and learning styles.

Culture also shapes people, who respond to things in the way that they are conditioned to respond to them. Kennedy (2002) describes culture as "not just a matter of mind over behaviour, it is also the (social) rules, beliefs, attitudes and values that govern how people act and how they define themselves" (p. 430). In this case culture is considered one of the factors which influence students" learning in schools. Nowadays, a typical classroom would contain students from different backgrounds and based on this, current educators have determined that learners from different backgrounds have different learning styles and preferences (Friedman, 2006). Guild (1994) states that "Using information about culture and learning styles in sensitive and positive ways will help educators value and promote diversity in all aspects of the school" (p. 21).

Dunn et al (1998) conducted a study among a population of African-American, Chinese-American, Greek-American and Mexican-American students. A sample of 300 students from grades four, five and six were selected from different areas of New York and Texas. The researchers used a Dunn and Dunn learning styles inventory (21 elements) to examine student learning styles. ANOVA was used to explore the interaction between ethnic groups on the learning style inventory subscales. The result showed African-American and Chinese-American students differed significantly in 15 of 21 elements. Within African- American and Mexican-American students, the ANOVA showed significant differences in 12 of 21 subscales. The comparison between African-American and Greek-American students showed significant

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differences in only 9 of 21 elements. The results also indicated that only 9 of 21 subscales were significant between Mexican-American and Chinese-American students. Furthermore, the statistical comparison between Mexican-American and Greek-American students presented the fewest number of significant differences in 6 of 21 subscales. The mean scores on the subscales for the Greek-American and Chinese-American students showed that for only 13 elements out of 21 there were significant differences between the two groups of students.

2.10.7 The Relationship between Learning Style and Academic Achievement

There have been a number of researches conducted to show the relationship between learning style and academic achievement, and which show that matching teaching styles to learning styles can significantly enhance academic achievement of students at the primary and secondary level (Griggs & Dunn 1984; Smith & Renzulli 1984). In addition to gender, age and culture, academic achievement has also been investigated to determine if it has any influence and effect on learning style preference. Nolting (2002) emphasized that students" academic achievement positively increases if they are aware of their learning style and how they learn best. The relationship between learning styles and academic achievement in different level of education was examined by researchers.

A study which evaluated the relationship between learning style and students" academic achievement was conducted by Wallace (1992) at four elementary schools in suburban Syracuse, New York. The study aimed to evaluate the achievement of elementary school students who preferred learning alone or with peers. A sample of 114 students was selected from grades three, four and five to respond to the Dunn, Dunn and Price learning styles inventory in the first phase of the study. Then, 17

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students who strongly preferred learning alone and 17 who strongly preferred learning with peers were selected for the next stage of the study. The student participants were introduced to a small group learning method and were given five lessons with the option of working alone or with peers each time. An ANCOVA was employed to evaluate the result which showed statistically significant differences between the two groups. Students who preferred to learn alone achieved significantly higher mean scores than students who preferred to study with peers. Students who strongly preferred to learn alone did not achieve significantly higher scores when they opted to learn alone, also students who strongly preferred to study with peers did not achieve significantly higher scores when they opted to learn with peers.

Yazicilar et al. (2009) conducted a study among fifth grade students in a social studies class to determine the relationship between learning style preference and academic achievement. A sample of 50 students participated in the study, divided into an experimental and a control group. The experimental groups were those who received an educational included audio, visual and teaching practices materials, while the control group received educational using teacher centered and primary school program methods. The results showed significant differences between the experimental and control groups in terms of academic achievement and retention.

A study by Bahar as cited in Bentil (2017) was conducted among 14-year-old seventh grade students to examine the relationship between learning styles and achievement in mini science projects. A sample of 80 students from two different primary schools responded to a Grasha-Riechmann learning style scale. This instrument consisted of 60 items with a five-point Likert scale to evaluate six learning styles; competitive, collaborative, avoidant, participant, dependent and independent. A MANOVA was

conducted to examine the relationship between students" learning styles and their academic achievement in the mini projects. The result showed a statistically significant connection between learning style and achievement in mini projects. The study was able to determine that those who belong to high achiever groups were independent, competitive and participative in nature, while those who had relatively lower achievement level were avoidant, dependent and learned best in collaborative groups.

Matthews (1996) conducted a study to evaluate the relationship between the academic achievement of high school students and learning styles. Nineteen high schools were selected from rural, urban and suburban areas of midlands, northern and southern of South Carolina. A sample of 6218 students was asked to complete the Kolb inventory and a demographic questionnaire from which the researcher obtained data on each student"s assessment of their academic achievement. The academic achievement used self-ratings with students determining their achievement in one of five categories; excellent, good, average, fair and poor. Data from 5835 students were used for this study. The result showed a significant effect between learning styles and the ratings of students with regards to perceived academic achievement. The convergent style had a higher mean (M= 3.60) on rating than accommodative, assimilative and divergent styles. High achievers tended to be convergers, while low achievers tended to be divergers.

2.10.8 Techniques that Could be Implemented to Improve Effective Study Habit Formation

According to Lajoie and Azevedo (2006) some techniques for effective study habit formation are as follows:

2.10.8.1 Private Time-Table

Each student should have a private time table. The daily study could be preferably divided into three periods per day. Subjects should be arranged in terms of relative importance. The best study time according to Ogbodo (2010) covers: 4 – 6.00 a.m., 3.30-4.30 p.m. and 8.00 -10.30 p.m.

If one"s ability to study and concentrate effectively lasts for one hour or less, the time has to be plotted within these time rages. One day must be left open as a free day from studying. Rest periods must be included at their appropriate spaces. The most suitable time is usually between 2 pm. and 4 pm. Time for social activities and evening time for watching the television has to be indicated as a controller and regulator of each student"s behaviour towards achieving the set goal (Ogbodo, 2010). The time table has to be reviewed and adjusted at the end of each term. Students should have personal timetable and be able to identify peak achievement and draw timetable to cover that. Peak achievement is the time you are able to read and concentrate best. Once the time table is drawn it should be followed rigidly and be reviewed intermittently.

2.10.8.2 Time Management

Orr (1992) reiterated that studying is a skill. Being successful in school requires a high level of study skills. Students must first learn these skills, practice them and develop effective study habits in order to be successful. According to Orr good study

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habits include many different skills: time management, self-discipline, concentration, memorization, organization, and effort. Time is an essential factor, you cannot study properly without considering it; hence time management is most certainly a study technique in itself. Given the hectic schedules of Junior High students, which need balance between academics and demands of their jobs, time management is really important. The schedule you develop should guide you in how to allocate the available time among academic works, extracurricular activities and social life activities.

Freeman and Morss (1993) states that for a study to be effective it should be regular, intense and should cover long periods. They further said, there should be at least three hours designated for studying to meet the goals of performing well in class. A student should also choose a place conducive for a better learning. It is where students can relax and concentrate on understanding the hand-outs and articles essential for the topic. To support Freeman and Morss on the basis of the number of hours to study, the teachers of Junior High students have clearly spelt out the number of hours students need to spend on each session of their course book. A learner is therefore expected to spend a minimum of three hours and a maximum of five hours on each session in the course book/module. This means that a Junior High student"s learner is expected to study at least three hours to equate one-hour class on campus. That is why it is advisable to manage a schedule to prevent overloading school works. Many students spent much of the time allotted for sleeping to cram their assignments that are due for tomorrow. It is unhealthy not to sleep for enough hours because it causes tardiness and tiredness during lectures. Landsberger (2007) also noted that having a regular time and place for studying and making decisions about priorities concerning time and goals make a good study habit. Studying is a matter of prioritizing.

2.10.8.3 The Daily To Do List

For most students, your course will entail too much work and your days will offer too little time. Your options to cope with this dilemma seem to be: make your days longer; lighten your study load; or, become more efficient.

The last option seems to be the preferred one. Increasing your efficiency is really a function of getting as much as possible done in the available time? Ask any really busy person how they manage their time and just about every one of these individuals will say they use some sort of list. The busier you get, the more important it is to write things down. The best way to handle a long and sometimes complex array of study tasks is to simply write them down and then decide where you will start. Here is one way you might try to organise your days (Orr, 1992).

Students are to buy an exercise book or some other diary type notebook which is rugged enough to sustain the wear and tear of student life. Use a new page for each day and write four column headings at the top of the page: Task, Priority, and Time and Done. Under the task column, list every job which currently needs attention. This will include homework, assignments which are due tomorrow as well as longer term projects due in four to six weeks. You can also include personal chores, domestic duties, working hours or any other tasks which need to be done that day. When noting these tasks, be certain to be specific. For example, it is just too general to say `Do a bit of history.' If you have just opened your history book and your best friend rings to invite you over to see a video, you might say to yourself, `Yes, I've done a bit of history. It would be far better to specify, `Read pages 126-138, history; do review question''s 1-6 at the end of the chapter.' That is a much more specifically stated task for planning purposes.

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The priority column is fairly straightforward. After listing all the tasks, read through them and assign a 1, 2 or 3 depending upon how important and urgent they are. The number one jobs, those that are both important and urgent, need attention today and should be done first. The number two jobs are less urgent and may be carried over until tomorrow, if time is tight. The number three jobs are least urgent and least important and you may even find that they don't get done at all after being carried forward over several days. Be sure to focus on the number one category, as this is generally going to include mark-earning study jobs preparation of essays and reports and revision for exams. Orr (1992) again said when in doubt about study tasks; get to those jobs which are going to earn you marks. The time column is simply your estimate of how much time you think the various tasks might take. By estimating the respective times for various tasks, you can prevent the frustrating experience of planning a day's work and then finding that you really need a week to accomplish all of the tasks.

The done column is reserved for ticks which you record after completing the individual tasks. Be certain to include this column and to use it, as it represents a reward after working through your task. Giving yourself a tick upon task completion might seem juvenile but it works. After reading a textbook for several hours, you might feel exhausted and drained. Yes, you have worked very hard at your reading and you think you understood the work, but is there anything to show for all of this hard labour? Generally, however, if you have been ticking off reading goals by sections, then at least you will have some evidence of work completed. A series of ticks can hold a surprising amount of reward value. Who does not like to feel that surge of fulfilment on ticking off a job as completed?

Thus, the daily to do list is a very efficient and functional way of organising your days. If you make positive and productive use of today by organising your tasks and your time, then you will have generated considerable momentum for tomorrow. After several days of efficient and productive work, you will feel great just paging through your study diary and seeing all of those ticks in the done columns.

2.10.8.4 Preventing Time Robberies

Time will be one of your most scarce, but important resources as a student. The days and weeks will fly by and before you know it, you will be sitting on the doorstep of the examination room, and one hopes of feeling confident. As time is almost as important as money, (some management experts say, `Time is money.'), it is vital for you to prevent time robberies. The robberies, by the way, are generally self-induced. Here are some pointers about how to protect your time (Orr, 1992).

2.10.8.5 Television and Radio

Students often say that they simply cannot survive long study sessions unless they have the occasional hit of TV. Alternatively, some have the radio blaring loudly to move them rhythmically along in their work. Some helpful hints about these electronic marvels: Plan your TV viewing, if it is necessary at all. Set the oven timer for thirty minutes and when the signal goes off, get back to your books. Consider standing up when you watch TV. It's much easier to move away from the set when the programme is over. Tell a family member or flat mate what you intend to watch and at what time you plan to return to your studies. If you live alone or with other TV addicts who really cannot afford television time, then seriously consider moving the set to the least comfortable place in the house (Orr, 1992).

2.10.8.7 Time-Robbing Visitors

When people come to visit, even if it's just crouching by your desk in the library where you're trying to study, they can rob you of valuable study time. Studies have shown that in the business sector, colleagues who drop by to visit a workmate will stay for an average of seventeen minutes. Several visits a day can certainly drain the productivity potential of the organisation. How do you protect your study time from these visitors? Try the following suggestions: Post a Do Not Disturb sign on your door, if you have a door to your study area. Better still, lock the door. If a visitor invades your study area, stand up immediately. Do not offer the visitor a chair. Walk the visitor away from your desk and agree on a mutually convenient meeting time, if a meeting is necessary.

Students should keep any chairs near your study area stacked high with computer print-outs and heavy reference books. Visitors will have no option but to stand, and standing conversations take far less time than those conducted while sitting. Be assertive. Just tell any visitor that you're busy. Arrange a mutually suitable time to meet if you want to discuss something (Orr, 1992). To achieve successful Junior High students learning, learners need to take their own responsibility for teach (Garrison, 1997). Use of learning strategies (study habits) and maintaining self- motivation are the main elements contributing to Junior High student‟s learners‟ self- learning (Anderson, 2007). Learning strategies can be defined as thoughts and behaviours intended to influence the learner‟s ability to select, acquire, organize, and integrate new knowledge (Guo, 2011; Filcher & Miller, 2000). Knowing how to properly use strategies can contribute to remaining productive in the lifelong learning environment (Weisburg & Ullmer, 1995).

2.11 Learning Strategies

Learning strategies are categorized into cognitive, metacognitive and resource management strategies (Guo, 2011). Researchers suggested that metacognitive strategy (White, 1995) and resource strategy (Filcher & Miller, 2000) may provide the most promising tools to enhance adult students" success in Junior High student"s education. Metacognitive strategies are assessed by one large scale that includes planning, monitoring, and regulating strategies. The tactics which are included in planning include setting goals, skimming the material, generating questions; used in monitoring include self-testing, attention focus, employing test-taking; and used in regulating include adjusting reading rate, re-reading, reviewing, utilizing testing-taking (Ogbodo, 2002).

The resource management strategies concern the quality and quantity of the task involvement and include resource management, study environment, effort of time management, and support of others (Guo, 2011). According to Pintrich, Smith, Garcia and McKeachie (1993), „Resource management strategies include a) managing time and study environment; b) effort management, c) peer learning, and d) help-seeking."
According to Ogbodo (2010), studying presents problems to students in various forms. Some students have the eagerness to study but may not know the strategies to study effectively. Students from this group can benefit if an effective study programme is organized in the school. A planned programme of study is a good strategy to motivate students to explore, ask questions and solve problems that confront them.

Among the objectives of education is the clause "the need to help the individual to develop his/her full potentials". This cannot be achieved without a proper planning to

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make students develop positive attitudes towards learning, one of the reasons for having a good study programme in the school environment. Providing a study programme is an important strategy for school management. In actual fact it helps students to make intelligent choice and adjustment. As we all know, students are proned to make many mistakes if they are not controlled or directed. A good plan for studies is necessary and students should learn to use their time profitably for the benefit of the school and themselves. A well-planned study programme gives students the freedom to pursue their interests in school subjects and such freedom leads to the development of their personalities. During this study period, individuality is developed and recognized.

2.12   Study Habits and Academic Achievement of Students

As typically used in the broader literature, study skills refer to the student"s knowledge of appropriate study strategies and methods and the ability to manage time and other resources to meet the demands of the academic tasks. Study habits typically denote the degree to which the student engages in regular acts of studying that are characterized by appropriate studying routines (e.g., reviews of material) occurring in an environment that is conducive to studying. Finally, study attitudes are usually used to refer to a student"s positive attitude toward the specific act of studying and the student"s acceptance and approval of the broader goals of a college education.

Nonis and Hudson (2010) found that study skills or habits would have a significant direct relationship with the academic achievement of college students. Study habits or strategies such as paying attention in class, being on time, taking good notes, completing homework in a timely manner, and reading the study material before a lecture would have a significant direct relationship with the academic achievement of

college students. Although not every learning strategy or study habit produces useful results in terms of academic achievement, it would be expected that students who possess good study habits in general are better performers than those students with poor study habits. There is some empirical evidence that shows that study habits impact academic achievement. Borg, Riding and Falson (1999) and Okpala, Okpala and Ellis (2000) reported that good study strategies positively influenced achievement in economics courses. Nonis and Hudson (2010) stated that variability in motivation across students may dampen the association between ability and achievement. Similar to how motivation interacts with ability to influence academic achievement, behaviours such as study efforts can interact with ability to influence achievement. Rooney (2003) noted that children whose parents have higher income have better access to quality schools, and these same parents shape the tastes and expectations of their children. They are also able to better nurture the intellect of their children by assisting and directing their studies. Nyarko-Sampson (2004) agrees with this assertion.
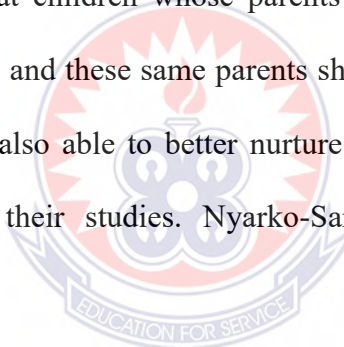
2.13 Conceptual Framework

The conceptual framework of the study is presented in Figure 2.1.There are three sets of variables in this study. Learning styles and study habits are the independent variables while students‟ academic achievement is the dependent variable. The learning styles included auditory, visual, kinesthetic learning styles. That of the study habits included homework/assignments, time allocation, reading and note taking, concentration, and time management. The study also investigated the extent to which pupil‟s personal factors such as gender, form or level and age of pupils influenced their learning styles and study habits. The dependent variable was the academic

achievement of the students that comprised the four compulsory subjects namely, English Language, Mathematics, Integrated Science, and Social Studies.
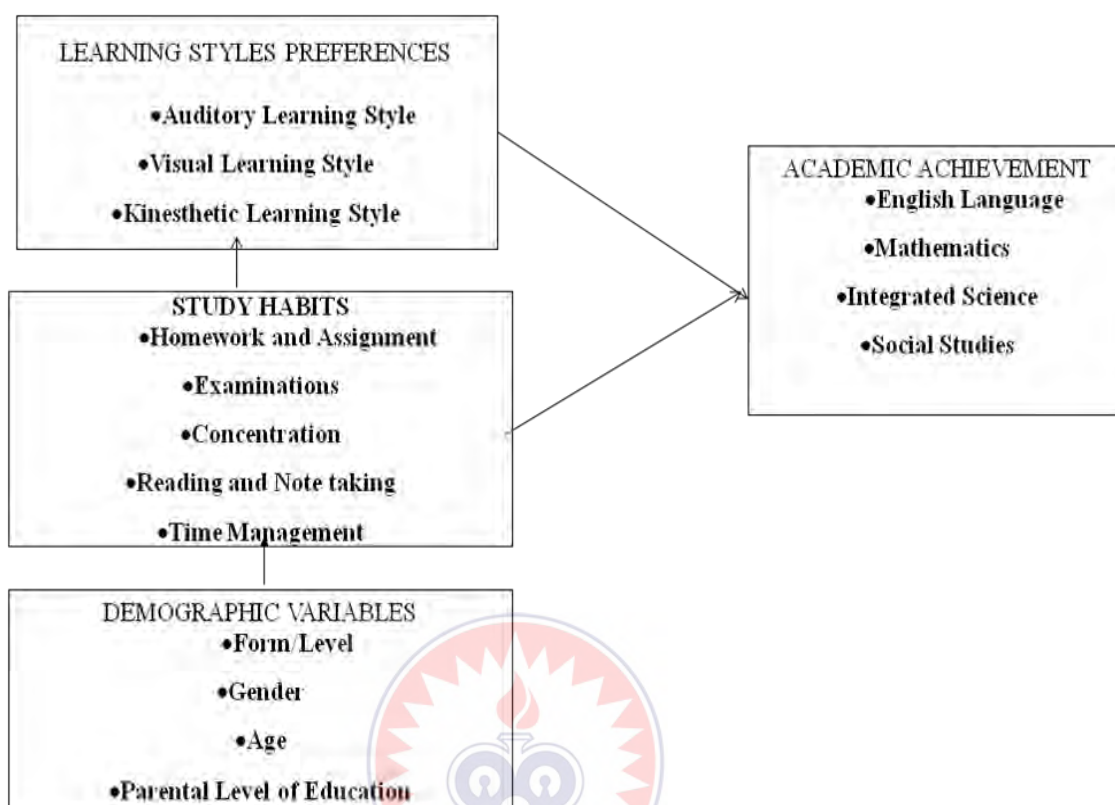
Figure 2.1 Conceptual Framework

Source: Designed by Researcher, 2018

2.14 Summary of Literature Review

The literature reviewed has indicated that learning styles and study habits of students are crucial in ensuring better academic achievement in schools. However, the literature revealed contrasting findings on the relationship between learning style and students" academic achievement and the effect of study habits on the academic achievement of students. Therefore, this study aims to contribute in providing empirical evidence to further understand the relationship and the effects between these variables.

2.15 Chapter Summary

In this chapter literature was reviewed on the three variables of the study, thus learning styles preference, study habit and academic achievement. Learning styles and study habits are grounded in the following theories: Fleming's VAK Learning Style (Fleming, 1995), Kolb's Experiential Learning Model (Kolb, 1984), Dunn and Dunn's Learning Style Theory (Sternberg, 1997), Information Processing Theory of Learning (Schneider & Bjorklund, 1998), Bandura's Social Learning Theory (Bandura, 1977) and Bakare's Study Habits Theory (Bakare, 1977). Base on these theories a conceptual framework was drawn.

CHAPTER THREE

METHODOLOGY

3.0   Overview

This chapter comprises information on the methodological approach to the research. It includes the research design, the methods used for data collection and the analysis. It described the population, the sample and how the respondents were selected for the study. It also includes information on the research instrument, data collection procedures and data analysis method. The ethical processes and practices followed in the research are also explained.

3.1 Philosophical Underpinning of the Study

Philosophy in research reflects researchers‟ view of the world, and the assumptions they make about social realities (Saunders et al, 2009). Researchers have a set of belief systems that they subscribe to, and which informs their decisions relating to the approach they adopt in studying a phenomenon. According to Corbin and Strauss (2008), research philosophy affords insights into what factors to consider when deciding upon the appropriate methodology to employ so as to answer research questions, and produce trustworthy results. Therefore, the beliefs a researcher holds are pertinent in the selection of a research strategy, the researchers‟ relationship with the participants, and the methods used to generate data and their subsequent analysis.

Literature has documented that there is lack of consensus on the terminology used to describe these belief systems. For instance, Neuman (2011) referred to these beliefs as „worldview‟ while Lincoln and Guba (2000) referred to them as „paradigms‟. According to Neuman (2011), a research paradigm is described as a whole system of thinking. Even though the system of beliefs is within the researchers, Creswell (2009)

opined that they affect the practice of research, and therefore, they need to be explicitly stated in a study. It is noted that research paradigms are grounded on three perspectives: epistemology, ontology, and methodology (Denzin & Lincoln, 2003).

This study is grounded in the positivism philosophy of how knowledge is created. Positivism is an epistemological perspective that is based on quantitative data and observation with the goal of being independent from subjective opinions (Bryman & Bell, 2011). These authors further added that positivism is the natural science procedure for collecting data about an observable reality and search for regularities and relationships to create generalizations. Therefore, it is said that positivist researchers adopt structured methodology to facilitate replication (Gill & Johnson, 2010). In addition, a positivist approach to research is conducted in a value-free way, and the outcome is entirely objective. Saunders et al., (2012) noted that a central part within positivism is testing theories and generating hypotheses.

From these descriptions, it is deduced that the positivist epistemological viewpoint suggests that the only authentic knowledge is derived from structured and controlled procedures as contained in the natural sciences like Chemistry, Biology, and Physics. In essence, social scientists are required to adopt laid down processes to arrive at knowledge that is tenable. With the positivist tradition, this study would require the use of structured questionnaires to gather quantifiable data for statistical analysis to test theories and hypotheses. However, the positivist view has been criticized as superficial because it is unable to arrive at in-depth knowledge (Cavana, Delahaye & Sekaran, 2001).

3.2 Research Design

The research design of the study refers to the overall plan for collecting and analyzing data needed to find answers to the research questions or hypotheses (Slavin, 2007). In essence, a research design can be thought of as the master plan of a research that throws light on how the study is conducted. The plan shows how all the major parts of the study work together in an attempt to address the research questions or hypotheses. The research design therefore guides a researcher at every stage of a study, and influences the choice of methods for data collection, analysis, and interpretation.

A descriptive survey design was used to conduct the study. This design focuses on and describes a phenomenon (McMillan & Schumacher, 2010). The rationale for the selection of the descriptive survey design was based on the view that it allows researchers to collect data regarding the opinion of participants on a particular topic, and it is used to investigate the existence of relationships (Leacock, Warrican & Rose, 2009). The researcher chose the descriptive survey design because the aim of the study was to describe the nature of learning style, study habits and the effect of these on the academic achievement of students in the public Basic Schools in the Effutu Municipality.

Particularly, the study adopted the quantitative approach that Gay and Airasian (2003) describe as the use some form of survey for the collection of data. The researcher gathered data from the views of the participants in relation to the learning style and study habits and its effect on academic achievement. Creswell (2012) further explains that in quantitative descriptive research, the investigator seeks to identify the possible existence of relationships rather than to determine causes of relationships. In line with the purpose of the study, the researcher believed that the quantitative approach was

appropriate for the study since the aim was to collect quantifiable data in the form of numbers for analysis.

3.3 Population of the Study

A population is the total collection of elements about which inferences are made, and refers to all possible cases which are of interest for a study (Lavrakas, 2008). The population of a study is therefore the people or events in which a researcher is interested, and to which the findings would be generalized. In this study, the population comprised all junior high school students in basic schools in the Effutu Municipality. The target population was all students in public Junior High School in the Effutu Municipality. This was made up of 1741 girls and 1805 boys, totaling 3546 Public Junior High School students.

3.4 Sample and Sampling Techniques

A sample of a study refers to any portion of a population selected for the study and on whom information needed for the study is obtained (Akinade & Owolabi, 2009). The sample is therefore the elements that a researcher actually studies and uses to make generalizations or inferences about the population. In essence, the sample is those who are selected to represent the entire population and participate in a study. This implies that data are collected from the sample and any conclusions drawn on the sample reflects the characteristics of the population. In this study, 532 public Junior High School students were selected to constitute the sample for the study. The size of the sample was deemed representative of the target population based on the suggestion by Gay and Airasian (2003) that at least 10-20% sample is adequate for a descriptive study. Therefore, the sample size of 532 was 15% of the target population of 3546 students.

Sampling means a process of selecting a given number of subjects from a defined population as representative of that population such that any statements made about the sample should also be true of the population (Orodho, 2009). Many researchers pointed out the relevance of sampling in studies. For instance, Akinboye and Akinboye (1998) enumerated the importance of sampling which includes ensuring that there is no bias or subjectivity in the selection process; it helps the researcher to work with reasonable size of elements since it is difficult to do so with the entire population; and it saves time spent on each research as well as reduces cost of research operations.

The study employed the stratified sampling technique to select the respondents. Stratified sampling is a technique in which a heterogeneous population is first divided into a set of mutually exclusive or non-overlapping sub-populations or strata, and thereafter random samples are selected from each stratum for detailed study (Popoola, 2011). This means that the population is categorized into subgroups, and then a random sampling is done to ensure that all the members in each subgroup are proportionately represented in the sample. Scholars like Nwankwo (2013) support the use of the stratified random sampling to ensure a fair representation of every stratum (subgroup) in the population.

In carrying out the stratified random sampling, the first step involved the sampling frame which is the actual list of individuals included in the population (Nesbary, 2000). The population was first categorized into gender, and the selection of the students from each of the sexes was done proportionately to its composition in the population. The proportion of each gender in the population of the school was calculated to determine the number of male and female students to be selected in the

Municipality. For instance, the number of boys in the total population was 1805 which represented about 51% of the total population and 1741 girls of the total population represented 49%. This means that these proportions by way of sex should reflect in the sample. Therefore, 51% of 532 represented 271 boys and 49% of 532 represented 261 girls. Thus, the sample of the population was 532 students made up of 271 boys and 261 girls.

3.5 Data Collection Instrument

Data collection instruments are tools used to collect information in research or the methods employed to collect research data (Zikmund, 2003). This author further explained that data collection instruments are the means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals. This implies that data collection instruments are the specific means by which data are gathered from participants in a study. The choice of a data collection instrument is influenced by factors such as the nature of the problem and availability of time and money (Cooper & Schindler, 2011).

The questionnaire was used to generate data for the study. Several scholars support the use of questionnaire as a credible data collection instrument in research. Denzin and Lincoln (2012) argued that the questionnaire is probably the single most common research tool that is relatively well understood and has the advantages of simplicity, versatility and low cost. Based on the views of Polit and Beck (2010) that closed ended questionnaires reduce the burden of respondents providing their own answers, and facilitate quick collection of quantifiable data for statistical analysis, the researcher used the closed-ended questionnaire in this study. The quantitative

approach adopted for the study required the collection of quantifiable data to help describe the nature of the variables.

The questionnaire was made up of five sections. Section One gathered demographic information of the respondents such as gender, age and form. Section Two collected data on the Study Habits and learning style preference of the pupils in the schools based on the Bakare"s (1977) Study Habits Questionnaire and Fleming"s (1995) VAK learning style questionnaire. Section Three collected data on the students" academic achievement in the four core subjects (English, Mathematics, Integrated Science and Social Studies). The questionnaire asked the participants to rate the statements which were measured on a 5-point Likert-type scale. Response options included: (SA) = 5, Agree (A) = 4, Neutral (N) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. The participants chose from the five options to represent their opinion on their study habits and learning styles. The respondents were required to choose only one option to reflect their view.
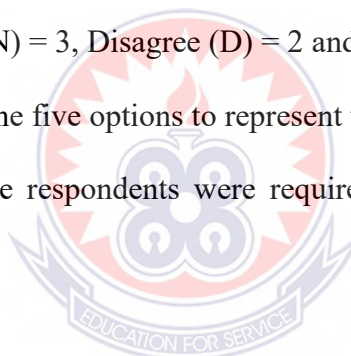
3.6 Pre-testing of the Instrument

Pre-testing of instruments refers to "A preliminary administering of instruments carried out before the full research to test out data collection instruments and other procedures" (Gerrish & Lacey, 2006, p. 538). This implies that it is always valuable to pre-test a questionnaire before administering to participants so as to eliminate ambiguities and errors in data collected. The pre-testing was done in the Gomoa West District. The researcher chose the district because it was deemed to have exhibited similar characteristics as the Effutu Municipality. A total sample of Twenty–five *(n= 25)* students were conveniently sampled from a school in the Gomoa West District for

the pre-testing. The researcher used the sampling technique after taking into consideration the resources at her disposal.

3.6.1 Validity

Validity is the extent to which a measuring instrument (like a questionnaire) really measures the characteristic it intends to measure (Leedy & Ormrod, 2005). Cohen, Manion, and Morrison (2012) contend that a research instrument must be validly designed to obtain rigorous conclusions. Face validity of the instruments was ensured by giving the instruments to colleagues on the Master of Philosophy programme and other graduate students at the university to review. Comments relating to the length of items, the number of items and the general layout of the instruments were considered in fine-tuning the instrument. Content validity refers to the extent to which the measuring instrument shows that it fairly and comprehensively covers the variables that it purports to measure (Cohen et al., 2012). According to Borg and Gall (2003), content validity of an instrument is improved through expert judgment. Therefore, content validity of the instrument was granted by supervisors and other lecturers who are experts and have knowledge in the issues of the study.

3.6.2 Reliability

Reliability refers to the consistency of results if a study is repeated, and is concerned with stability, internal reliability and inter-observer consistency (Bryman & Bell, 2012). In this study, reliability of the questionnaire was treated as internal consistency of the questionnaire items where Cronbach alpha was computed to determine the reliability based on data collected in a pilot test. The reliability of the instrument for each variable exceeded 0.7 which was in line with McMillan and Schumacher"s

(2010) recommendation that reliability needs to be 0.7 or higher. Based on the finding of the results, it could be concluded that the instruments were reliable.

3.7 Data Collection Procedure

Data collection as the gathering of information needed to address a research problem (Polit & Beck, 2010). Therefore, data collection entails the use of instruments to collect data so as to provide answers to research questions. Before the fieldwork, the researcher obtained an introductory letter from the Department of Basic Education to facilitate the process of data collection. The introductory letter was used to seek permission from the Effutu Education Directorate. Then, the researcher visited the schools and introduced herself to the head teachers, and sought permission from them to carry out the study in their schools. There were brief meetings with the students who were selected for the study. In these meetings, the purpose of the study was explained to the participants and how they would be involved in the study. After few questions were asked by the participants which the researcher addressed, the researcher sought the consent of the participants. The researcher distributed the questionnaires to the participants, and explained to them how to respond to the items. The researcher was available to clarify concerns raised during the data collection. All the filled in questionnaires were collected and sealed in an envelope. The researcher thanked the participants and the headteachers before leaving the schools.

3.8 Data Analysis Procedure

Data analysis is the process of examining what has been collected in survey and making conclusions and interpretations (Kombo & Tromp, 2006). The researcher checked all the filled- in questionnaires and those that were either not responded to or poorly answered were eliminated. The questionnaires were coded and entered into the

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version 22 of the Statistical Product for Service Solutions (SPSS). The data were explored to identify missing data using descriptive statistics such as mean and frequency.

Descriptive statistics was used to analyse the data. Descriptive statistics enabled the researcher to reduce, summarize, and describe quantitative data obtained from empirical evidence (Polit & Beck, 2010). The descriptive statistics such as mean, standard deviation were used to analyse the data that were organised in tables. Inferential statistics such as the independent samples t-test, one-way between-groups analysis of variance (ANOVA), Pearson Product Moment correlation, and multiple regression were used to make inferences from the data. The independent samples t-test and the one-way analysis of variance (ANOVA) were used to compare means so as to determine if any significant differences existed between them. The one-way analysis of variance (ANOVA) was appropriate because it is used to determine whether there are any significant differences between the means of three or more independent (unrelated) groups whiles the independent samples t-test is suitable for comparing the means of two independent groups (Lund & Lund, 2012). For instance, in comparing respondents on the study variables based on sex (male/female), the independent samples t-test was used, and the one-way analysis of variance (ANOVA) was used when the comparison was based on form/level (JHS 1, JHS 2, and JHS 3).

In order to determine the relationship between the study variables, Pearson Product Moment correlation was employed because it is suitable for determining the bivariate correlation between two variables (Bryman & Bell 2012). Multiple regression was employed to determine the extent to which learning style contributed to academic achievement due to its suitability for investigating the extent to which one or more

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independent variables affect one or more dependent variables (Cohen et al., 2011). Therefore, learning styles and study habit served as the independent variable and academic achievement was the dependent variable in the regression equation. Both the forced entry method and stepwise regression were used.

3.9 Test of Assumptions

The use of parametric inferential tools for data analysis is underpinned by certain assumptions. These include normality of data, homogeneity of variance, and multicollinearity.

3.9.1 Normality Test

Research scholars such as Lund and Lund (2012) suggest that there are two main ways of measuring normality: graphically and numerically. In this study, normality of data was assessed numerically using Shapiro-Wilk Test. These scholars propose that if the p-value of the Shapiro-Wilk Test is greater than 0.05 then the data is normal. If it is below 0.05 then the data significantly deviate from a normal distribution. Therefore, the results indicate that the assumption of normality was not violated.

3.9.2 Test of Homogeneity of Variance

Levene‟s test was used to assess the assumption of equal variances (homogeneity of variance). Levene‟s test looks at whether there are any significant differences between group variances (Field, 2005). The results of the Levene‟s test result which comes with t-test and ANOVA test output were examined. The results indicated that this assumption was met.

3.9.3 Test of Multicollinearity

Multiple regression is sensitive to multicollinearity, and it exists when the independent variables are highly correlated. Pallant (2005) therefore recommends that the cut-off points for determining the presence of multicollinearity is tolerance value of less than 0.10 or variance inflation factor (VIF) value above 10.0. This recommendation was considered in the interpretation of multicollinearity results. The results illustrated the absence of multicollinearity.

3.10 Ethical Considerations

Research ethics is "the standard of the researcher"s behaviour in relation to the rights of those who become the subject of a research project, or who are affected by it" (Saunders et al., 2012, p. 680). Bless and Higson-Smith (2000) considers the ethical rights of a participant to be the right to privacy and voluntary participation, anonymity, and confidentiality. Participation in research must be voluntary and participants must have the option to refuse to divulge certain information about them (Bless et al., 2000). The researcher explained the purpose and nature of the research and the extent of their involvement as well as their right to withdraw at any time, and all participants gave their consent to participate in the study.

A respondent may be considered anonymous when the researcher cannot identify a given response with a given respondent, and the consideration of anonymity can be easily overcome by omitting the names of the participants or identifying the respondents by a code instead of by name (Babbie, 2001). They note that research often requires participants to reveal personal information that may be a secret to their friends and associates. Many people are, however, prepared to divulge this information of a very private nature on condition that their names are not mentioned.

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Therefore, anonymity was ensured where all completed questionnaires were coded and names of respondents were omitted in the final report.

Another ethical consideration is that of confidentiality. The participants must be assured that the data will only be used for the stated purposes of the research and that no other person will have access to the research data (Bless et al., 2000). In light of this, the participants were assured that the research data would be used solely for the purpose of the research, and that no information would be made public without their prior consent.

3.11 Chapter Summary

In this chapter, the methodology employed in conducting the study was discussed. It delved into the research design, population, sample and sampling procedures, instruments used to collect data, pre-testing, and data collection procedures and their analysis. It was discussed that the study used the descriptive survey design, and the stratified random sampling technique was used to select 532 participants for the study. Data were collected by the use of questionnaire which was analysed with descriptive statistics such as frequency, percentages, mean and standard deviation and inferential statistics such independent samples t-test, one-way between-groups analysis of variance (ANOVA), Pearson Product Moment correlation, and multiple regression.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.0 Overview

This chapter presents findings derived from data analyses, and the subsequent discussion of the results. The chapter is organised in four subsections. Section one presents and discusses the response rate while the second section examines the demographic composition of the sample. The data presentation on the research questions is done in the third section, and finally, the discussion of the results is captured in the fourth section.

4.1 Response Rate

Five hundred and thirty-two (532) questionnaires were administered to the Junior High School pupils, but four hundred and ninety-six (496) were retrieved, representing a response rate of 93%. The researcher could not attain 100% response rate because some of the respondents did not return the questionnaire after several attempts were made to retrieve them. Besides, some of the questionnaires returned were not answered while others had incomplete answers that were eliminated from the analysis. The researcher attempted to collect all the questionnaires sent out by visiting the selected schools and making phone calls, but was unable to get some of the questionnaires back. However, this response rate was deemed appropriate based on the recommendation of Babbie (2001) that a response rate of 50% is enough in a survey. The response rate obtained in this study was therefore very good. The next section presents the demographic characteristics of the respondents.

4.2 Demographic Characteristics of Respondents

The demographic characteristics of the respondents such as form/class of pupils, sex, age, and parental level of education were examined, and the results are presented in Table 4.1.

Table 4.1: Demographic Characteristics of Respondents

Variables	Specifications	Frequency	Percentage
Sex of Pupils	Male	260	52.4
	Female	237	47.6
Form of Pupils	JHS 1	199	40.0
	JHS 2	172	34.6
	JHS 3	126	25.4
Age of Pupils	12-15	417	83.9
	16-19	80	16.1
Parental Education Level	Basic	69	13.9
	Secondary	266	53.5
	Tertiary	79	15.9
	No Education	83	16.7

Source: Field Data, 2018

It could be observed from the information in Table 4.1 that more males (n = 260, 52.4%) than females (n = 237, 47.6%) participated in the study. The information disclosed that more JHS 1 students (n = 199, 40.0%) than JHS 2 (n = 172, 34.6%) and JHS 3 (n = 126, 25.4%) were involved in the study while majority of the students were 12-15 years (n = 417, 83.9%) than those who were 16-19 (n = 80, 16.1%) years. The composition of the respondents based on their parental level of education has shown that the proportion of those who had Secondary School Education (n = 266,

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53.5%) were more than those who received No Education (n = 83, 16.7%), Tertiary Education (n = 79, 5.9%) and Basic Education (n = 69, 13.9%) levers respectively.

The demographic data of the respondents were vital to the study in two folds. Firstly, they confirmed that data were collected from a sample with varied backgrounds which suggested that the data were rich and representative of the population. Secondly, the demographic characteristics were used as the basis of comparison of the respondents on the study variables.

4.3   Data Presentation and Analyses of Research Questions

Research Question 1 - What is the perception of pupils on their learning style preferences in public Junior High Schools in the Effutu Municipality?

This research question sought to examine the kind of learning style preferences adopted by pupils in junior high schools in the Effutu Municipality. The learning styles were conceptualized as auditory, visual, and kinesthetic learning styles, and the results are presented in Table 4.2.

Table 4.2 Summary of Pupils Learning Style Preferences

Learning Styles	N	Minimum	Maximum	Mean	Std. Deviation
Visual Learning Style	497	2	5	3.88	0.62
Kinesthetic Learning Style	497	1	5	3.67	0.72
Auditory Learning Style	497	1	5	3.58	0.66
Overall Learning Style	497	2	5	3.71	0.47

Source: Field Data, 2018

The results in Table 4.2 revealed that visual learning style was more dominant (M = 3.88, SD = 0.62) than kinesthetic learning style (M = 3.67, SD = 0.72), and auditory learning style (M = 3.58, SD=0.66). The overall learning styles yielded a mean of 3.71 (SD = 0.47). Based on the 5-point Likert scale used for the data where the mean is 3.0, it could be noticed that all the components of learning styles as well as the overall were above the mean, and this implies that all the facets of learning styles and the overall learning style were commonly adopted by the pupils in public Junior High Schools in the Effutu Municipality.

The results indicated that the Junior High School pupils adopted and practiced an amalgam of learning styles to their studies in their schools. Therefore, the pupils were not aligned to the practice of single learning style, but rather adopted a mixture of learning styles as they reckoned suitable. The findings from the first research question as shown in Table 4.2 are based on the collective perception of all the public Junior High School pupils in the Effutu Municipality that participated in the study.

The study further investigated the influence of pupil"s demographic variables such (sex, form/level, age and parental level of education) on their learning style preferences. To determine the perception of male and female students separately in relation to their learning style preferences, the independent samples t-test was carried to compare the views of these two groups, and the results are shown in Table 4.3.

Table 4.3: T-test Results for Sex and Learning Styles of Pupils

Variables	Sex	Mean	Std. Deviation	t	df	Sig. (2-tailed
Auditory Learning Style	Male	3.51	0.65	-2.446	495	0.015
	Female	3.66	0.67			
Visual Learning Style	Male	3.80	0.62	-3.035	495	0 .003
	Female	3.97	0.61			
Kinesthetic Learning Style	Male	3.53	0.83	-4.901	495	0.000
	Female	3.84	0.49			
Overall Learning Styles	Male	3.61	0.49	-4.994	495	0.000
	Female	3.82	0.42			

Source: Field Data, 2018

The t-test results in Table 4.3 revealed that there was a statistically significant difference in the perception of males (M = 3.51, SD = 0.65) and females (M = 3.66, SD = 0.67) on their auditory learning style [t (495) = -2.446, p < 0.05, 2-tailed]. The study also realized a statistically significant difference in the views of males (M = 3.80, SD = 0.62) and females (M = 3.97, SD = 0.61) in relation to visual learning style [t (495) = -3.035, p < 0.05, 2-tailed]. Again, there was a significant difference between the males (M = 3.53, SD = 0.83) and females (M = 3.84, SD = 0.49) on their perception of their use of kinesthetic learning style [t (495) = -4.901, p < 0.05, 2-tailed]. Lastly, the t-test results showed that generally the males (M = 3.61, SD = 0.49) and females (M = 3.82, SD = 0.42) statistically differed significantly on their perception of the overall learning style preferences [t (495) = -4.994, p < 0.05, 2-tailed]. The findings established that the female students rated higher than the male students themselves on their learning style preferences in the public Junior High

Schools in the Effutu Municipality. Based on these results, it was established that the learning style preference of the public junior high schools is contingent on their sex.

In investigating the influence of age of students on their learning style preference, the independent samples t-test was used to analyze the results as resented in Table 4.4.

Table 4.4: T-test Results for Age and Learning Styles of Pupils

Variables	Age	Mean	Std. Deviation	T	df	Sig. (2-tailed)
Auditory Learning Style	12-15	3.56	0.68	-1.373	495	0.170
	16-19	3.67	0.57			
Visual Learning Style	12-15	3.92	0.59	3.213	495	0.001
	16-19	3.68	0.72			
Kinesthetic Learning Style	12-15	3.67	0.64	0.208	495	0.835
	16-19	3.66	1.02			
Overall Learning Styles	12-15	3.72	0.47	0.859	495	0.391
	16-19	3.67	0.49			

Source: Field Data, 2018

The independent samples t-test results in Table 4.4 disclosed that except for visual learning style where there was a statistically significant difference [t(495) = 3.213, p = 0.001, 2-tailed], there were no statistically significant differences among students in their practice of auditory [t(495) = -1.373, p = 0.170, 2-tailed], kinesthetic [t(495) = 0.208, p = 0.835, 2-tailed], and the overall learning style [t(495) = 0.859, p = 0.391, 2-tailed] at 0.05. These results implied that pupils practiced similar learning styles except for visual learning style based on their age.

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To determine the influence of parental level of education on the learning style preferences of the public junior high school pupils, One Way between group ANOVA test was conducted and the results are shown in Table 4.5.

Table 4.5: ANOVA Results for Parental Level of Education and Learning Styles of Pupils

Variables		Sum of Squares	df	Mean Square	F	Sig.
Auditory Learning Style	Between Groups	8.575	3	2.858	6.703	0.000
	Within Groups	210.220	493	0.426		
	Total	218.796	496			
Visual Learning Style	Between Groups	3.533	3	1.178	3.083	0.027
	Within Groups	188.353	493	0.382		
	Total	191.887	496			
Kinesthetic Learning Style	Between Groups	7.547	3	2.516	5.036	0.002
	Within Groups	246.268	493	0.500		
	Total	253.815	496			
Overall Learning Styles	Between Groups	2.504	3	0.835	3.800	0.010
	Within Groups	108.276	493	0.220		
	Total	110.780	496			

Source: Field Data, 2018

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It could be observed from the results in Table 4.5 that there were statistically significant differences in the mean scores for auditory learning style [F(3, 493) = 6.703, p = 0.000], there were also statistically significant differences in the use of visual learning style [F(3, 493) = 3.083, p = 0.027], kinesthetic learning style [F(3, 493) = 5.036, p=0.002], and the overall learning styles [F(3, 493) = 3.800, p = 0.010] at 0.05 based on their parents" level of education.

The study investigated the effect of form/level of pupils on their learning styles preferences, and the results are shown in Table 4.6.

Table 4.6: ANOVA Results for Form/Level and Learning Styles of Pupils

Variables		Sum of Squares	Df	Mean Square	F	Sig.
Auditory Learning Style	Between Groups	0.777	2	0.389	0.881	0.415
	Within Groups	218.018	494	0.441		
	Total	218.796	496			
Visual Learning Style	Between Groups	0.010	2	0.005	0.013	0.987
	Within Groups	191.877	494	0.388		
	Total	191.887	496			
Kinesthetic Learning Style	Between Groups	0.036	2	0.018	0.035	0.966
	Within Groups	253.779	494	0.514		
	Total	253.815	496			
Overall Learning Styles	Between Groups	0.081	2	0.041	0.182	0.834
	Within Groups	110.698	494	0.224		
	Total	110.780	496			
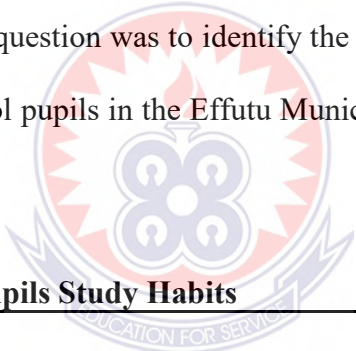
Source: Field Data, 2018

The results in Table 4.6 indicate that there were no statistically significant differences in the perception of students on auditory learning style [$F(2, 494) = 0.881$, $p > 0.05$], visual learning style [$F(2, 494) = 0.013$, $p > 0.05$], kinesthetic learning style [$F(2, 494) = 0.035$, $p > 0.05$], as well as the overall learning style [$F(2,494) = 0.182$, $p > 0.05$] across form/level groups. Therefore, it could be inferred that form/level did not influence the perception of the respondents on their learning styles preferences as adopted in their schools.

Research Question 2 – What is the perception of students on the nature of their study habits practiced in public Junior High Schools in the Effutu Municipality?

The aim of this research question was to identify the various study habits practiced by public Junior High School pupils in the Effutu Municipality and the results are shown in Table 4.7.

Table 4. 7: Nature of Pupils Study Habits

Variables	N	Min.	Max.	Mean	Std. Deviation
Homework and Assignment Study Habits	497	2	5	3.38	0.61
Reading and Notetaking Study Habits	497	2	5	3.27	0.40
Time Management Study Habits	497	2	5	3.23	0.64
Examination Study Habits	497	2	5	3.19	0.65
Concentration Study Habits	497	1	5	3.15	0.66
Overall Study Habits	497	3	4	3.25	0.30

Source: Field Data, 2018

Table 4.7 disclosed that different study habits exist among Junior High School pupils in the Effutu Municipality, and generally all the study habits variables yielded a mean of 3.25 (SD = 0.30). However, the information revealed that homework and assignment was rated highest (M = 4.18, SD = 0.47) as compared to reading and notetaking (M = 3.27, SD = 0.40), time management (M = 3.23, SD = 0.64), examination (M = 3.19, SD = 0.65), and concentration (M = 3.15, SD = 0.66). These results implied that homework and assignment related study habits was prevalent while concentration related study habits was least practiced among public Junior High School pupils in the Effutu Municipality.

Having determined the general perception of the students on their study habits practices, the study delved into the pupils personal factors that influenced the choice of their study habits. The influence of form/level on the practice of students study habits was investigated with the aid of One-Way between groups ANOVA test, and the findings are shown in Table 4.8.
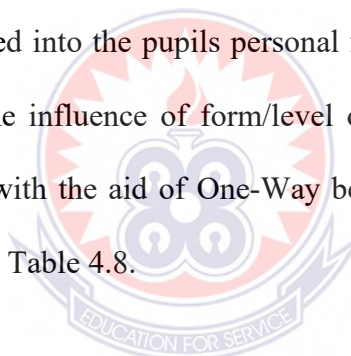
Table 4.8: ANOVA Results for Form/Level and Study Habits of Pupils

Variables		Sum of Squares	df	Mean Square	F	Sig.
Examination	Between Groups	0.700	2	0.350	0.818	0.442
	Within Groups	211.439	494	0.428		
	Total	212.139	496			
Homework and Assignment	Between Groups	2.652	2	1.326	3.578	0.029
	Within Groups	183.086	494	0.371		
	Total	185.738	496			
Reading and Notetaking	Between Groups	0.740	2	0.370	2.363	0.095
	Within Groups	77.326	494	0.157		
	Total	78.066	496			
Concentration	Between Groups	1.587	2	0.794	1.841	0.160
	Within Groups	212.990	494	0.431		
	Total	214.577	496			
Time Management	Between Groups	1.622	2	0.811	1.990	0.138
	Within Groups	201.365	494	0.408		
	Total	202.987	496			
Overall Study Habit	Between Groups	0.480	2	0.240	2.622	0.074
	Within Groups	45.179	494	0.091		
	Total	45.658	496			

Source: Field Data, 2018

The ANOVA results in Table 4.8 revealed that except Homework and Assignment related study habit where a statistically significant difference was realized [F(2, 494) = 3.578, p = 0.029], there were no statistical significant differences in the means for Examination [F(2, 494) = 0.818, p = 0.442], Reading and Notetaking [F(2, 494) = 2.363, p = 0.095], Concentration [F(2, 494) = 1.841, p = 0.160], Time Management [F (2, 494) = 1.990, p = 0.138] as well as the Overall Study Habits [F(2, 494) = 2.662, p = 0.074] at 0.05 due to the form/level of the students. Based on these results, it could be deduced that except Homework and Assignment, pupils" study habit was not determined by the form/level of Junior High School pupils in the Effutu Municipality.

A further multiple comparison using Tukey HSD test was used in an attempt to explore the differences and the results are displayed in Table 4.9.

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Table 4.9: Post hoc Results for Form/Level and Study Habits of Students

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Homework and Assignment	JHS 1	JHS 2	-.136	.063	.081	-.29	.01
		JHS 3	.037	.069	.855	-.13	.20
	JHS 2	JHS 1	.136	.063	.081	-.01	.29
		JHS 3	.173[*]	.071	.041	.01	.34
	JHS 3	JHS 1	-.037	.069	.855	-.20	.13
		JHS 2	-.173[*]	.071	.041	-.34	-.01

Form of Participants	Mean	Std. Deviation
JHS 1	3.27	0.33
JHS 2	3.26	0.28
JHS 3	3.19	0.28
Total	3.25	0.30

Source: Field Data, 2018

The post hoc results in Table 4.9 revealed that there was significant pair-wise group difference between the Junior High School 2 pupils and Junior High School 3 pupils where those in JHS 2 scored significantly higher (M = 3.26, SD = 0.28) than those in JHS 3 (M = 3.19, SD = 0.28) on homework and assignment.

The study investigated the effect of sex on the practice of study habit of pupils in public basic schools in the Effutu Municipality with the aid of independent samples t-test, and the results are shown in Table 4.10.

Table 4.10: T-test Results for Sex and Study Habits

Variables	Sex	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Examination	Male	3.21	0.68	0.810	495	0.418
	Female	3.16	0.62			
Homework and Assignment	Male	3.33	0.63	-2.000	495	0.046
	Female	3.44	0.59			
Reading and Notetaking	Male	3.27	0.38	-0.034	495	0.973
	Female	3.27	0.42			
Concentration	Male	3.13	0.64	-0.981	495	0.327
	Female	3.19	0.68			
Time Management	Male	3.32	0.59	3.413	495	0.001
	Female	3.13	0.69			
Overall Study Habit	Male	3.25	0.33	0.466	495	0.641
	Female	3.24	0.27			

Source: Field Data, 2018

As indicated in Table 4.10, while there was statistically significant differences in the perception of males and females students for homework and assignment $[t(495) = 2.000, p = 0.0.046, 2\text{-tailed}]$, and the time management $[t(495) = 3.413, p = 0.001, 2\text{-tailed}]$, there were no statistically significant differences in the perception of males and females for examination $[t(495) = 0.810, p = 0.0.418, 2\text{-tailed}]$, reading and note taking $[t(495) = -0.034, p = 0.973, 2\text{-tailed}]$, concentration $[t(495) = -0.981, p=0.327,$

2-tailed],and overall study habits [t(495)=0.466, p=0.641, 2-tailed] at 0.05 alpha level. Therefore, the results showed that apart from homework and assignment related study habits sex not was important in the choice of the examination, reading and note taking, concentration and the overall study habits as practiced by pupils in public Junior High Schools in the Effutu Municipality.

With the aid of independent samples t-test, the study investigated the effect of age on the practice of study habits, and the results are shown in Table 4.11.

Table 4.11: T-test Results for Age and Study Habits of Students

Variables	Age	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Examination	12-15	3.21	0.67	1.499	495	0.134
	16-19	3.09	0.57			
Homework and Assignment	12-15	3.45	0.61	5.637	495	0.000
	16-19	3.04	0.52			
Reading and Notetaking	12-15	3.23	0.38	-4.934	495	0.000
	16-19	3.46	0.45			
Concentration	12-15	3.15	0.66	-0.446	495	0.656
	16-19	3.18	0.65			
Time Management	12-15	3.23	0.64	-0.121	495	0.904
	16-19	3.24	0.64			
Overall Study Habits	12-15	3.25	0.32	0.446	495	0.656
	16-19	3.23	0.23			

Source: Field Data, 2018

The t-test results in Table 4.11 revealed that whereas there were statistically significant differences between respondents for homework and assignment [t (495) = 5.637, p = 0.000, 2-tailed], and reading and note taking [t(495) = -4.934, p = 0.000, 2-tailed], there were no statistically significant differences between respondents for examination [t(495) = 1.499, p = 0.134], concentration [t(495) = -0.446, p = 0.656], time management [t(495) = -0.121, p = 0.904], as well as the overall study habits [t(495) = 0.446, p = 0.656] at 0.05 alpha level due to age. Therefore, the results confirmed that age was not important in determining the students study habits for examination, concentration, time management and overall study habits while it was vital in determining students" homework and assignment, and reading and note taking study habits in the public Junior High Schools in the Effutu Municipality.

With the aid of One-Way ANOVA, the extent to which parental level of education accounted for the differences in study habits among the students was investigated, and the results are displayed in Table 4.12.
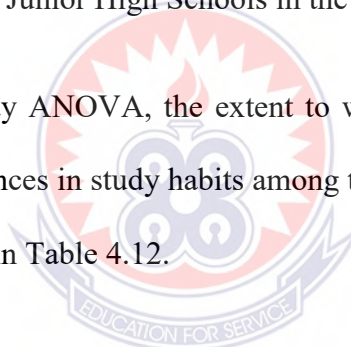
Table 4.12: ANOVA Results for Parental Level of Education and Study Habits of pupils

Variables		Sum of Squares	df	Mean Square	F	Sig.
Examination	Between Groups	1.948	3	0.649	1.523	0.208
	Within Groups	210.191	493	0.426		
	Total	212.139	496			
Homework and Assignment	Between Groups	5.079	3	1.693	4.620	0.003
	Within Groups	180.659	493	0.366		
	Total	185.738	496			
Reading and Notetaking	Between Groups	2.716	3	0.905	5.923	0.001
	Within Groups	75.350	493	0.153		
	Total	78.066	496			
Concentration Study Habit	Between Groups	21.753	3	7.251	18.539	0.000
	Within Groups	192.825	493	.391		
	Total	214.577	496			
Time Management	Between Groups	17.479	3	5.826	15.484	0.000
	Within Groups	185.507	493	0.376		
	Total	202.987	496			
Overall Study Habits	Between Groups	4.267	3	1.422	16.941	0.000
	Within Groups	41.391	493	0.084		
	Total	45.658	496			

Source: Field Data, 2018

The one-way between groups ANOVA results in Table 4.12 disclosed that apart from examinations related study habits where there were no statistically significant differences in the perception of the participants [F(3, 493) = 1.523, p = 0.208], the findings of the study further disclosed that there were statistically significant differences in the perception of the participants for homework and assignment [F(3, 493)=4.620, p=0.003], reading and note taking [F(3, 493) = 5.923, p = 0.001], concentration [F(3, 493) =18.539, p = 0.000], time management [F(3, 493) = 15.484, p = 0.000] as well as the overall study habits [F(3, 493) = 16.941, p = 0.000] at 0.05 alpha level due to parental level of education. Based on these results, it could be concluded that parental level of education was a key variable that accounted for differences in students" study habits preferences in the public Junior High School schools in the Effutu Municipality.

Research Question 3 - What is the relationship between learning styles and academic achievement among public Junior High School in the Effutu Municipality?

The third research question examined the relationship between learning styles and students" academic achievement, and the interpretation of the strength of correlation was based on the recommendation of Devore and Peck (1993) that coefficients less than 0.5 represent a weak relationship, coefficients greater than 0.5 but less than 0.8 represent a moderate relationship, and coefficients greater than 0.8 represent a strong relationship. The Pearson Product Moment correlation was used to test the relationship between the variables, and the results are presented in Table 4.13.

Table 4.13: **Pearson Correlation Matrix for Learning Styles and Academic Achievement of Students**

		1	2	3	4	5	6	7	8	9
	Mean	3.58	3.88	3.67	3.71	2.63	3.19	2.82	2.82	2.87
	Std. Dev.	0.66	0.62	0.72	0.47	1.19	1.50	1.26	1.43	1.14
1	Auditory	1								
2	Visual	0.204^{**}	1							
		(0.000)								
3	Kinesthetic	0.289^{*}	0.255^{*}	1						
		(0.000)	(0.000)							
4	Overall Learning Styles	0.704^{*}	0.663^{*}	0.752^{*}	1					
		(0.000)	(0.000)	(0.000)						
5	English	0.084	0.091^{*}	0.075	-0.042	1				
		(0.060)	(0.043)	(0.096)	(0.354)					
6	Mathematics	0.191^{*}	0.020	0.045	0.058	0.628^{*}	1			
		(0.000)	(0.657)	(0.319)	(0.197)	(0.000)				
7	Science	0.092^{*}	0.151^{*}	0.002	0.110^{*}	0.726^{*}	0.669^{*}	1		
		(0.041)	(0.001)	(0.971)	(0.014)	(0.000)	(0.000)			
8	Social Studies	0.011	0.229^{*}	0.063	0.137^{*}	0.607^{*}	0.519^{*}	0.596^{*}	1	
		(0.813)	(0.000)	(0 .158)	(0.002)	(0.000)	(0.000)	(0.000)		
9	Overall Academic Achievement	0.114^{*}	0.131^{*}	0.014	0.104^{*}	0.861^{*}	0.843^{*}	0.875^{*}	0.810^{*}	1
		(0.011)	(0.003)	(0.758)	(0.021)	(0.000)	(0.000)	(0.000)	(0.000)	

N = 496   *Correlation is significant at $p < 0.05$ (2-tailed)

Note: P-values are in parentheses

Source: Field Data, 2018

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The Pearson correlation results in Table 4.13 revealed a weak but statistically significant positive relationship between auditory learning style and overall academic achievement (r = 0.114, p = 0.011, 2-tailed), and weak and statistically significant positive relationship was observed between visual learning style and overall academic achievement (r = 0.131, p = 0.003, 2-tailed). The information also established there was no statistically significant positive relationship between kinesthetic learning style and overall academic achievement (r = 0.014, p = 0.758, 2-tailed) whereas overall learning style made a strong and statistically significant positive association with overall academic achievement (r = 0.104, p = 0.021, 2-tailed). Based on these results, it was established that the learning styles of students are crucial in ensuring better and improved academic achievement in the Effutu Municipality and all the learning styles are important in enhancing academic achievement in the Effutu Municipality.

Research Question 4 - What is the effect of study habits on academic achievement of Public Junior High School pupils in the Effutu Municipality?

Research Question 4 investigated the effects of study habits on academic achievement. A multiple regression analysis was carried out where examination, reading and note-taking, homework and assignments, concentration, and time management were used as predictors of academic achievement in the regression model in order to answer this research question and the results are displayed in Table 4.14.

Table 4.14:   Multiple Regression and ANOVA Results for Study Habits and Academic Achievement of pupils

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.909	5	7.582	6.161	0.000
	Residual	604.193	491	1.231		
	Total	642.102	496			

R = 0.243

R^2 = 0.059

Adjusted R^2 0.049

Std. Error of the Estimate = 1.109

Source: Field Data, 2018

The multiple regression results as shown in Table 4.14 discovered that study habits collectively accounted for 5.9% variance in academic achievement which was found to be statistically significant [F(5, 491) = 6.161, p =0.000] at 0.05 alpha level. Therefore, the results suggested that study habits is a good predictor of students" academic achievement and that other factors not included in this study could contribute 94.1% in students academic achievement.

The study further examined the contribution of each of the study habits variables to students" academic achievement and the results are presented in Table 4.15.

Table 4.15:   **Standardized and Unstandardized Coefficients for Study Habits and Academic Achievement of Students**

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	2.817	0.575		4.904	.000		
Examination	-.169	0.078	-.097	-2.167	.031	0.948	1.055
Homework & Assignment	-.230	0.084	-.124	-2.740	.006	0.943	1.060
Reading and Notetaking	.107	0.131	.037	.811	.418	0.913	1.095
Concentration	.106	0.085	.061	1.249	.212	0.793	1.261
Time Management	.211	0.085	.119	2.481	.013	0.837	1.194

Source: Field Data, 2018

The results in Table 4.15 disclosed that examination (β = -0.097, p = 0.031), homework and assignment (β = -0.124, p = 0.006) and time management (β = 0.119, p = 0.013), made unique significant individual contribution to academic achievement while the contribution of concentration (β = 0.061, p=0.212), and reading and note taking (β = 0.037, p = 0.418) did not individually contribute significantly to academic achievement. It could be noticed that even though examination, homework and assignment and time management are good predictors of academic achievement, the results have shown that homework contributed stronger than time management and examination.

4.4   Discussion of the Results

The results on Research Question 1 disclosed that multiple learning styles were adopted by the pupils in the schools. Indeed, all the learning style preferences outlined in this study such as auditory, visual, kinesthetic as well as their combinations were used by the pupils in their learning in the schools. However, the results revealed that visual learning style was most dominant among the pupils while the auditory learning style was least dominant. The finding of the study was consistent with the findings of Alade and Ogbo (2014) that discovered in their study that visual learning style was dominantly used more than auditory and kinesthetic learning styles. Furthermore, the outcome of this study concurs with Winn and Grantham (2005) findings which revealed that everyone has different learning style preferences, and some students favour a singular (for example, visual) than other learning styles. This means that the students prefer to see materials to enhance their understanding and by this they prefer to use visual aids such as graphs and diagrams to help them put the content of what is to be learnt into perspective.

Contrarily, Adeniji (2015) discovered that students prefer kinesthetic learning style more than auditory and visual learning styles. Implicitly, it could be said that these students like to read, write and do physical activities while learning than hearing and seeing. The study further explored the extent to which personal factors of students such as sex, form, age and parental level predicts the learning style preferences of students. On sex, the findings of the study disclosed that students learning style preferences were influenced significantly by sex. This finding agrees with previous studies (Marcus, 1999, Fox, 1999 & Aries, 1996) where it was disclosed that students gender matters significantly in the discussion of their learning style preferences however conflicts with Chianson, Aligba and Jimin (2015), Diaz and Cartinal (2005)

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and Sara (2010) findings that students gender do not influenced the learning preferences of students. When the effect of age was tested on the learning style preferences of the students, it was revealed that there were no statistically significant differences between age and learning style preferences. This finding resonates with that of Chianson, Aligba and Jimin (2015) and Cornu (1999) where it was discovered that age was not a significant determinant of learning style preferences among students.

Contrarily, the result disagrees with Dunn and Grigg (1998) where age was found to be crucial in the discussion of students learning style preferences. Besides, the study found that form/level did not influence the learning styles of the students. This finding is contingent on Gappi (2013) and Aga (2005) revelations that the form/level of the students does not significantly predict their learning style preferences. In conclusion, the study revealed that parental level of education is critical in the discussion of the learning style preferences of students which agrees with Schulze, Snowman, McCown (2016) and Yousef (2016) where they realized a statistically significantly difference between parental level of education and students learning style preferences.

In relation to research question two, it was revealed that students practiced all the study habits outlined in the study. This finding supports Siahi and Maiyo (2015) observation that the study habits of students is not mutually exclusive and that it encompasses effective planning; unvarying class attendance, taking notes during classes; concentrating on studies; understanding content and avoiding rote learning; asking for clarifications from friends and teachers on what is taught in class; as well as preparing and following a timetable. However, the results showed that the students practiced the homework and assignment related study habits practices were

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dominantly practiced, than reading, note taking, time management, examinations whereas the concentration related study habits was the least practiced among the students. This finding is not consistent with the results of a study carried out by Esia-Donkoh, Bentil, and Quashigah (2017) where they found that students mostly practiced the examination related study habits than homework and assignment. Also, the study disclosed that whereas form/level, sex, and age did not influence students study habits. These results disagree with that of Khurshid, Tanveer, and Qasmi (2012) where there was significant differences in the study habit of students with respect to those demographic variables.it was discovered that the parental level of education of the students significantly affect their study habits which agrees with Isangedighi (1997) studies where a statistically significant difference between parental level of education and student study habits was disclosed.

The analyses for the third research question revealed that generally there was a strong and statistically significant positive relationship between learning styles preferences of students academic achievement (r = 0.861, p = 0.000, 2-tailed). For the learning styles, the results showed a weak and statistically significant positive relationship between auditory learning style and overall academic achievement (r = 0.114, p = 0.011, 2-tailed), and weak and statistically significant positive relationship was observed between visual learning style and overall academic achievement (r = 0.131, p = 0.003, 2-tailed). However, the information established no and statistically significant positive relationship between kinesthetic learning style and overall academic achievement (r = 0.014, p = 0.758, 2-tailed). These results have disclosed that the learning style preference of students is crucial in their academic achievement, and they confirm the outcome of previous studies (Cano & Garton, 1994; Dunn, 2000; Sutliff & Baldwin, 2001; Alade & Ogbo, 2014) where they discovered that students

learning style preferences had a positive relationship with academic achievement. However, it departs from (Fatokun & Eniayeju, 2014a & Norman, 2008) finding that there was no significant relationship between students learning style and students" academic achievement in schools.

Finally, the findings on Research Question 4 of the study established that pupils study habits contributed a significant 5.9% to their academic achievement. The findings of this study concur with previous findings (Bentil, Esia-Donkoh & Ghanney, 2018; Sarwar et al. 2009) which indicated that study habits impact students" academic achievement. Likewise, the findings of this study agrees with studies like Credé and Kuncel (2008) and Nuthana and Yenagi (2009), where it was revealed that student study habits enhanced academic achievement among students.

4.5   Chapter summary

In this chapter, a reliability coefficient of not less than 0.70 was realized for all the various constructs after pre testing instrument. The data gathered through questionnaire were analysed using both descriptive (frequency, percentage, mean, standard deviation) and inferential (t-test, ANOVA, Pearson correlation, multiple regression) statistics with the aid of Version 22 of the Statistical Product for Service Solution (SPSS). It was revealed that the visual learning style was most dominantly preferred (M = 3.88, SD = 0.62), followed by kinesthetic (M = 3.67, SD = 0.72), and auditory (M = 3.58, SD = 0.66) learning styles. It was again discovered that public junior high school pupils frequently practiced homework and assignment (M = 3.38, SD = 0.61), than reading and note-taking (M = 3.27, SD = 0.40), time management (M = 3.23, SD = 0.64), examinations (M = 3.19, SD = 0.65), and concentration (M = 3.15, SD = 0.66) related study habits. Besides, it was established that generally there

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was a strong and statistically significant positive relationship between learning styles preferences of pupils" and academic achievement (r = 0.861, p = 0.000, 2-tailed). Furthermore, result showed that study habits are good predictors of pupil"s academic achievement where it accounted for a significant 5.9% in pupil"s academic achievement.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Overview

This chapter discusses the summary and the conclusions drawn from results of the study. It also contains the recommendations based on the study findings and areas for further study. In the summary section, an overview of the entire thesis is presented by connecting the issues discussed in each chapter. Specifically, it draws on the purpose of the study, the methodology employed, and results and discussions of the findings. This is followed by the major findings and conclusions. Finally, the chapter presents the recommendations based on the findings of the study.

5.1 Summary of the Study

The purpose of the study was to investigate the learning styles preferences and study habits practices among students in public junior high schools in the Effutu Municipality in the Central Region of Ghana. To accomplish this purpose, four objectives and research questions were outlined and investigated. Literature was reviewed and aligned to the research questions. The study adopted the descriptive survey design where quantitative data were collected and analysed. The stratified and simple random sampling techniques were used to select 532 public basic school pupils who participated in the study.

Structured questionnaire was the main instrument used to collect quantifiable data and analysed. The instrument was pre-tested to ensure its validity and reliability before data collection commenced. The data were analysed using descriptive statistics such as frequencies and percentages for the demographic variables and the research questions were analyzed using inferential statistical tools such as mean, standard

deviation, independent samples t-test, One Way ANOVA, Pearson Moment Correlation and Multiple Regression. Finally, ethical considerations such as confidentiality, voluntary participation, anonymity, and informed consent were addressed and adhered to. The next section highlights the major findings of the study.

5.2 Major Findings of the Study

The findings from the first research question revealed that though public junior high school pupils practiced a mixture of learning styles, it was discovered that the visual learning style was dominant than the kinesthetic and auditory learning styles. It was established that the public junior high school pupils practiced all the learning styles contained in the study. Besides, it was revealed that sex and parental level of education influenced pupils learning style preferences whilst age and form/level did not affect students learning style preferences.

Data gathered on second research question on the study habits of the pupils have discovered that the pupils practiced a mixture of study habits which included examinations, homework and assignment, reading and note taking, time management and concentration related study habits to their studies. Nonetheless, ranked by mean and standard deviations, the study revealed that homework and assignment related study habits practices were dominantly practiced, than reading and note taking, time management, examinations while concentration related study habits was the least practiced by junior high school pupils in the study area. Additionally, the study disclosed that whereas form/level, sex, and age did not influence pupils study habits that of parental level of education significantly influenced pupils study habits.

It was established in the third research question of this study that generally there is a positive association between students learning styles preferences and their academic

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achievement in the Effutu Municipality. The study found that the relationship between overall learning style and overall academic achievement was stronger than the relationship between individual learning style preference and the achievement in individual subject.

Findings from the fourth research question in this study brought to bear that study habits were good predictors of students" academic achievement. Finally, it could be noticed that even though study habits are good predictors of academic achievement, homework and assignment contributed stronger than time management and examination.

5.3 Conclusions

Generally, the study has highlighted the varied learning styles practiced by students and has shown the link between study habits on the pupil"s academic achievement in the Effutu Municipality of the Central Region of Ghana. Indeed, the findings of the study indicated that there was a positive link and statistically significant effect between learning style and study habits on the academic achievement of students. Instructively, it is obvious that poor study habits and lack of consideration of the learning style preferences of students by teachers could be the cause of dismal academic achievement in the Municipality which is matter of concern to all education stakeholders. Therefore, education stakeholders are expected to direct their resources and efforts towards improving the study habits of pupils if they desire to enhance academic achievement among the pupils.

5.4 Recommendations

Based on the key findings of the study, it is recommended that:

i.   The Municipal Education Service should collaborate with school guidance and counseling coordinators to plan and execute academic programmes such as workshops and seminars to expose teachers to adopt and practice instructional pedagogies to meet the varied learning style preferences of students so as to boost their academic achievement.

ii. The Municipal Education Service should conducted regular educational programmes such as symposia and school festivals to counsel students on the need to practice good study habits. This would heighten students" self-esteem, and remove negative past experiences and beliefs about examinations so as to engender good academic achievement. The study has shown that examinations, homework and assignment and time management made significant contributions to academic achievement. Accordingly, efforts should be made to reinforce or toughen students" examinations, homework and assignment and time management related study habits to boost academic achievement.

iii. The study had proven that students learning style preferences are essential in realizing improved academic achievement. Hence, it is recommended that the Effutu Education Directorate should organize refresher courses to the teachers to equip them with the relevant knowledge and skills to effectively identify students learning style preferences so as to enhance academic achievement in the Effutu Municipality.

iv. Effutu Education Directorate should advice parents to complement the effort of teachers by getting deeply involved in the education of their ward by way of

supervising and monitoring homework and assignment so as to realize improved academic achievement in the Effutu Municipality.

5.5 Suggestion for Further Studies

The study has demonstrated that learning styles and study habits of pupils were significantly linked to their academic achievement. Hence, if stakeholders of education desire to improve achievement, then it is suggested that future studies should explore the extent to which these variables influence the achievement of the pupils nationwide so as to realize a comprehensive picture.

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APPENDICES

APPENDIX A

UNIVERSITY OF EDUCATION, WINNEBA
DEPARTMENT OF BASIC EDUCATION
QUESTIONNAIRE

This questionnaire aims to collect information on students" learning styles and study habits and academic performance. This questionnaire is strictly for an academic exercise, and you are please requested to provide accurate and frank information that will assist the researcher in obtaining the correct data for this exercise. Your responses will be treated in strict confidence. You are please requested to Tick (√) on the column that best describes your learning style and study habit. Thank you.

SECTION A: Personal Information

1. Form: JHS 1 [   ]   JHS 2 [   ]
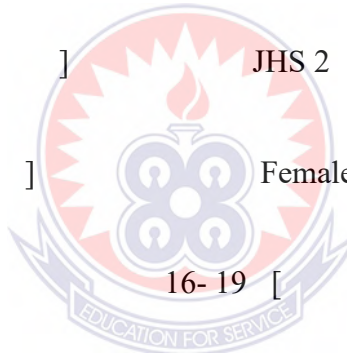
2. Gender: Male [   ]   Female   [   ]

3. Age: 12-15   [   ]   16- 19 [   ]   20 and above [   ]

4. Parental Level of Education

   Basic [   ]   Secondary [   ]   Tertiary [   ]   No Education [   ]

SECTION B

Instructions

The following is a list of questions concerning your study habits and learning style of study. Read each statement carefully and answer it as accurately as possible. Tick (√) a number that best describes your habit. Thank you.

S/N		Please **CIRCLE** a number to rate EVERY option				
		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	I do poorly in tests because I find it difficult to think clearly.	5	4	3	2	1
2	I get nervous and confused when taking a test and therefore fail to answer the questions.	5	4	3	2	1
3	When getting ready for a test, I arrange facts to be learned in some planned order.	5	4	3	2	1
4	I am careful about spelling, punctuation and grammar when answering test questions.	5	4	3	2	1
5	I am able to finish tests within the time allowed.	5	4	3	2	1
6	I finish my examination papers and 87+7hand them in before time during examination.	5	4	3	2	1
7	When my assigned homework is too long or difficult, I either stop or study only the easier parts of the lesson.	5	4	3	2	1
8	If I am absent from class, I make up missed lessons and notes immediately.	5	4	3	2	1
9	Even though an assignment is dull and boring I stick to it until it is completed.	5	4	3	2	1
10	I put off doing written assignments until the last minute.	5	4	3	2	1
11	I complete and submit my assignments on time.	5	4	3	2	1
12	I begin my assignments as soon as the teacher gives them to me and not allow them to pile up.	5	4	3	2	1
13	I read my notes only once, before the examination starts.	5	4	3	2	1

S/N		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
		Please **CIRCLE** a number to rate EVERY option				
14	After reading several pages of an assignment, I find it easy to remember what I have read.	5	4	3	2	1
15	I find it easy to pick out the important points of a reading assignment.	5	4	3	2	1
16	When reading a long assignment I stop now and then to try to remember what I have read.	5	4	3	2	1
17	I have to re-read material several times because the words don't have much meaning the first time I go over them.	5	4	3	2	1
18	I have trouble picking out the important points in the material I read or studied.	5	4	3	2	1
19	I go back and recite to myself the material I have studied, rechecking any points I find doubtful.	5	4	3	2	1
20	I miss important points in class while copying down notes.	5	4	3	2	1
21	I pronounce words to myself as I read.	5	4	3	2	1
22	I read only books prescribed by my teacher for his/her subjects.	5	4	3	2	1
23	I find that day dreaming distracts my attention from lessons while studying.	5	4	3	2	1
24	I find it hard to keep my mind on what I am studying for any length of time.	5	4	3	2	1
25	Outside interruptions disturb me while am studying.	5	4	3	2	1
26	I focus entirely on my work when I am studying.	5	4	3	2	1
27	I feel sleepy and drowsy whenever I want to study.	5	4	3	2	1
28	I can only study when a place is completely quiet.	5	4	3	2	1
29	I waste too much time talking, watching TV or listening to the radio instead of studying.	5	4	3	2	1
30	I find that having many other things to do cause me to get	5	4	3	2	1

S/N		Please **CIRCLE** a number to rate EVERY option				
		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
	behind in my school work.					
31	Problems outside the classroom, with other students or at home cause me to neglect my school work.	5	4	3	2	1
32	I study for at least three hours each day after classes.	5	4	3	2	1
33	I spend too much time on some subjects and not enough on others.	5	4	3	2	1
34	I spend too much time reading other books, or going out for the good of my school work.	5	4	3	2	1
35	I can remember best about a subject by listening to a lesson that includes information, explanations and discussions.	5	4	3	2	1
36	I do best in academic subjects by listening to lessons and tapes.	5	4	3	2	1
37	I prefer listening to the news on the radio rather than reading the paper.	5	4	3	2	1
38	I talk to myself aloud when studying	5	4	3	2	1
39	I prefer to see information written on a chalkboard and supplemented by visual aids and assigned readings.	5	4	3	2	1
40	I like to write things down or to take notes for visual review.	5	4	3	2	1
41	I think the best way to remember something is to picture it in your head.	5	4	3	2	1
42	I prefer obtaining information about an interesting subject by reading about it.	5	4	3	2	1
43	I enjoy working with my hands or making things.	5	4	3	2	1
44	I can remember best by writing things down.	5	4	3	2	1
45	I like to solve problems by physically working through them when studying	5	4	3	2	1

| S/N		Please **CIRCLE** a number to rate EVERY option				
		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
46	I enjoys doing activities whiles studying	5	4	3	2	1

SECTION C

Instructions

This section of the questionnaire collates information on your performance in the core subjects at the End of Second Term Examination. Please state the grade for the following subjects.

Thank You.

English Language [   ]   Mathematics [   ]   Science [   ]   Social Studies [   ]
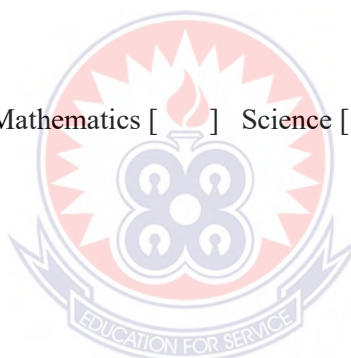
APPENDIX B

UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF BASIC EDUCATION
✉ P. O. Box 25, Winneba, Ghana   ✈ beducation@uew.edu.gh
☎ +233 (050) 9212015

Date: August 13, 2018

The Director
Municipal Education Directorate
Effutu Municipal Assembly
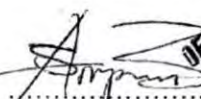Winneba

Dear Sir /Madam,

LETTER OF INTRODUCTION

We forward to you, a letter from Ms. Faustina Appiah, a second year M.Phil student of the Department of Basic Education, University of Education, Winneba, with registration number 8160030012.

Ms. Faustina Appiah, is to carry out a research on the Topic *"Learning Styles and Study Habits as Determinants of Academic Performance in Social Studies: A Study Among Some Selected Junior High Schools in the Effutu Municipality"*.

We would be grateful if permission is her request is granted to enable her carry out her studies in your institution.

Thank you.

SAKINA ACQUAH (MRS.)
(Ag. Head of Department)