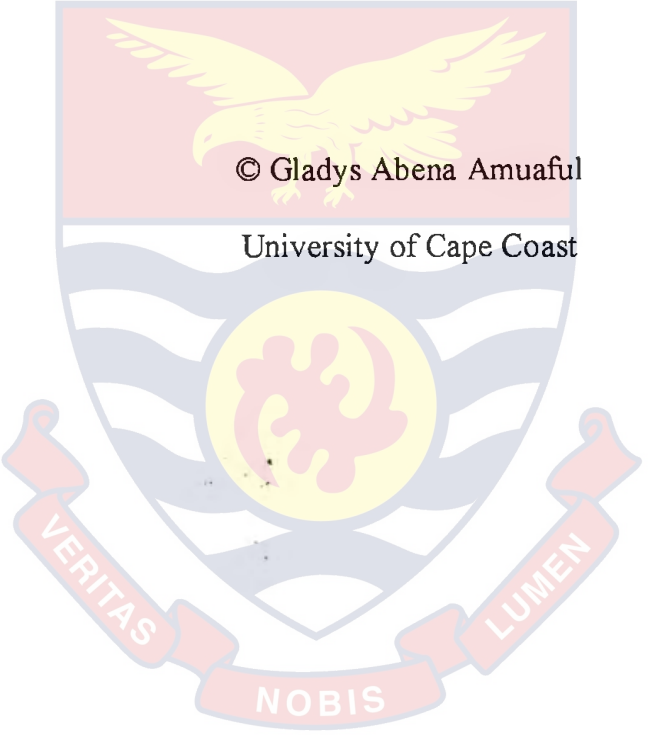

UNIVERSITY OF CAPE COAST

EFFECTS OF STUDY SKILLS COUNSELLING AND SELF-REINFORCEMENT COUNSELLING ON STUDY BEHAVIOUR OF COLLEGES OF EDUCATION STUDENTS IN CENTRAL AND WESTERN REGIONS, GHANA

BY

GLADYS ABENA AMUAFUL

Thesis submitted to the Department of Guidance and Counselling of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Doctor of Philosophy degree in Guidance and Counselling.

JULY 2020

Candidate's Declaration

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

Candidate's Signature: ..... Date: 27-07-2020

Name: Gladys Abena Amuaful

Supervisors' Declaration

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

Principal Supervisor's Signature: ..... Date: 29/07/2020

Name: Prof. Godwin Awabil

Co-supervisor's Signature: ..... Date: 27.07.2020

Name: Prof. Linda Dzama Forde

The study investigated the effects of study skills and self-reinforcement counselling on the study behaviour of students in colleges of education (CoE) in the Central and Western Regions of Ghana using quantitative research approach. The study adopted a quasi-experimental design involving the pre-test-post-test control groups with a sample of 60 students, drawn from three selected Colleges of Education (Foso, Komenda, and Wiawso). The students were selected using the lottery method of simple random sampling procedure. The respondents were assigned to experimental and control groups based on their pre-test scores in each of the colleges. Data analysed using frequencies, percentage, ANCOVA and MANCOVA. The study revealed that study skills counselling and self-reinforcement counselling have significant effects on the study behaviour of students with regard to time management, concentration, consultation, note taking, reading and library use skills. Study skills counselling was however more effective in improving study behaviours than self-reinforcement counselling. Gender and age had no impact on students' study behaviour when they were exposed to study skills counselling and self-reinforcement counselling interventions. The study recommended to counselling coordinators and management of the various colleges to ensure that study skills and self-reinforcement counselling interventions are regularly provided as (considered) intervention tools for improving the five (5) dimensions of study behaviour of CoE students in Ghana.

Effective Study Behaviour

Effective Counselling

Self-Reinforcement Counselling

Study Behaviour

Study Skills Counselling

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DEDICATION

To my late husband, Mr. Joseph Anaman. Also to my son, Ebo Anaman.

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ANCOVA	Analysis of Covariance
CoE	Collages of Education
EMIS	Education Management Information System
GES	Ghana Education Service
IoE	Institute of Education
IRB	Institutional Review Board
ISCED	International System of Classification of Education
MANCOVA	Multivariate Analysis of Variance
NCTE	National Council for Tertiary Education
PASW	Predictive Analytic Software
SBI	Study Behaviour Inventory
SHS	Study Habit Survey
SQ3R	Survey Question: Read, Recite and Review
TAFS	Test Analysis for Surveys
UCC	University of Cape Coast

CHAPTER ONE

INTRODUCTION

For several decades, there has been study behaviour and academic performance disparities among students. These disparities may be caused by factors that are social, psychological, cultural, and economic in nature (Nwani, 2016; Reilly, 2014). With effective preparation of students, institutions can help boost students' study behaviour, which in the long run will help enhance their academic performance. One way to look at the educational preparation of students is to focus on their study skills, self-reinforcement and study behaviours. A student may have all the skills required; that is, he or she may be able to take good notes in class (possession of a study skill) but simply may sit in class doodling (the lack of study behaviour). Through effective counselling strategies, teachers and counsellors can help modify the study skills and study behaviours of students, to ensure their educational achievement (Rumfola, 2017). Therefore, it is appropriate for researchers and practitioners in the educational sector to give scholarly attention to the effects that study skills and self-reinforcement counselling can have on the study behaviour of students.

Background to the Study

The world is moving at a fast rate and everyone wants to excel. The approved and meaningful way to do that with ease, is through quality education (Reilly, 2014). In this regard, people of all age groups and ethnic backgrounds spend a lot of their time, money and efforts in pursuing education

in various institutions of learning. Education modifies the behaviour of a person from instinctive to human behaviour. According to Nagaraju (2004), the ultimate goal of education is to encourage learners to learn towards perfection and develop individuality. This implies that Education aims at discovering the aptitudes as well as to progressively prepare people for social activity. Education, therefore, plays a crucial role in fostering self-development as well as the development of human capital for national development.

Within the educational sphere there has been increasing recognition that, gains in access have not matched with gains in recruitment of qualified teachers, and quality of education (Baum & Ma, 2007). Globally, 18 million new primary teachers will be needed in the next seven years just to achieve universal primary education (Anane, 2014). According to Anane, teachers and teacher quality matter and indeed, the quality of teacher education has become a vital issue in recent years. Issues concerning teacher competence, effectiveness, resilience and other dispositional abilities feature prominently in teacher education literature. Developing the professional aspects of initial teacher education is high on the teacher training plans of many countries and especially in Ghana where teacher education programmes and teacher education institutes are being reviewed regularly to meet the current demands and needs of the profession (National Development Planning Commission [NDPC], 2018).

Teacher quality and effectiveness have been seen as the most essential school-related factor impacting on student achievement (Bliss & Mueller, 2017; Tollefson, 2017). Several efforts have been made by Ghana to train

professional teachers. For instance, The Basel Mission established a teacher-catechist theological seminary in Akropong in 1848, followed by another one in Abetifi in 1889. These two and the Catholic Teachers' College at Bla were the only training institutions for teacher training in Ghana until 1909, when the colonial government established the Accra CoE (Milledzi & Saani, 2018). The three private institutions were unable to meet the demands of the country and the government realised the essence of augmenting the initiatives of the Missions which resulted in the establishment of a training college in Accra which later became the teacher training centre for teachers of all mission and government owned teacher training institutions.

According to McWilliam and Kwamena-Poh (1975), the Methodist Mission also instituted one additional training college, initially at Aburi and later transferred it to Kumasi in 1924. Through the efforts of the missionaries and the colonial government, Ghana experienced a remarkable expansion in teacher training institutions. However, despite the rise in the number of certified teachers in the country, the educational sector still could not keep pace with the expansion in basic education. This situation created room for the sector to engage 'untrained teachers' in order to meet the gap created by lack of professional teachers. As of 1938, Ghana had 3,000 teachers within elementary or basic schools with 2012 of them being trained whilst 988 were untrained teachers (Milledzi & Saani, 2018).

By the close of 1950, there was a total of 3,989 certified teachers in Ghanaian basic schools; and in the same year, there were about 5,000 uncertified teachers. The rise in facilities for teacher-training in the early fifties remedied the imbalance between trained and untrained teachers within

the post-independence season and by September 1960; Ghana had about 12,000 trained and about 10,000 untrained teachers. Meanwhile the introduction of the Compulsory Primary Education significantly increased the proportion of untrained teachers (McWilliam & Kwamena-Poh, 1975; Milledzi & Saani, 2018).

Training of teachers in the country has also undergone diverse modifications driven by policy changes in the attempt to meet the country's educational needs. These modifications manifested in training of varied cohorts of teachers with different types of certificates (Addae-Mensah, 2006). Following the extensive review of the nation's educational system in the year 2000, all teacher training colleges were upgraded into diploma-awarding institutions and affiliated to education-oriented universities (Government of Ghana, 2004). In this regard, 38 teacher training colleges operating at a level equivalent to level 4 of the International System of Classification of Education (ISCED 4) were re-designated as College of Education (CoE) to offer tertiary education in 2008. The CoE Act, Act 847 was, as a result, passed to provide legal backing to the new status of the institutions in 2012. The institutions were placed under the National Council for Tertiary Education (NCTE), the government agency responsible for the regulation of tertiary education institutions in Ghana (Bailey, 2014).

Teacher education plays a crucial role in preparing individuals to facilitate the teaching and learning process in schools. In fact, the European Union (2012) determined that within educational institutions, teaching professionals are the most important determinants of how learners will perform; and it is what teachers know, do and care about that matters.

However, many other factors contribute to students' achievement in school, including home factors, school factors and students' personal factors among others. Students lead very busy lives and as a result, devote less time to their studies (Lee & Klugman, 2013).

Studying is considered as observable behaviour and behaviour can be understood as a predisposition that has been developed through a long and complex process (Bashir & Mattoo, 2012). Study behaviour is termed as the methods of study of students. It produces positive academic performance while inefficient study behaviour refers to a student's way of studying, whether systematic, efficient or inefficient (Ayodele & Adebiyi, 2013). This implies that efficient study behaviour leads to academic failure. Students may occasionally experience some changes in their academic work which may be due to a change in their study behaviour. Effective study behaviour, therefore, offers great possibilities for successful achievement in studies. It is an important motivator which affects students' studies. It can, therefore, be seen as a composite strategy which promotes internalisation of knowledge and breeds genuine intellectualism. Effective study behaviour is very essential if the overall goals of the students are to be achieved (Atsiayasiahi & Maiyo, 2015).

Good study behaviour is critical elements for success in schools. However, some CoE students in Ghana are continuously faced with the problem of poor school grades and subsequent withdrawals from college (Institute of Education, University of Cape Coast [IoE, UCC], 2017). This situation of poor school grades and withdrawals may be due to the absence of effective study skills and self-reinforcement counselling. Study behaviour of

the student can affect his or her academic performance drastically (Bashir &

Mattoo, 2012). The push to excel in education has led to an increase in the research of methods and strategies to boost students' understanding of academic issues and improve their success rates. Counselling programmes for students is one of the strategies designed to address the social, emotional, physical and academic difficulties of the students by assisting them to learn about their strengths and weaknesses, in order to improve upon their study behaviour (Abdullahi, 2018).

Productive study skills include effective listening, thinking, asking questions, observing, note-taking, and presenting ideas, regarding discovering new information (Sherafat & Murthy, 2016). According to Palani (2012), in order to establish good study, students require good study attitude, self-reinforcement, and good study skills. This shows that students should be interested in learning and must be able to apply needed study and self-reinforcement skills. On the other hand, inefficient study and self-reinforcement skills may lead to waste of time and learner's energy (Hashemian & Hashemian, 2014). Study skills are students' knowledge of appropriate study strategies and methods and the ability to manage time and other resources to meet the demands of academic tasks.

Credé and Kuncel (2008) defined study skills as the attitudes, behaviour and styles the learners adopt in the process of learning. Good study skills include the competencies associated with recording, remembering, synthesising, and organising using information. Good study skills are academic enablers. Sherafat and Murthy (2016) posited that students can better their learning and subsequently academic performance if they can equip

themselves with good study skills and habits. Good study skills are therefore strategies that facilitate the processing of information and function as critical tools for learning. Study skills like other skills can be taught and learnt. Apparently, educational researches intend to find effective ways to improve students' study behaviour, and most suitable age of learners where they can learn those skills. Through counselling, students can be helped to boost their social and personal skills, and how they need to lead balance, healthy and successful lives, resolve personal and emotional challenges that interfere with academic success.

Counselling services therefore play a critical role in maximizing educational success of students and helping them get the most out of their Education (Awabil, 2013; Egbo, 2015). Counselling services can also assist students to prevent and eliminate barriers to learning. This shows that changes in the way a person thinks, acts and feels about his or her situation can be effective, if such changes are made in the path he or she performs and behaves. Study skills counselling prepares students to develop better self-image and become more confident and less anxious about examination (Egbo).

Abdullahi, Atsua, Amuda and Ago (2013) studied prevention of academic failure through counselling intervention strategies for educational development and found the contributing factors of academic failure to include wrong choice of subjects, excessive non-scholastic activities, nonchalant attitude, and absence of desired goal. Researchers such as Chen (2006), Sharma (2012), and Anwar (2013) have reported that study skills counselling significantly affect students' academic performance. This may mean that study skills and self-reinforcement counselling strategies may have significant

relationships with students' study behaviour which in the long run may lead to increase in their academic performance.

Study skills counselling involves providing systematic coordinated instructions and teaching students how to get greater access to learning materials and developing better study skills (Agi, 2017). The implication is that students become more confident, develop better self-image and have less anxiety about examinations. The indication is that, the changes in the way a person thinks, feels, and acts about his or her situation can be effective, if such changes are made in the ways he or she behaves and performs. In relation to self-reinforcement, it refers to rewarding oneself and building natural rewards into one's own work (Belle, Colette & Ellemers, 2009). Self-reinforcement involves recognition and appreciation for actions that lead to better performance. In order for self-reinforcement to lead to positive outcomes, people must be critical of their own performance. By learning to recognise faults in their work practice, they can gain increased knowledge of their work and recognise appropriate study behaviour for success (Belle, Colette, & Ellemers). In some cases, self-reinforcement can lead to negative outcomes. Lack of honest self-evaluation and the presence of personal and situational rationalisation processes might lead to continued engagement in negative behaviour that can ultimately lead to disaster (Wunnia, 2017).

Bandura's (1986) Social Learning Theory, renamed as Social Cognitive Theory in 1997 has given further explanation to self-reinforcement. According to his theory, the way people think, feel, act and motivate themselves is affected by self-efficacy (Zulkosky, 2009). According to Zulkosky, people lacking self-reinforcement have problems with motivating

themselves to carry out tasks. Consequently, when students have the impression that they will not be able to complete certain tasks, they will not make the effort to fulfil any task (Margolis & McCabe, 2016). What is more, self-reinforcement can influence students' performance, observation, and social persuasion.

The discussions show that good study behaviour or study skills are effective in improving academic achievement in anxiety ridden students. The ideal study skills counselling, therefore, may involve planning and preparing for assignments, projects and examinations taking techniques, remembering and learning strategies, motives and habits of note taking, planning and organisation of time of study. A great deal of research literature provides evidence that study skill and self-reinforcement counselling are both significant variables which determine students' study behaviour and academic performance (Awabil, 2013; Awabil, Kolo, Bellow & Oliagba, 2013; Credé & Kuncel, 2008; Hussain, 2016).

Students' lack of study skill and self-reinforcement counselling is not a situation that should be taken lightly because they have negative effects on students' study behaviour hence poor their academic performance. Understanding the study skill and self-reinforcement counselling techniques as they influence study behaviour of students has been recognised as similarly important. Study skill dimensions such as time management concentration, note taking, consultation and library have been identified by researchers such as Aluede and Onolemhemhen (2011), Atsiayasiahi and Maiyo (2015), Egbo (2015), and Yahaya (2016), as having the possible effects on students' study

behaviour. According to Yahaya, these dimensions serve as motivating factors

or barriers to the attaining and maintaining good study behaviour.

Statement of the Problem

In Ghana, there were 46 Colleges of Education (CoE) in 2017. The core mandate of these colleges is to train human resources specifically teachers, for national development (IoE, UCC, 2017). Teacher trainees also derive personal benefits from this education since it equips them with important knowledge, skills, values, attitudes and behaviours which enable them to teach after school and adjust well in society. Unfortunately, according to statistics section of IoE, UCC, there is a high withdrawal and non-completion rate of students in the CoE in Ghana. In every academic year a number of students, especially in level 100, are withdrawn from the colleges due to poor academic performance, even though they have the potential capacity for academic success (IoE, UCC, 2017; 2018).

At the end of 2014/2015 academic year, 807 level 100 students were referred for failing one (1) to 11 credits hour in their course study of either the first, second or both semesters. Similarly, 1,310 students were made external students (IoE, UCC, 2016). Worst of all, some of the students were continuously withdrawn from the colleges every academic year due to poor grade as shown in Table 1.

Table 1: Admissions and Withdrawals of Students from the Colleges of Education

Academic Year	No of Students Admitted	No of Students Withdrawn	Percentage of Students Withdrawn
2014 /15	13,699	670	4.9
2015/16	13,630	892	6.5
2016/17	15,923	1,325	8.3
2017/18	16,706	1,778	10.6

Source: Statistics Section, IoE, 2018

performance is still a challenge facing the various CoE in Ghana, and as a result, there is the need for a meaningful intervention to be put in place to help reduce it or eliminate it. The withdrawal of students is a great loss to families and the nation as a whole. It is an unnecessary waste of individual, family and national talents and resources. Owusu-Boateng, Acheampong, and Oteng (2015) found that withdrawals from school have problems securing employment and also dropouts engage in crime and other social vices such as armed robbery, prostitution and many others. Therefore, as a basic necessity in the lives of the youth in Ghana, education should be seen as a key factor for development. Some of the students withdrawn from the college see meaning in life again and therefore either threaten or attempted to commit suicide. They explained that their poor parents have hassled to pay their fees for the year only to be booted out for poor performance (askmeghnana.com, 2015).

Several factors are responsible for poor academic performance worldwide. According to IoE, UCC (2018), causes of withdrawal from CoE include weak entry characteristics and low academic performance of some students in some courses especially English, Science and Mathematics. Other factors include lack of well-resourced library facilities, poor study behaviours, low motivation for learning, financial difficulties and emotional problems (Agi, 2017; Atsiayasiahi & Maiyo, 2015; Tollefson, 2017). Of all the factors stated as being related to poor academic performance, poor study behaviour has been generally recognised as the most dominant factor (Awabil, 2013; Sherafat & Murthy, 2016).

Egbo (2015) conducted a study in Enugu State, Nigeria and found that poor study behaviour ranked highest when compared with other factors contributing to poor academic performance of students. Agi also identified poor study behaviour as one of major causes of students' poor academic performance in selected universities in Nigeria. Although poor study behaviour can be modified through counselling, as being done in some developed countries, it appears there is no counselling intervention programme to enable students, particularly in their first year of study, to improve upon their study behaviour. Improvement in study behaviour will minimize withdrawal of students from the colleges due to poor grades and its associated effect on the students, family and the nation as a whole.

To help boost students' study behaviour and academic performance, there is the need for a comprehensive research on how counselling interventions can be used to achieve good study behaviour. Although, the CoE have counselling units, anecdotal evidence indicated that, in practice there are no specific counselling intervention programmes for first year students that help boost their study behaviour. It also appears no study has been conducted in the area of the effects of study skills counselling and self-reinforcement counselling on CoE students' study behaviour. These gaps in actual practice and in the literature that this current study seeks to seeks to investigate the effects of study skills and self-reinforcement counselling on students' study behaviour in CoE in the Central and Western Regions of Ghana.

Assumptions of the Study

1. Study behaviour is related to academic achievement of students. Therefore, the use of appropriate study behaviour would be related positively to improved academic performance.
2. Students are rational and they can learn to modify their study behaviour.
3. Study skills counselling and self-reinforcement counselling can be used to boost students' academic achievement through improvement in study behaviour.
4. Study skills counselling and self-reinforcement counselling are viable approaches for modifying the study behaviour of students.

Purpose of the Study

The purpose of the study was to investigate the effects of study skills counselling and self-reinforcement counselling on study behaviour of CoE students in the Central and Western Regions of Ghana.

The study addressed the following specific objectives:

1. to determine the effects of study skills counselling and self-reinforcement counselling on study behaviour of CoE students in Central and Western regions.
2. to examine the effects of study skills counselling and self-reinforcement counselling on each of five (5) dimensions of study behaviour (that is, time management, concentration consultation, note taking, reading and library use).
3. to ascertain the influence of gender on the study behaviour of participants in study skills counselling and self-reinforcement counselling.

4. to investigate the influence of age on the study behaviour of participants in the study skills counselling and self-reinforcement counselling.

Research Hypotheses

Based on the purpose of the study, the following research hypotheses were formulated to guide the study:

H_o1: There is no statistically significant effect of (a) study skills counselling and (b) self-reinforcement counselling on study behaviour of CoE students in Central and Western Regions.

H_A1: There is a statistically significant effect of (a) study skills counselling and (b) self- reinforcement skills counselling on study behaviour of CoE students in Central and Western Regions.

H_o2: There is no statistically significant effect of (a) study skills counselling and (b) self- reinforcement counselling on each of the dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use).

H_A2: There is statistically significant effect of (a) study skills counselling and (b) self- reinforcement counselling on each of the dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use).

H_o3: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling (b) self-reinforcement counselling and control group on the basis of gender.

H_A3: There is statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of gender.

H_o4: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) and self-reinforcement counselling and control group on the basis of age.

H_A4: There is a statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of age.

Significance of the Study

The findings of the study are significant as it is assumed that it will benefit the following: students, counsellors, teachers and parents and CoE. The study and its findings will benefit the students, as it would give them good strategies and techniques for their studies. The study is useful to the students as it could help in creating better understanding of good study habits, which will lead to the attainment of their pre-planned goals. The findings can also provide a framework for the development of study skills programmes for students especially first year students in colleges.

This study would also be of much significance to the counsellors as it would help them to guide and enlighten the students towards early identification and appropriate study behaviour. It could create an avenue for the counsellors to counsel effectively on study skills dimensions and development of realistic programmes for the students. It will help strategize interventions suitable to assist students who have problems with their studies.

Teachers are considered as the key educators and the study will help them select appropriate techniques to assist students during teaching and learning procedures. The findings from this study would also assist them in addressing the issue of examination malpractice and mass failure and withdrawal among students. Likewise, the acquisition of this knowledge would assist teachers on how to implement the curriculum objectives.

Parents will also benefit from the study because the result from this study would create awareness about simple and common study behaviours suitable for the students at home. Further, the study would be of importance to curriculum experts because the results of the study could help them to understand the role of study skills in the development of good study behaviour. This could lead to the inclusion of study skills in the curricular of schools.

The findings would help establish the effectiveness of the interventions employed in the study in dealing with study behaviour. This study could also be used by future researchers in other areas in order to bring about positive changes and impressive academic performances in school.

Delimitation

The scope of the study was defined in two broad categories: the conceptual and theoretical scope as well as the geographical or institutional scope. Conceptually, the study covered the effects of study skills and self-reinforcement counselling on students' study behaviour. The theories of the study included motivational theories and theories in Counselling. Institutionally, the study was delimited to the CoE in Central and Western

Regions because they represent Central-Western Zone. The public CoE were used for the study.

The first year students in the CoE in Central and Western Regions were focused on in the study to establish the effects of study skills counselling and self-reinforcement counselling on their study behaviour. The study was delimited to first year students because it has been found that they face enormous challenges, with respect to academic work. It has, therefore, been suggested by experts that any effort at improving the study behaviour of students at the tertiary level should target first year students (Agi, 2017; Awabil, 2013). Also only students with poor study behaviour were considered for the study. Students with study behaviour problems are those whose pre-test study behaviour scores between 101 and 200. These students were randomly selected to form the two treatment groups and control group of the study.

There are several dimensions of study behaviour of students that called for investigation. However, this study was delimited to five of the dimensions. These five dimensions are time management, concentration, consultation, note taking, and reading and library use. These dimensions were pooled together to form study behaviour variables. Skills such as writing, assignments, and allotment of time, corrections and examination strategies are equally relevant but were excluded due to the fact that it is very difficult, if not impossible for a single study to be able to cover all aspects of study behaviour. Similarly, self-reinforcement counselling also exposed students to verbal and current rewards. Other rewards like potential and imaginal rewards were not utilized because two rewards were deemed adequate for improving study behaviour.

Variables such as effort of students in learning, personality traits, and learning styles as well as entry characteristic of students were not considered. In relation to interventions, the study was delimited to two interventions: study skills counselling and self-reinforcement counselling.

Limitations

Although every effort was made in the study to reduce the effect of every extraneous variable, some limitations were encountered. Regarding the use of the questionnaire, the close-ended items used limited the participants in giving out more information regarding study behaviour. That is, the researcher had no way of knowing if the respondents might have wished to add any other comments about the issue under investigation. This means, the questionnaire used do not permit the respondents to qualify the chosen response or express a more complex or subtle meaning. Also, the researcher cannot check on whether the respondents are telling the truth, since some respondents may be deliberately falsifying their responses. That is, the subjectivity of the students could not be ruled out.

Definition of Terms

For the purpose of the study, the under listed terminologies were defined operationally to enhance full understanding of the study:

Study Behaviour: This refers to study practices of students with respect to time management, concentration, consultation, note taking and reading and library use.

Study Behaviour Problems: These refer to a student's inability to manage study time effectively, control distractions during study, consult others,

read and use the library effectively and take good notes as indicated by high scores on the Study Behaviour Inventory.

Study Skills Counselling: This is a counselling procedure which exposes students to effective study strategies in order to facilitate the development of good study behaviour without any form of reward (Awabil, 2016).

Self-reinforcement Counselling: This is a counselling technique which exposes students to verbal and current rewards and study practices (application of skills) that would warrant self-administration of rewards with the view to improving study behaviour (Awabil, 2016).

External Students: level 100 students who refused or failed to write the re-sit examination for various reasons and were given the opportunity to stay at home and redeem themselves at another re-sit examination to enable them progress to the second year if passed.

Organisation of the Study

The study is organised into five chapters. Chapter One is the introduction which covers the background to the study, a statement of the problem, purpose of the study as well as hypotheses of the study. It also presents the significance of the study, delimitation and limitations of the study. Chapter Two focuses on the review of existing relevant and related literature on the study. The review is organised under three major areas, namely the concept, theoretical and empirical reviews of both predictor and criterion or outcome variables.

Chapter Three also describes the research methods used in the study. This includes the epistemological orientation of the study, approach to the

study, research design, the population, sample and sampling procedures, research instrument, validity and reliability of instrument, data collection procedure, data processing and analysis, and ethical issues considered. Chapter Four presents the analysis of data, results and the discussion of the findings. The final chapter, which is chapter Five, presents the summary, conclusions, and recommendations of the study. The chapter further presents the suggestions for further study.

Chapter Summary

The purpose of the study through examination of background research regarding study skills and self-reinforcement counselling intervention, and study behaviour of students were identified in this chapter. Along with the purpose, delimitation and limitations of the study, a statement of the problem was presented. Major research hypotheses were outlined. The significance of the problem was discussed and definitions of terms were made. On these foundations, the study proceeded with a detailed description of the research which is a complete review of literature as provided in chapter Two.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews concepts, theories and empirical studies relevant to the study. Specifically, the chapter reviews conceptual issues bordering study skills, study skills counselling, study behaviour or habits and self-reinforcement. Also the theoretical framework guiding the study considers four interrelated theories Skinner's operant reinforcement theory, Bandura's Social Cognitive Theory, Behaviour Modification Theory, and Self-determination Theory. The chapter again reviews some empirical studies which capture the views and ideas of different authors and researchers that are relevant to the problem under study. The empirical review focuses on self-reinforcement counselling and study behaviour as well as study skills counselling and study behaviour.

Conceptual Review

The conceptual review looks at concepts related to the problem under investigation. The concepts were examined to make sure that they were adequate, accurate, and correct to arrive at a generalisation as a result of things seen, experienced, or believed. Specifically, the conceptual review focuses on the concept of study skills, the concept of study behaviour, study strategies, study behaviour and study skills, the concept of reinforcement, the self-reinforcement, effectiveness of counselling, counselling on study skills, school

counsellor and study skills, and using study skills and self-reinforcement counselling strategies to improve study behaviour.

The Concept of Study Skills

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 academic tasks (Credé & Kuncel, 2008). As a consequence, students vary in their studying and learning abilities. As a result, many colleges end up offering supplemental study skills supports for students whose college success may depend on them. These skills are taught in a variety of ways, but given the diverse demands for skill acquisition, a psycho educational group is an attractive option for some students.

Good study skills can be understood as students' knowledge of appropriate study strategies, methods and the ability to manage time and other resources to meet the demands of academic tasks (Crede & Kuncel). According to Armstrong (2014), the acquisition and application of good study skills, primarily in the form of reading and note-taking skills became important issues for educators as far back in the early 1900s. From the 1970s to the 1980s, researchers began to identify themes within study skills that allowed students to excel (Armstrong). These themes include motivation, self-monitoring, and meta-cognition. Although the emphasis of study skills research has been on the individual skills themselves, there has been an increase in research that shifted focus from individual skills to the effect of these skills on academic success factors (Credé & Kuncel; Wernersbach, 2017).

Though study skills have been of interest to researchers since the beginning of the 20th century, no single universally accepted definition of study skills exists within the literature. For instance, Simon (2015) viewed study skills as the techniques and strategies that help a person read or listen for specific purposes with the intent to remember while Wernersbach indicated that study skills are competencies that help the students for acquiring, organising, synthesising, recalling, and using the ideas and information. These skills included a range of skills and synchronised cognitive processes that play a role in increasing the effectiveness and efficiency of learning. Study skills are therefore, approaches applied to learning. They are generally critical to students' success in school. Also, they are considered essential for helping students to acquire good grades, and also useful for students to learn throughout their (Jones & Slate, 2018).

Study skills may tackle the process of organising and taking in new information, or dealing with assessments. According to Kerka (as cited in Awabil, 2016), study skills are learning strategies that help students to organise process and use information effectively. Furthermore, study skills are processes of meta-cognition, which comprise self-awareness of one's thinking and learning (Awabil). Learners who are able to step back and monitor their thinking and learning are able to use strategies for finding out or figuring out what they need to do. Also, it is learning strategies that facilitate the processing of information. Study skills help us to organise and process information. They also help us to remember what we have learned. They work best when we are conscious of our learning processes.

According to Khan (2016), most students start learning or actually learn with less than one week to their examination period. This shows that most students do not learn at the beginning of a semester or term; they only do so when examination is getting nearer. This phenomenon can be attributed to factors other than lack of study skills. Khan (2016) concludes in his study that time management skills can be trained and students can either reinforce the importance of the skills or learn them outright. In addition to the use of time management skills, some students lack an understanding of how specifically to engage in self-directed learning with the content provided by the instructor, (i.e., notes, textbook, online materials, etc.). These skills have been demonstrated to relate directly to academic performance of students as a whole (Jacobson, 2018).

Currently, the kind of students attending CoE in Ghana is changing faster than colleges support them. It has been known that students grow into a new identity while in college, but new supports are required for the new types of students seeking education (Denga, 2017). If developing a self-concept depends on skills building and emotional management, then it follows that a student support must be able to meet the competency and emotional needs of a more diverse range of students. This calls for the need for colleges to enhance their counselling centres in order for them to provide support and guidance to students regarding their study skills and behaviour. The next sub-topic reviewed focuses on the link between study behaviour and study skills of students.

According to Jones and Slate (2018), perspectives on study behaviour can be behavioural, cognitive, or motivational. The behavioural perspective of

study skills addresses the environment, external conditions, and observable behaviour of students. Time management, note taking skills, and the time and place of study are factors that can affect learning. For students to succeed in school, they must be supported and guided by their teachers and mentors for them to adapt appropriate study behaviours that will enhance their academic achievement levels. According to Jones and Slate (2018), the cognitive perspective of study skills examines the process by which students acquire, store, and recall information from memory. From this perspective, students' methods of processing information are recognised for their uniqueness, and because each student processes information differently, academic results are varied for student participants. Students are active learners in this process.

In summary, study skills can be seen as students' knowledge of appropriate study strategies, methods and the ability to manage time and other resources to meet the demands of academic tasks. It is a concept that should be introduced in the early years of education and must continue throughout students' educational experience. Many of the study skills learned in basic school should be reinforced in senior high school to ensure students' academic success. In addition to those skills, new study skills should be introduced in senior high schools to help students succeed in school. Several researchers have found that study skills can enhance the academic achievement of students (Ayodele & Adebiyi, 2013; Wernersbach, 2017).

Categories of Study Skills

Categories of study skills imply the broad approaches through which students can study and the skill chosen by a student will determine the success or otherwise of the student. Various researchers have attempted to categorise

study skills and typical among these is the four broad categories identified by Gettinger and Seibert (2002). These broad categories are as follows:

Repetition or rehearsal-based study strategies: This is identified as the most rudimental strategy and involves repetition, re-reading or rehearsing information. This strategy is very instrumental when storing bits of information for short-term or when the content of the studied material is used regularly. This strategy is simple to learn and apply and as such it is among the maiden study skills used to teach young children (Awabil, 2013).

Procedural or organisational-based study strategies: These study skills comprise behaviours that permit students to optimise the relevance of their study period. Several competencies underlie the development of procedural study skills, including time management, material organisation and development of schedules for consistent study routines (Awabil, 2016). According to Awabil, organisational routines and schedules for studying are most effective when they are personalised by having students construct their own plans for monthly, weekly and daily study.

Cognitive-based study skills: The prime focus of this strategy is to aid students to be involved in critical thinking as far as information they required to learn is concerned (Chauhan, 2015). Thus, the goal of cognitive-based study strategies is to guide students to engage in appropriate thinking about information they are required to learn. Generally, learning is improved if new material appears relevant to the learner. According to information processing theory, the greater knowledge students have about content the more likely they are to think about, understand, and remember it (Abdullahi, Atsua, Amuda, & Ago, 2013). Studying is enhanced when new material is meaningful to

learners, and integrated with their existing knowledge. Besides, information that is stored as a network of connected facts and concepts, called schemata, is more easily learned and retained.

Meta-cognitive-based study skills/strategies: Meta-cognitive strategies are concerned with how students select, monitor and utilise strategies in their stock. The magnitude to which students utilise study skills when the urgency arises is dependent on meta-cognitive competencies (Kagu, 2001). There is, therefore, no doubt that possessing meta-cognitive skills are of extreme relevance to students' academic work.

Specific Study Skills

Quite apart from categories of study skills, there are also specific study skills that students must be exposed to since they help in boosting their success in school and the community at large. Some of the important study skills include planning and organising time for study, note taking, use of library, and concentrating during hours of study (Awabil, 2013; Kagu, 2001).

Note-taking: This is one of the activities believed to aid studying, remembering and consequently academic success. Note-taking when properly done, involves not only reading and writing or listening to lectures and jotting down points but also requires concentration and reading out for necessary facts. It may not be as easy as it seen to the observer. It involves the thought and hearing ability of the individual. According to Denga (2013), note-taking may have detrimental effect for students who are slow in listening efficiency. This calls for the need for teachers and school counsellors to provide guidance for students for effective note-taking in the form of short abbreviations; for example, "b/w" to mean between and "b/4" for before. These abbreviations are

helpful to the slow writer. Urciuoli and Bluestone (2013) emphasised that unless a student has an exceptional memory, it is difficult to master and recall accurately all the main points and relevant details in a study material by merely reading it. It is therefore important to master the skills/strategies for learning effectively.

Preparing to learn: Preparing and planning for learning encompass both physical (environmental), tools, and mental (attitudes, goals, priorities), aspects. Skills that help students prepare to learn include organising one's work and managing time (Wernersbach, 2017). That is, organising one's work by using agenda books, homework planners and notebooks. Also, managing time by developing schedules, prioritising tasks, and using checklists are some of the skills that help students prepare to learn. Arranging the physical environment, including finding a place that is free of distractions and choosing a time of the day that works best for the individual.

Acquiring, processing, and retaining information: Effective learners systematically obtain, organise and retain information. The strategies for students to explore and discover which work best for them include effective reading and application of learning (Ogbodo, 2010). According to Ogbodo effective reading is critical to acquiring information. The survey question, read, recites and review (SQ3R) method, for example, is a systematic approach that helps students discover and retain the important ideas in texts. Effective listening in class is equally important. Taking good notes enables review and retention of materials covered in class. Outlining and summarising help learners see relationship between concepts (Atsiayasiahi & Maiyo, 2015). Also, memory aids such as mnemonics can assist learners. With regard to

applying learning, students demonstrate and apply what they have learned in doing assignments, oral presentations and tests (Buockerign, 2015). Successful test-taking requires both content knowledge and procedural knowledge.

Monitoring, evaluating and reinforcement: A key meta-cognitive process is self-monitoring. While using study strategies, students should periodically ask themselves: What am I trying to accomplish? How well am I using this strategy? And what else could I do to accomplish this task? Monitoring and evaluating strategies include Mood, understand, recall, digest, expand, and review (MURDER). **Mood** refers to a set of positive mood for one to study in. Select the appropriate time, environment and attitude (Ogbodo, 2010). Understand on the other hand marks any information you do not understand in a particular unit; keep a focus on one unit or a manageable group of exercises (Buockerign, 2015).

Recall refers to after studying the unit, stop and put what you have learned into your own words while digest had to do with going back to what you did not understand and reconsider the information (Chauhan, 2015). Contact external expert sources if you still cannot understand it. The next to consider is expand which focuses on asking three kinds of questions concerning the studied materials: a. If I could speak to the author, what questions would I ask or what criticism would I offer? b. How could I apply this material to what I am interested in? and c. How could I make this information interesting and understandable to other students? **Review** refers to going over the materials you have covered. Review what strategies helped you understand and/or retain information in the past and apply these to your current studies (Kehinde, 2011).

Consultation/help-seeking strategies: Another name given to consultation is help-seeking. According to Akafa (2011), consultation or help-seeking is the ability to solicit help from a teacher, textbooks, internet, peers or colleagues when the need arises. Consultation is basically seeking help from another person so as to fully understand some materials or information. Abdullahi, Atsua, Amuda and Ago. (2013) identified a model of help-seeking which has the following steps: become aware of a need to look for help, decide to seek help, identify potential helper(s), use strategies to elicit help, and evaluate help seeking episode.

For effective help-seeking model to occur, the student must first become aware that he/she needs help. This can be done by self-assessment of progress or skill. In the second step the student must consider all available information and decide whether to seek help. This decision may involve a range of factors besides self-assessment of progress or skill, such as threats to self-esteem, fear of embarrassment, and reluctance to be indebted to the helper. In the third step, the learner must find a suitable helper. This suitable helper could be a teacher, classmate or a friend. In step four; the student must decide how to request help, based on his/her knowledge and skills of discourse. Essentially, the request must match the task demands. In the end, the student reflects upon the help seeking event to decide if it was helpful and to determine whether further help is required. According to Awabil (2013), an important aspect of help-seeking behaviour is forming and use of study group. The senior secondary students may make use of study groups so as to enhance their learning. This will be very helpful especially those preparing for external examinations.

Concentration: The ability to direct one's attention on the task at hand is necessary for effective study behaviour. Adams and Reaser (2006) outlined five major conditions that affect concentrations. These include distractions, (internal and external situations) associated with other activities, study materials not convenient as well as poor lightening and physiological conditions. Oladele (as cited in Ghosh, 2012) suggested that to avoid external distraction, students could choose place of study which can stimulate them to study. The essence of this is that once they are in such environment associated only with study, distraction such as anxiety and indecision, day dreaming, mental and physical fatigue that impair the ability to concentrate are avoided. Rumfola (2017) also indicated that, personal problems that keep on flashing to one's mind if not properly tackled and discarded can act as greatest hindrance to concentration.

Time management: Determining time limits for study sets the immediate goal for completing one's work within specific time limits and also helps one to resist recreational distractions. Regarding time planning, Kerka (2017) suggests the use of a work diary; this is because a work diary allows the student to look at everything he has to do and to apportion time to every subject. Organising time in this way helps to minimise worry and indecision that may arise in case of any extra work that has to be slotted in. With this, the diary should be planned on the basis of needs and purposes; allocating adequate time to each task so that no particular task consumes more time than necessary. Learning how to complete assignments on time will help students succeed academically. In the "dynamics of effective study" students are taught how to organise and manage time wisely. Students are taught how to schedule

tasks weekly and monthly to assure success. Study skills course can be introduced in the schools to help enhance the academic achievement of students (Plant, Ericsson, Hill & Asberg, 2015).

Awabil (2013) stated that time management skills are essential for successful students. According to him, time management skills are essential for academic survival and success in the classroom. Similarly, there is the need for students to efficiently use their time outside the classroom. However, developing time management skills is a journey that needs practice and guidance, and as a result students must be guided to manage their time effectively. Awabil suggested that students can enhance their effective time management skills by ensuring that they plan and organise their study life, plan for a suitable place to study, learn to avoid procrastination, and create a term/semester, weekly and daily schedules. Rightful utilisation of study time is a key to efficient and effective study. Some researchers are of the view that how to organise and make the most out of his/her study time one of the most important decisions a student will make in college is how to organize and make the most out of his/her study time (Abdullahi, 2014; Plant, Ericsson, Hill, & Asberg, 2015).

Library use skills strategies: Libraries are valuable source of books, journals, periodicals and articles for research and learning. Modern libraries also have internet facilities to enable users' access materials electronically. The importance of libraries cannot be over-emphasised. Egbule (2009) suggested that students should cultivate the habit of reading in the library as much as possible because of the availability of reference books, in addition to its quietness and fewer distracting influences. Similarly, Ohene (2010) indicated

that libraries provide students with up-to-date books, magazines, periodicals and other sources of materials on many subjects. The availability of these resources help students write good assignments. Therefore, there is the need for students to develop and adopt appropriate library use strategies that will help them to learn better. School counsellors are in a better position to provide such a support or guide.

There are many strategies that can be used to assist students in making use of libraries effectively. Some of these strategies include developing study the plan of the library and leaflets that are available, taking advantage of any guided tours of the library offered by library staff, asking the librarians for help when the need arises, and entering and walking around the library personally in order to have an idea of where materials are located (Awabil, 2013). Through effective guidance, students will be in a better position to adopt appropriate library usage skills/strategies that will help boost their study behaviour positively. This situation in the long run will help enhance students' academic performance significantly. The next sub-topic to review is therefore, the concept of study behaviour.

The Concept of Study Behaviour

Generally, study means application of the mind to a problem or subject, a branch of learning or an investigation of a particular subject (Nagaraju, 2004). Habit on the other hand refers to fixed routine responses to a particular situation by human being. Habit can also be seen as a pattern of various activities which are done by the learner without conscious efforts. It implies a fixed routine response to a specific situation. Everything that we do as part of daily routine such as walking, talking, dressing, eating, writing,

reading, driving among others are the activities performed by people who seem to be quite easy and mechanical, though initially they are quite difficult to perform. Study behaviour, therefore, typically denotes the degree to which the student engages in regular acts of studying that are characterised by appropriate studying routines occurring in an environment that is conducive to studying (Crede & Kuncel, 2008).

According to Freeman and Morss (2016), if an action is repeated several times under similar circumstances, it is done involuntarily without much effort; it is done as reflex action. It is also known as habit of the particular person. Habits are formed, learned and developed in a planned way. Habits are very important and play significant role in shaping the personality of the individual. Education inculcates proper habits in the students. Habits like thinking properly or reasoning, for instance the habit of being punctual helps pupil to adjust, learn and achieve all essential knowledge and skills in a short time with great facility in order to live meaningful in the society (Ogbodo, 2015).

Study behaviour typically denotes the degree to which the student engages in regular acts of studying that are characterised by appropriate studying routines such as review of materials occurring in an environment that is conducive to studying (Kemjika, 2018). In all, the definitions and explanations regarding study behaviour in the case of this study show that study behaviour is the student's way of study whether systematic, efficient or inefficient. Good study behaviours exhibited by students are perceived to be one of the major determinants of students' academic performance (Abdullahi, Atsua, Amuda, & Ago, 2013, Yoloye, 2014). That is why efforts are made by

schools, teachers, counsellors, and policy makers to develop and improve study behaviour among students. Students from the various CoE in Ghana low academic performance (Nkrumah, 2014) may be as a result of their poor study behaviour. Low or poor academic performance of students is also link with poor study skills and behaviour (Plant et al., 2015; Yahaya, 2016). This calls for the need for students to adopt or adapt appropriate and meaningful study skills or strategies that will in turn help boost performance in school. The next sub-topic to review is therefore, study skills/strategies.

Study Behaviour and Study Skills

Study behaviour is often referred to as a fundamental tool that can help students to improve their learning and performance. For example, Weiner (2013) posited that foreign language students who use effective study behaviour are able to exhibit higher academic performance than those with poor study behaviour, suggesting that the use of study behaviour is strongly related to academic achievement. Effective study behaviour is described as prerequisite for putting students on a path of educational success. The mantra that permeates much of the educational process is that effective study behaviour is consistently related to good academic performance (Reilly, 2014).

Effective study behaviour among students is the essential key in helping them to master the concepts being studied (Zimmerman, 2013). They are the systematically patterned goal-oriented or results-determined behaviour that students willingly and consistently adopt in their studies with the view to attaining academic success. Study behaviour is also seen as a strategic study schedule or the series of constructive study activities such as time

management, concentration, consultation, note taking reading and library use embarked upon by students with a view to ensuring learning effectiveness and enhancing academic performance (Bliss, 2014; Mertes, 2015).

Current conceptions emphasise study behaviour as a knowledge-construction process, a dedicated schedule comprising uninterrupted time to study and learn and attain the aims of studying. As Aluede and Onolemhemhen (2011) put it, when you read, you skim the surface but when you study, you discover the treasure within the context of studying. Meaningful studying is a cognitive, meta-cognitive and affective activity which is characterised by the learner's active, cumulative, goal-oriented, and self-regulated behaviour. Importantly, the student's attitudes and perceptions are thought to dominate the outcome of the process (Gbore, 2012). According to Kumar (2012), students do not merely 'take in' the materials to be learnt, but rather select information on the basis of their pre-existing knowledge and interpret the received information in an attitudinally perceived manner. The attitude of developing good study skills may include carefully reviewing work after lectures, taking proper notes in class, and revising before each lecture (Nadinloyi, Hajloo, Garamaleki & Sadeghi, 2013; Nwani, 2016).

Some researchers have found that many secondary students in Nigeria have poor study skills and behaviour (Akafa, 2011; Yahaya, 2016). According to Ogunmakin (2016), the retarded educational performance of many students has been attributed to inappropriate study skills and behaviour. Poor study skills and behaviour of students may lead to defective examination strategies, defective note-taking, poor concentration, and lack of teacher consultation. These challenges can distort the materials acquired by students, stored during

learning and the reproduction of learned materials during examination. The net effect of this is poor academic performance (Kagu, 2004).

A person with poor study skills will behave poorly academically and will not be able to learn properly (Atsiayasiahi & Maiyo, 2015). It is generally believed that a student learns effective study skills and behaviour in school. So CoE students are generally assumed to have effective study skills and behaviour; but the environment of school and college are very different and the need for effective study skills and behaviour is even more at college level as compared to school.

According to Atsiayasiahi and Maiyo (2015), there are four major reasons as to why teachers should focus helping their students in developing appropriate study skills and behaviour. The first reason is that despite availability of good study materials and the best instructors, instructors often realise that students have not learned well. The second reason is that many students do not know how to think and study properly. Thus, there is a great need to inculcate good study behaviour in students either by the instructor through motivating them or students themselves by self-regulating them. The third reason is that, many talents remain underdeveloped due to less attention given to their academic and personal growth. The last one states that there has been marked decline in average weekly study time for CoE students.

There are several benefits that come to students when they adopt appropriate study skills and behaviour. The very first thing that matters to students is "marks" in examination. Students with effective study skills and behaviour often score good percentage in their examinations (Ogunmakin, 2016). Adopting appropriate study skills and effective study behaviour results

in longer retention of concepts as well as aiding students to spend their time more productively and efficiently (Wunnia, 2017). Not only can these, but also through effective study behaviour students get positive feelings about themselves and their abilities (Anameze, 2017).

Implication is that students become more confident and develop better self-image and less anxiety about examination without tears. The assumption is that changes in the way a person thinks, feels, and acts about his/her situation can be effective if such changes are made in the path he/she behaves and perform (Wunnia, 2017). Therefore, students must be reinforced by teachers and counsellors to understand themselves in order to adopt appropriate study skills and behaviour the fit their personality. The next sub-topic therefore focuses on the concept of reinforcement.

The Concept of Reinforcement

Reinforcement is a behaviour management system in which reinforcers are dispensed for a variety of classroom or school behaviour (Brown, Brown, Beale & Gould, 2014). The consequences brought about by a particular behaviour can be pleasant or unpleasant for the individual and others. In other words, it is a concept that determines the probability of response and frequency of behaviour. It may take the form of comments of approval, smile, money, handshakes, clapping and the like. This technically is different from every day conversation when the people used the term 'reinforcement' to mean a reward. Usually a reward is something given in return for service, merit or achievement and sometimes both terms are interchangeable. Therefore, reinforcement is the presence of using reinforcer to increase the frequency of behaviour (Tope, 2015).

According to Ng and Freeman (2018), a reinforcer is any event or stimulus that follows behaviour closely in time and increases the frequency of that behaviour. In other words, reinforcement is the procedure of using a reinforcer to increase the rate of behaviour. It is the most important element of most behaviour change (Ng & Freeman). It should be noted that activities, foods, or items that are generally considered pleasant or enjoyable by others may not necessarily be reinforcing. For example, if a child receives a piece of chocolate when he asks for one and the frequency of "chocolate-requesting behaviour" increases, the chocolate can be seen as a reinforcer that reinforces "chocolate-requesting behaviour." On the other hand, if chocolate-requesting behaviour does not increase, the chocolate cannot be considered a reinforcer.

Self-reinforcement

From the perspective Bandura's (1976) Social Learning Theory, people are seen as capable of exercising some control over their own behaviour. Among the various self-regulatory phenomena that have been investigated within this framework is self-reinforcement which also occupies a prominent position. In this process, individuals regulate their behaviour by making self-reinforcement conditional upon matching self-prescribed standards of performance. Acknowledgement of self-regulatory processes has added a new dimension to experimental analyses of reinforcement. In such situations, control is vested to a large extent in the hands of individuals themselves: they set their own goals, they monitor and evaluate their own performances, and they serve as their owning agents (Reilly, 2014).

Self-reinforcement has several defining properties and among them is control of reinforcers. The important feature is that, the individual exercises

full control over the reinforcers so that they are freely available for taking. In studies of self-reinforcement, subjects have at their disposal a generous supply of tangible rewards which they are free to administer to themselves at any time in whatever quantities they choose (Bandura, 1977). Though symbolic and evaluative reinforcers have received less study, people can produce self-approving and self-critical reactions most of the time.

Although reinforcers are freely available, their self-administration is made conditional upon performing requisite behaviour. Therefore, a second critical feature of self-reinforcement is the self-prescription of a performance requirement. This entails self-denial of rewards until the appropriate or conditional behaviour has been achieved. The regulated use of incentives may involve not only performance requirements but also exercise of control over the amount of self-reinforcement (Bandura as cited in Bernard, 2013).

According to Awabil (2016), self-reinforcement requires adoption of performance standards for determining the occasions on which a given behaviour warrants self-reward. Performances that match or exceed the minimum criterion serve as discriminative cues for self-reward, meanwhile reinforcers are withheld for substandard performances. The standards by which the adequacy of behaviour is judged vary in complexity ranging from simple qualitative discernments of behaviour to relational rules (Awabil). For most human activities including study skills and behaviour, there are no absolute measures of adequacy. For instance, the scores obtained on tests in themselves convey insufficient information for self-appraisal. When adequacy is defined relationally, performances are evaluated by comparing them with the attainments of others. A student who achieves a score of 115 points on an

examination and whose personal standard is to be in the upper 10 percent of the group will have no basis for making either a positive or negative self-assessment, without knowing the accomplishments of others.

In performances gauged by social criteria, self-appraisals require relational comparisons of at least three sources of information to judge a given performance: absolute performance level, one's own personal standards, and a social referent. The referential comparisons may take different forms for different tasks. For some regular activities, standard norms based on representative groups are used to determine one's relative standing. For other endeavours, people compare themselves to particular associates in similar situations. In most activities, individuals use their previous behaviour as the reference against which to judge their on-going performances (Awabil, 2016; Duff, Boyle, Dunleavy & Ferguson, 2017).

Theorising and research in the area of self-reinforcement distinguishes between the operation and the process of self-reinforcement. The operation is defined as the self-administration of freely accessible reinforcers contingent upon requisite performances whilst the process refers to the resulting increase in the conditional performances (Duff et al.). Bandura, 1977 viewed Social Learning Theory as a process by which consequences affect behaviour as similar regardless of whether reinforcers are administered by oneself or by others. It is before rewards are administered that the main differences between externally and self-regulated reinforcement arise. As earlier stated, the latter practice entails at least three component processes: adoption of, and adherence to, reference standards; comparison of performance against standards to

determine when it is appropriate to engage in self-reward; and self-privation of reinforcers for insufficient performances (Bandura, 1977).

According to Bandura, behavioural standards for determining self-reinforcement responses can be established either by tuition or by modelling. In relation to tuition, adults prescribe standards that define the behaviour worthy of reward. They generally respond positively when children achieve or exceed the standards and negatively when their behaviour falls short of the valued levels. As a result of such differential reactions, children eventually come to respond to their own behaviour in self-rewarding or self-punishing ways, depending on how it departs from the evaluative standards set by others.

The second factor that can be established with regard to behavioural standards for determining self-reinforcement is modelling. The influence of modelling in the transmission of differential standards of self-reinforcement has received substantial attention. In the paradigm typically used to study this process, children observe models performing a task in which the models adopt either high or low performance standards for self-reward (Bandura). When models attain or exceed their performance requirements, the models reward themselves tangibly and voice self-praise, but when they fall short of their self-prescribed requirements, they deny themselves freely available rewards and react self-critically (Biggs, 2014).

One may posit that children tend to adopt standards modelled by others, judge their own performances relative to those standards, and reinforce themselves accordingly. Buockerign (2015) posits that children who are exposed to models who set high standards reward themselves only when they achieve superior performances, whereas children exposed to models who

regard low achievements as sufficient reinforce themselves for minimal performances (Buockerign). The behavioural standards of adults are affected by modelling influences as are those of children. Modelling has proved to be highly efficacious way of instituting not only performance standards, but even the generosity with which differential attainments are self-reinforced (Chauhan, 2015). Through effective guidance and counselling interventions, students can be guided or assisted to identify meaningful role models who will positively impact on their study behaviour and subsequently their academic success in general. The next sub-topic reviews effectiveness of counselling intervention.

Effective Counselling

Generally, counselling is an interpersonal communication which has an objective of assisting students to understand their problems individually and to restore them according to their ability without external advice. According to Aluede and Onolemhemhen (2011), counselling is a process that is designed to help an individual solve some of his/her problems or assist the individual in planning the future. Corey (2012) equates counselling to helping, suggesting that prospective counsellors can be drawn from professional, semi-professional and layman populations; hence counselling is a specialised and professional activity.

However, some experts disagree that helping and counselling are the same process. Gibson and Mitchel (2013) argue that professional counselling involves an interpersonal relationship between someone actively seeking help and someone willing to give help to be given and received. They further add that the process of counselling is directed towards people who experience

difficulties as they live through the normal stages of life-span development. This shows that counselling includes work with individuals and with relationships which may be developmental, crisis support, psychotherapeutic, guiding or problem solving with the aim of giving the client an opportunity to explore, discover and clarify. Counselling is also viewed as a special kind of helping relationship, as a repertoire of interventions, as a psychological process, or in terms of either its goals, or the people who counsel, or its relationship to psychotherapy (Shertzer & Stone, 2014).

Counselling is a means of communication between the counsellor and counselee(s) in which the counsellor assists the counselee to understand both the negative and positive life challenges. This, therefore, calls for counsellors in CoE to acquire highly effective skills to be able to assist students understand the learning challenges. Fontana (as cited in Myrick, 2013) argued that counsellors should take an active interest in all students' activities in order to develop an atmosphere of approachability so that they can resolve the current crises effectively through counselling. However, Schmidt (2014) posits that effective counselling is often hindered by the unavailability of time especially when the counsellor has too many students to cope with as he/she needs to know their individual problems.

According to Makinde (2013, counselling is effective if the number of students or clients assign to a counsellor is manageable. This is so because the counsellor will be able to attend to and assist individual students with maximum attention for counselling to be effective, all resolutions brought about in students should be the result of action taken by the counselees themselves (Pietrofesa, Beinstern & Stanford, 2015). Neukrug (2017) concurs

by remarking that students should be counselled and guided positively in a way that will promote their self-efficacy, self-esteem, self-determination and inculcate a feeling of independence in them. When one thinks of adult learners and how to approach them as advisors and instructors, several aspects of their adult status usually come to mind. Among these are the facts that adults play multiple roles in their lives and as such often have anxiety about returning to school, and that many times they are experiencing some sort of life transition at the time, they decide to return to school. One characteristic of current and prospective adult students that is often overlooked, particularly by the administration, is the fact that they are consumers and are generally looking for the most out of their time and money (Egbo, 2015).

Muthoni (2013) indicated that adult students and most students at the tertiary level need different kinds of support and assistance from family, friends, and institutions of higher learning (Muthoni). They usually have difficulties juggling the roles of student, worker, and family member. Adult students need help in building their self-confidence as students, in acquiring or refreshing study skills, and in managing their time and other resources while in school (Muthoni). In addition, adult students benefit from opportunities to interact with their peers and need to be actively involved in the educational process through sharing their relevant work and life experiences. How does counselling achieve this?

Some researchers (Makarfi, 2002; Musika & Bukaliya, 2015; Parcover, Dunton, Gehlert & Mitchell, 2016) are of the view that effectiveness of counselling on students' learning motivation help the university to effectively communicate with students using different media and technology. With this,

the counsellor in conjunction with academics do follow-ups and encourage students who leg behind counsellor to ensure students get all necessary learning materials on registration. This is achieved with the help of all departments of the university counsellors through follow-ups to ensure that students improve upon their studies using different means and media. At the same time, counsellor works with academics to check on students who do not turn-up for lessons and give necessary support where need be (Adisa, 2007). Through effective counselling, institutions will be able to help enhance students study skills and behaviour. The next sub-topic of the review session focuses on study skills counselling.

Study Skills Counselling

Study skills counselling involves providing systematic coordinated instructions to students and teaching them how to get greater access to learning materials and developing better study skills (Unachukwu & Igborgbor, 2013). Collaboration, empowerment, and respect for a child's unique strengths and resources are essential for effective counselling. Some students may require counselling in order to self-direct their learning (Awabil, 2007). This counselling may include helping students develop an awareness of their beliefs about their abilities and the role they play in choosing to learn or not to learn. Counselling activities that will contribute to helping children develop their awareness include thinking journals, graphic organisers, peer interviews, and group discussions (Barki & Mukhopadhyay, 2014).

Counselling can be a potentially powerful tool for counsellors to use in helping students develop critical academic thinking pattern and study skills (Coy, 2014). Counselling tends to enhance the comfort level of the counselee

and he/she might be more willing to share and learn from other people (Faber, 2015). When done in group session, counselling becomes more interesting since participants are able to learn from each other. Counselling students in a group setting has been shown to be an effective technique for encouraging positive changes and boosting academic success (Gordon, 2014).

Counselling can help students become better problem solvers, improve their decision-making skills, and enhance their learning skills (Lunenbury, 2017). It can be very effective with students at the tertiary level because their intellectual development can enable them to understand the objectives of counselling and be able to communicate effectively (Light & Alexakos, 2017). Since school counsellors are in a position to deliver group counselling, they are also in a situation to develop and evaluate group counselling programmes that target student learning needs. Learning to think occurs within a social context such as a counselling group which can be organised by school counsellors. School counsellors are well qualified and prepared to help students improve their academic performance trough counselling.

General, academic support has been considered a major part of the school counsellor's role. According to Miller (2012), in today's technologically advance world, school counsellor's chief mission is still to support the academic achievement of all students. Therefore, there is the need for schools counsellors to be prepared for the ever-changing world of the 21st century. Schools are seeking counsellors who employ personal commitment to assisting administrators, teachers, and other school members in helping students as they become acclimated to tertiary institutions and the academic rigours (McEachern, 2013).

At the tertiary level, particularly in the various CoE in Ghana, counsellors must collaborate with teachers to implement programmes that help students develop an appropriate and reasonable academic and work ethic. School counsellor's role should first be an educator, and support students in their progress through school (Zakaria, 2016). The counsellor's role is to facilitate students' development of time management skills and solid work habits so students can successfully complete homework/assignments, and also enhance their study skills and behaviour (Webb, Brigman & Campbell, 2017). The counsellor's role is not only to facilitate appropriate skill building but also to be an advocate for students.

According to Odeleye (2017), the school counsellor should assume the role of a leader in the school to help teachers and administrators increase student achievement. As part of the school counsellor's role to address the academic needs of all students, he/she should routinely review each student's progress on regular basis. This will allow the counsellor and students to make revisions to their study plans as changes occur. Counsellors are relied on to plan programmes that make schools inviting places for everyone to study, learn, and develop (Kangai, Rupande & Rugonye, 2017). Through counselling, counsellors can help enhance the study skills of students in order to improve their study behaviour and academic success in the long run.

Using Study Skills Counselling to Improve Study Behaviour

Generally, students at the tertiary level of education encounter diverse forms of academic stress, comprising demonstration of the tendency to adapt challenging materials under time limitation (Adegbija, 2012). These obstacles have the potency of compounding students' vision of realising their full

academic potential partly because they might not have acquired optimal learning and thinking strategies required for academic excellence (Dehghani & Soltanalgharaei, 2014). Therefore, to help boost students' academic success, there is the need to identify study strategies and skills that help enhance students' study behaviour positively.

Study skills counselling involves the process of providing coordinated teaching on skills to be applied in studying (Simon, 2015). According to Kabate (2016), study skills counselling are the process of providing systematic coordinated instructions and teaching how to obtain greater access to learning materials and developing better study skills. These are usually done in sessions with each session aimed at assisting students to identify the skills they wish to utilise to succeed in their academic life and beyond. During such counselling sessions, the students will learn about time management and its value, concentration, consultation, teaching on making time table for studying, home works and assignment, note taking and forming special notes reading and library use when need arises.

Effective study skills promote academic excellence and these can only be guaranteed with effective study skills counselling (Awabil, 2013). The argument of this study is that study skills counselling are of immense importance to students in numerous ways. The researcher noted, among other things that students become thoughtful and independent learners in addition to being more efficient when they obtain study skills counselling. Similarly, study skills counselling enhances students learning behaviour in diverse ways by equipping them with how to comprehend the core points when reading (Simon, 2015). Likewise, even students who develop study skills on their own

can learn to study more effectively and efficiently through such trainings (Carey, Carey, Hatch, Lapan & Whiston, 2016).

Through study skills counselling, students are taught on how to scan and understand the meaning, ask questions and answer appropriately as well as how to do proper reviewing, reciting and recalling anytime they are studying. Similarly, upon investigating effectiveness of study skills counselling in reducing study behaviour problems of secondary school students in Kaduna State, Akafa (2011) came to the conclusion that study skills counselling significantly leads to positive learning behaviours. This means, effective study skills promote academic excellence through demonstration of meaningful study behaviour. According to Awabil (2016), through study skills counselling, students become more efficient, thoughtful and independent learners. Likewise, students who are able to develop study skills on their own have the opportunity to learn more effectively and efficiently through explicit instruction. Awabil added that study skills instruction has been identified to enhance academic performance and strategic knowledge.

Study skills counselling also help learners to prepare effectively for their examinations and appropriate ways of answering questions. Simon (2015) noted that success in all academic content areas is often associated with good study skills. Whereas some students develop effective ways of studying on their own following study skills instructions, a significant proportion of students will not develop such skills without well-coordinated and articulated training and regular practice (Kangai, Rupande & Rugonye, 2017). This may mean that for students to be successful in classroom, effective methods or techniques must be adopted while learning. As a result, study skills

counselling is generally delivered to students so as to equip and help them to feel competent and confident about their ability to learn, acquire the ability to learn how to learn, and prepare for life-long learning not just academic learning (Kangai et al., 2017). Study skills training if properly delivered to the students add tremendously to their academic performance.

Using Self-Reinforcement Counselling to Improve Study Behaviour

The concept of self-reinforcement has been conceptualised by different scholars form varied viewpoints. Self-reinforcement as conceived by Bandura (1977) constituted the process by which individuals enhance and maintain their own behaviour by means of rewarding themselves with rewards that they control whenever they attain self-prescribed standards. Bandura indicated that by making self-reinforcement conditional upon performance attainments, human beings have the tendency to reduce aversive behaviour, thereby creating a natural source of reinforcement for their efforts. Emievil (2013), however held that self-reinforcement comprise presentation of rewards as a result of the occurrence of a desired behaviour.

Self-reinforcement is aimed at strengthening behaviour and that individuals can offer themselves rewards after engaging in specified behaviour. According to Corey (2012), self-reinforcement encompasses planning by the client of appropriate rewards and of the situations under which they were used. The components of self-reinforcement include selection of appropriate rewards, delivery of self-reinforcements, timing of self-reinforcements, and planning for self-change maintenance (Chauhan, 2015).

Study behaviour can be improved substantially through self-reinforcement/reward. Okobiah and Okorodudu (2014) posit that approaches

through which behaviours can be increased include reinforcement. When a student has self-reinforcements produced by others together with internal reinforcement, he/she tend to have improved study behaviour than their colleagues who lack these reinforcements (Duff, Boyle, Dunleavy & Ferguson 2017). Self-reinforcement as a self-modification approach has a number of elements which when well utilised can enhance study behaviour. Whilst some writers report three components others claim four components of self-reinforcement exist. For instance, Bandura (1976) indicated that there are four main components or properties of self-reinforcement which are:

Control of reinforcers: This implies that the client exercises full control over the reinforcers in order to be free to administer to themselves at any time irrespective of the quantity.

Adoption of performance standards: Self-reinforcement necessitates the implementation of performance standards in order to determine the situations upon which a given behaviour deserves self-reinforcement. Performances matching or exceeding the minimum criterion in most instances serve as discriminative signals toward self-reinforcement; meanwhile, reinforcers are withheld in the face of sub-standard performances. Bandura (1978) further noted that those standards may be attained either by means of direct training or as a result of modelling influences.

Conditional self-administration: This is self-prescription of an execution precondition. This comprises self-denial of rewards until the appropriate or conditional behaviour such as positive learning behaviour is attained.

Self-monitoring: With this, people monitoring their performance or behaviour obtains whether they have achieved their goals and then reward themselves for

goal realisation. Bandura (1976) noted that people who monitor their behaviour as well as goal attainments and reward themselves for goal achievement more often perform better than their colleagues who monitor their own actions and goal attainment without engaging in overt self-reinforcement.

In addition to identifying the specific reward, there is the need to consciously work out approaches to administer the rewards to achieve the expected behaviour such are adoption of better study behaviours. People must, therefore, be aware about what needs to be done in presenting themselves with a reward. With respect to when to administer the rewards to oneself, students have to offer the rewards at specific periods in order to guarantee the maximisation of self-reinforcement approach which will help enhance study behaviour and in the long run boost academic performance of students.

Theoretical Review

The theoretical framework of the study was made up of multiple related theories that were critically reviewed and analysed to form a theoretical structure that supported the argument of the study. These theories are interconnected ideas that condense and organises knowledge about the influential role of study skills and self-reinforcement counselling interventions on the effectiveness of students' study behaviour. The theoretical framework is a collection of interrelated ideas based on the theories used to explain the phenomenon. The phenomenon under study was effects of study skills and self-reinforcement counselling on students' study behaviour in CoE in Ghana, focusing on colleges in the Central and Western regions of Ghana. This theoretical framework helped the researcher to see clearly the variables of the

study. It also provided the researcher with a general framework for data analysis. The theories reviewed were Skinner's operant behavioural theory, social cognitive theory, behaviour modification theory, and Thorndike's theory of reinforcement.

Skinner's operant behavioural theory

Operant conditioning is a concept that refers to the process of changing the frequency of behaviour (the operant) by following it with reinforcement (which will make the behaviour more frequent in future) or punishment which should make the behaviour less frequent in future (Telford & Sawrey, 2016). If a reward follows, the person is likely to repeat the behaviour again in the future; if a punishment follows the person is less likely to repeat the behaviour. There are many assumptions for operant conditioning. These assumptions, according to Telford and Sawrey (2016), include the following:

1. Learning is behavioural change.
2. Behavioural change (learning) is functionally related to change in the environment.
3. The lawful relationship between behaviour and the environment can be determined only if behavioural properties and environmental conditions are defined in physical terms and observed under carefully controlled conditions.
4. Data from the environmental study of behaviour are the only acceptable sources of information about the causes of the behaviour.
5. The behaviour of the individual organism is the appropriate data source.
6. The dynamics of an organism's interaction with the environment is the same for all species.

According to Skinner (as cited in Agi, 2017) reinforcers can be positive or negative and both are used to strengthen behaviour. Positive reinforcement is any stimulus which when presented increases the probability of the preceding responses. Positive reinforcement involves strengthening a target behaviour, that is, increasing and maintaining the probability that a particular behaviour will be repeated, by presenting a stimulus (called a positive reinforcer) immediately after the behaviour has occurred (Agi, 2017). Praise, recognition, food, water, medals are possible forms of positive reinforcers and rewards among others.

Negative reinforcement on the other hand refers to the removal of any stimulus or withdrawal of such which increases the likelihood of a particular behaviour occurring (Baron & Galizio, 2015). Worthy of note is that negative reinforcement is not punishment. Negative reinforcement is the main opponent to positive reinforcement. Negative reinforcement does not however necessarily mean something bad; it means the removal of a stimulus and/or the addition of a consequence. According to Baron and Galizio, the goal of negative reinforcement is the same with that of positive reinforcement. That is, to increase the strength of a particular behaviour. The method is however different. Instead of supplying desirable stimulus, one removes an unpleasant and aversive stimulus whenever target behaviour is exhibited. By removing something unwanted the student is encouraged to learn new behaviours.

The implication of operant condition theory to this study is that, human behaviour which is important is the feelings associated with behaviour that is controlled by conditioning. When previous behaviour has been rewarded, students are likely to repeat the behaviour happily and willingly, feeling that

they are doing what they 'want' to be doing. If, on the other hand, students choose behaviour in order to avoid repeating a negative reinforcement and may behave appropriately. Therefore, a student may study (the operant) and this practice may be followed by a reward (positive reinforcement) or a punishment. If a reward follows (good grade, enjoyable feeling or peers' approval) the student will be likely to repeat the practice in future. If a punishment (failing of examination) follows, the student will be less likely to repeat the behaviour. In this case, learning will be repeatedly associated with a punishment, and so the behaviour becomes less frequent or extinct with time.

Therefore, Skinner's concept of positive reinforcement was applied in the study. For instance, participants in the self-reinforcement skills counselling group gave themselves positive reinforcement after practising good study behaviour. Besides, good study behaviour is a means to an end. Students practise good study behaviour in order to obtain good grades. When they obtain good grades they are likely to practise good study behaviour in the future. Good grades then become positive reinforcers. Thus, the study is anchored in Skinner's concept of positive reinforcement.

Social Cognitive Theory

Social Cognitive Theory was propounded by Albert Bandura as early as in the 1960s and strongly lays emphasis on one's cognition. It suggests that the mind is an active force that constructs one's reality selectively, encodes information, performs behaviour on the basis of values and expectations and impose structure on its own actions (Bandura, 1997). It is through an understanding of the processes involved in one's construction of reality that enables human behaviour to be understood, predicted and changed. In view of

the theory, the student's academic achievement is a product of interaction of his/her personality and consequently, study behaviour he/she develops base on his/her expectations of the outcome of his/her actions (Bandura).

According to Bandura (as cited in Schunk & Miller, 2012), an individual has the capacity to learn within a social environment through study and verbal interaction. An individual will copy any behaviour that they are rewarded for. Behaviours are learned through interactions with the variety of socialising agents to which one is exposed. It is through these interactions where behaviours are either adapted or extinguished. According to Schunk and Miller (2012), people learn from what they do in their everyday activities. It is the daily activities that influence their identity development, social relationships and abilities. It is during these activities that we begin to see and develop our abilities and begin to identify with the leaders of the activities.

Social Cognitive Theory takes into consideration how people perceive themselves or how they appraise their own level of competence in the process of learning. As a result, several concepts have emerged. One of such concepts is self-efficacy, which has emerged as a prominent and influential concept within the theory (Bandura & Cervone, 1983). Self-efficacy reflects a person's beliefs about whether he or she can achieve a given level of success at a particular task (Wheeler & Ladd, 2012). Students with greater self-efficacy are more confident in their abilities to be successful when compared to their peers with lower self-efficacy. People with low self-efficacy usually dwell on their perceived inadequacy and the difficulties of their situation. Self-efficacy has proven useful for understanding students' motivation and achievement in academic contexts. Higher levels of perceived self-efficacy have been

associated with greater choice, persistence, and with more effective strategy use (Lent & Hackett, 2017).

Consistent with the tenets of Social Cognitive Theory, self-efficacy is viewed as a product of individuals' own past performances, the observation and verbal persuasion of others in the environment, and individuals' on-going physiological state (Bandura & Schunk, 1981). Rather than directly affecting their self-efficacy, these sources of information are weighed and filtered through a process known as cognitive appraisal. For instance, a prior failure may not be detrimental to self-efficacy if students believe a reason such as prior sickness was no-longer relevant for the poor performance. Interventions based on social cognitive theory and designed to increase self-efficacy in school-aged children have proven to be effective (Bandura, 1997). Conversely, people with high self-efficacy will see a situation as a challenge rather than a problem and focus on what needs to be done. They manage threats well and can apply their knowledge to different situations.

There is a distinct correlation between study skills and study behaviours. Social Cognitive Theory is often the theoretical template for explaining the relation connecting students' study behaviour and academic achievement. According to Ashton and Webb (2014), behavioural factors are the individual options the student engages in that influence not only the individual, but also his or her environment. The environmental factors are the situations that students find around themselves influencing them and their behaviour, and personal factors are beliefs, which impact the individual and his/her behaviour (Ashton & Webb). High achieving students are in control of

their behaviours, their environment, and their thoughts. The environment can be modified through behaviour.

According to Bandura (1989), our success is the effect of our ability to control our behaviour and the environment. Self-efficacy is a psychological variable that measures a student's confidence in controlling his or her behaviour and environment. The ability to take control of one's learning, including changing aspects of one's behaviour can be seen as self-regulatory learning (Bandura, 1982). Bandura (1989) suggests that the strength of an individual's convictions in his or her own effectiveness determines whether he or she will even try to cope in difficult situations. He pointed out that the level of self-efficacy may influence a person's performance in the following ways: the amount of effort and persistence a person puts into a task, the actions or tasks people choose, vicarious experience, verbal persuasion, and emotional arousal.

In order for social learning to occur, four elements must be present: imitation, definitions, differential associations and differential reinforcements (Bakhani, 2014). The extent to which one emulates the behaviour of a role model is known as imitation. In order for imitation to happen there must be a perceived personal relationship and a direct observation of the role model's behaviour. Definitions refer to the attitude and values individuals have in regard to the morality of the law in general or an understanding of wrongfulness. This attitude may change depending on the situation or have different strengths at different points in time. Differential association refers to the influence the definitions have on another's conduct. It is this exposure to other definitions and behaviours that has an impact on one's own definitions

and behaviours. The impact varies depending on frequency, duration and intensity of the relationship. Behaviours get adopted through reward; behaviours get maintained through reinforcement while behaviours get extinguished through punishment (Richardson, 2016).

Even though the argument of The Social Cognitive theory is able to explain the relationship between study skills and study behaviour, the theory is confronted with some criticisms. The theory completely ignores individuals' biological state, and rejects individual differences due to genetic, brain, and learning differences (Yahaulalah, 2016). In addition, the social learning theory rejects the classical and operant conditioning processes. The biological preparedness of the individual to learn as well as the role of the brain in processing information from the social environment, are critical to learning theory, but they are ignored by the social learning theory.

The study is also well-grounded in Bandura's theory in that, modeling was one of the strategies utilised in presenting good study practices to the participants. Also, the learning that occurred was basically cognitive. Again, the study skills counselling group did not receive any reinforcement when learning the skills. This is in line with Bandura's theory that learning can occur without reinforcement. The study is, therefore, supported by social cognitive theory.

Behaviour Modification Theory

Behaviour modification involves consistent application of positive consequences to reinforce the occurrence of a desirable behaviour and or to reduce the occurrence of an undesirable behaviour (Wendson, 2014). Analysing behaviour means to determine the relationship between the

environment and that behaviour to better understand why a person behaved the way he or she did. According to Wendson, behaviour modification is used in many areas to assist in changing people's problematic behaviours. These behaviours are considered to be socially unacceptable and inappropriate for one's age and or ability.

Generally, behaviours that generate a positive effect on the environment are more likely to occur in the future (Wernersbach, 2017). Therefore, students who consistently earn credit for doing well in class are more likely to continue this behaviour. Similarly, behaviours that students observe can influence their action. Behaviourism can be witnessed in schools when students who live in abusive and/or unstructured environments misbehave because they have not been exposed to or taught socially acceptable behaviours by their parents. These students' undesirable behaviours are often as a result of negative, unhealthy events that take place in their homes. These behaviours are often disruptive to students' life.

One field that consistently uses behaviour modification is education, especially in the areas of classroom management and teaching students with special needs. Behaviour modification continues to play a major role in education. It is used to create effective teaching methods and to control problematic behaviours such as deviant and conduct behaviours. It is also used to improve inappropriate social behaviours including temper tantrums and disruptive behaviours.

The implication of this theory to the study is that when previous behaviour has been rewarded, students are likely to repeat the behaviour happily and willingly, feeling that they are doing what they 'want' to be doing.

If, on the other hand, students choose behaviour in order to avoid repeating a negative reinforcement and may behave appropriately.

The argument of behaviour modification theory demonstrates that students' behaviours can be controlled or eliminated with appropriate behavioural interventions. That is, through counselling intervention, teachers and counsellors can help modify students' behaviour meaningfully. This shows that the various CoE Ghana can use counselling to help shape and modify students' study behaviour in a positive way which in the long run will enhance students' academic performance.

Thorndike's theory of reinforcement

This theory was propounded by American psychologist, Edward Lee Thorndike in 1913. He carried out experiments to study how non-reflexive behaviour can be modified from experiences. Thorndike (as cited in Dacre & Qualter, 2012) considered the strengthening of connection between stimulus and response as being responsible for the formulation of habits. Such habits are broken when connections or bonds are weakened. In the light of this, Thorndike formulated some basic principles of learning which are: the law of effect, the law of exercise and the law of readiness.

The argument of the law of effect is that learning consists of forming association, bonds or relationship between stimulus and response. Such "association" or "habits" become strengthened or weakened by the nature and frequency of stimulus response pairing. Thorndike (as cited in Egbo, 2015) stressed environmental stimulus as one of the tools for modifying behaviour and increasing task performance.

This theory states that responses which were unpleasant or brought little or no satisfaction would not recur. In effect, this is the rationale behind rewards and punishment. When a student performs well in school he or she is rewarded hence, the satisfaction for learning hard, so as to obtain the reward in future. The principle of effect is based on the emotional reaction of the student. It has a direct relationship to motivation (Egbo, 2015). This explains that learning is strengthened when accompanied by a pleasant or satisfying feeling, and that learning is weakened when associated with an unpleasant feeling. The student will strive to continue doing what provides a pleasant effect to continue learning. Whatever the learning situation, it should contain elements that affect the students positively and give them a feeling of satisfaction (Wunpini, 2015). Therefore, instructors should be cautious about using punishment in the classroom.

This principle of effect, states that the consequence or effect, of a response will determine whether the tendency to respond in the same way in the future will be strengthened or weakened. Responses closely followed by satisfying consequences are more likely to be repeated. Given the above position in Thorndike's law of effect, it can be deduced that students' study skills and behaviour habits can be strengthened or weakened by the nature and frequency of stimulus response received from the learner's environment, which include all those around him or her, such as counsellors, parents, peers, teacher's relation, facilities, motivates the child positively or negatively in his/her study. These can stimulate the learner to respond positively or negatively to his or her study and task performance.

Similarly, the principle of exercise holds that repeating a habit increases its strength since "practice makes perfect". The law has two parts which are use and disuse. The use of connection increases its strength, while disuse of connection weakens its strength. Thorndike (as cited in Wunpini, 2015) found the law inconsistent with the law of effect, and interpreted "use" as correct use that was rewarded. The principle considers motivation and reinforcement as an agent of habit formation and one of the factors that can influence a learner's study skills and behaviour (Wambu & Fisher, 2015). The researcher supports this view and suggests that behaviour that is reinforced tend to become habitual and reinforcement increases the probability that any given response will be repeated.

In all, the principle of exercise posits that those things most often repeated are best remembered. It is the basis of drill and practice. It has been proven that students learn best and retain information longer when they have meaningful practice and repetition. It is clear that practice leads to improvement only when it is followed by positive feedback.

In relation to the principle of readiness, it was proposed that when a response is ready to be linked to a particular stimulus discomfort would be the result (Bashir & Mattoo, 2012). Readiness implies a degree of single-mindedness and eagerness. Individuals learn best when they are physically, mentally, and emotionally ready to learn, and they do not learn well if they see no reason for learning. Getting students ready to learn, creating interest by showing the value of the subject matter, and providing continuous mental or physical challenge, is usually the instructor's responsibility. If students have a strong purpose, a clear objective, and a definite reason for learning something,

they make more progress than if they lack motivation. Notwithstanding this assertion, one may argue that student's study skills and behaviour can be strengthened or weakened by the nature and frequency of stimulus response he or she receives from his or her environment which can stimulate the student to respond positively or negatively to his or her study and task performance.

Deductions from the various theories reviewed suggest that practice, without perfection will be ineffective, only rewarded practice will strengthen a bond. That is, learning is better acquired and mastered as soon as the learner attends to it. On the other hand, it is easier to remember recent events and hence, put them into practice. In application to behaviour change, immediate and regular study periods and doing school requirements tend to result in a better performance than delayed and erratic study periods do (Kagu, 2001). Diverse study techniques, even for the improvement of memory stress the importance of immediacy in remembering and learning (Kerka, 2017).

The arguments suggest that transfer of learning depends upon the presence of identical elements in the original and new learning situations as transfer is always specific, never general. The more frequent a modifiable connection between a situation and response is used, the stronger the connection. When a modifiable connection between a situation and response is not being used over a period of time, the strength of that connection is weakened (Egbo, 2015). A behaviour that is stimulated over regular periods will tend to be repeated leading to habit formation.(linkeage to the study) .

The implication to the current study is that, students are likely to repeat the behaviour happily and willingly, if they are re-inforced. If, on the other hand, students choose behaviour in order to avoid repeating a negative

reinforcement and may behave appropriately. Therefore, students in the CoE must be reinforced by teachers and counsellors to understand themselves in order to adopt appropriate study skills and reinforce themselves so as to improve upon their study behaviour.

Empirical Review

To understand the current concepts under study much better, the study reviewed the current study empirically. This helped in gaining better knowledge on the issues by means of direct and indirect observation or experience of previous researchers or studies. The records of other researchers' observation or experience were critiqued and analysed quantitatively and qualitatively to gain more information about the concept under study. The review of empirical studies concentrated on the effects of study skills and self-reinforcement counselling on study behaviour, gender and study behaviour, and age and study behaviour.

Study Skills and Self-reinforcement Counselling on Study Behaviour

Akafa (2011) carrie0d out study on the "effectiveness of study skills counselling in reducing study behaviour problems of secondary school students in Kaduna State". She had four objectives and four null hypotheses. The pre-test post-test control design was used for the study. A sample of 100 students were selected which was divided into experimental and control groups. Self-assessment study inventory was used. Data collected were analysed by descriptive and inferential statistics. The main finding was that the study skills counselling was effective in reducing study behaviour problems in the areas. One of the recommendations was that study skills counselling

should be organized for students of secondary schools on regular basis by counsellors just like career days are often organised.

Awabil's (2013) study investigated the effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public universities. Four research questions and four null hypotheses were formulated. The quasi-experimental, pre-test, post-test control group design guided the study. The population of the study comprised all first year undergraduate students in Ghanaian public universities. The sample was made up of 60 participants who were assigned to three groups: study skills counselling, self-reward skills counselling and control group. Each group had 20 participants (10 males and 10 females). Simple random sampling was used in selecting students with study behaviour problems for the research. A study behaviour inventory was used by Awabil (2013) to measure the study behaviour of students. The four hypotheses were tested at 0.05 level of significance and the data were analysed using one-way and two-way analyses of covariance (ANCOVA).

The findings of Awabil's study showed that two hypotheses related to the effect of study and self-reward skills counselling on study skills behaviour and its dimensions were rejected. A post hoc test revealed that study and self-reward skills counselling had significant effects on study behaviour when compared to the control group. Based on the findings, it was recommended that study and self-reward skills counselling be utilised in modifying poor study behaviour at the university level.

Kagu (2004) conducted an investigation on the effects of group counselling on the learning and remembering strategies of diploma students in

University of Maiduguri which he used experimental and control group. A sample of 240 was selected. The experimental group was exposed to study skills training on learning and remembering strategies for four weeks while the control group was given placebo treatment for the same time. Mean, standard deviation and two way analyses variance (ANOVA) were used to analyse the data. The result revealed that the experimental group acquired significant learning and remembering skills on the other hand, the control group did not do the same.

Simon's (2015) study investigated the effect of study skills training on poor study habits among senior secondary school students in Faggge local government Area of Kano State, Nigeria. Five research questions and five null hypotheses were formulated. The quasi experimental, pre-test, post-test control design guided the study. The population of the study comprised all the second year students of Fagge local government area of Kano state. The sample was made up of 100 respondents who were assigned to two groups: study skills training (experimental group) and the control group. Each had 50 participants (25 males and 25 females). Purposive sampling was used in selecting students with poor study habits for the research. The instrument used to measure the poor study habits of students was study habits inventory developed by Bakare (as cited in Simon, 2015). Data were analysed using percentages, mean, standard deviation and t-test. The results that emerged from Simon's (2015) study showed that there is significant effect between secondary school students exposed to study skills training and the control group (t=17.308, p=0.000).

Armstrong (2014) also explored the role of skills and study behaviours in students of colour who traditionally have low admissions rates to the University of California. According to Armstrong, one of the key factors that prevent low-income students of colour from being admitted to post-secondary schools is academic preparedness. One way to look at the educational preparation of students of colour was to focus on study skills and study behaviours. Study skills, as it relates to Armstrong's study, focused on meta-cognition, self-efficacy, time management, academic preparation, and group study.

The findings that emerged from Armstrong's (2014) study show that there are similarities and differences in meta-cognition and self-efficacy among students of colour. Also, there are similarities and differences in time management, academic preparation, and social nature among students of colour. Again, the results of this study indicated that all groups have opportunities to further develop the necessary skills and study behaviours. In fact, these skills and study behaviours can be taught. Armstrong's study adopted descriptive design. Mertes (2015) also investigated the effects of a psycho-educational group that teaches study strategies and supports perceived self-efficacy among CoE students. The study followed a within-group, pre-experimental design, with a pre-test/post-test evaluation measuring quantitative data of perceived self-efficacy, as well as a demographic questionnaire. An instrument with high reliability was used to measure self-efficacy on two CoE students in an open group promoting inclusion of a diverse population. It was estimated that self-efficacy would increase after a total of six one-hour group counselling session were attended.

Results from Mertes study showed improvement, however, were statistically insignificant due largely to a low sample size. While similar groups have been established on other campuses and proven to be effective, several limitations to the process threaten its own efficacy. First, the inexperience of a group leader can have an effect on the individual benefits that students perceive. The ability to build trust within a short time period is essential for students to believe that the leader and members can either have something to teach them or that they are interested in having them participate. An inexperienced leader may not know the skills to draw people out with enough time for them to do the real work within the group time period. Second, maturation, the process of students improving due to the natural course of their academic life, may skew the results of a self-perception scale.

Mertes (2015) further found that the flexibility of leaving this group open for new members to join is an attempt to measure student perceptions at any grade-level or developmental stage to account for the possibility for maturation, such as the first-year experience or pre-graduation preparation. Third, the decision to leave the group open has its benefits, but it may also impede full disclosure of participants since there may be new people coming and going. Students will be asked to agree to eight sessions in order to maintain a core group of people so that trust may be established as much as possible and provide accurate data. Students with effective study strategy end up having high level of self-efficacy.

Numan and Hasan (2017) also conducted a study to investigate the effects of study behaviour on test anxiety and academic achievement of undergraduate students. A purposive sample comprised of 180 undergraduate

students (84 boys and 96 girls) was drawn from a public university. Multivariate analysis of variance indicated that study behaviour have a significant effect on test anxiety and academic achievement. The findings revealed that students having effective study behaviour experience low level of test anxiety and performed better academically than students who had ineffective study behaviour.

In addition, a quasi-experimental study conducted by Kagu (2004) and Ohanaka and Ofuani (2010) using study skills counselling has shown that students who received counselling obtained higher mean score on study behaviour than their counterparts in the control group. In other words, the experimental group recorded greater improvement in study behaviour than the control group.

Agi (2017) also investigated effects of group counselling and self-reinforcement on students study behaviour in selected universities in Nigeria. Quasi-experimental, pre-test, post-test control, group design guided the study. The target population of the study was all second year undergraduate students in Nigerian public universities. Two-null hypotheses guided the study. A sample of 60 participants was selected through the use of simple random sampling techniques for the study. Study behaviour inventory was used as instrument for the study and hypotheses were tested at 0.05 level of significance. Data were analysed using one-way and two way ANCOVA.

The results from Agi's study indicated that the counselling strategies were effective in improving student's study behaviour. Based on the findings, it Agi recommended that group counselling and self-reinforcement be utilised in modifying poor study behaviour at the university level. Again, the argument

of this study was expanded to include study skills counselling. Also, the current study focused on CoE students who are also tertiary students.

Using longitudinal (pre-post experimental) research design, Wernersbach (2017) conducted a study on effects of counselling on study behaviour of undergraduate students. At the beginning of the experiment in class, there was no significant difference between the study behaviour and attitudes of the controlled and experimental groups. Thus, at the time of beginning of the experiment, both groups had almost same level of study behaviour and attitudes. After two counselling interventions of the experimental group, the difference between the study behaviour and attitudes of the experimental group had a positive change and there was difference at 0.10 level of significance, whereas comparative results between experimental and control group shows a significance difference at 0.05 level of significance.

Wernersbach's study revealed that, the mean score of study behaviour and attitude in post-testing of controlled group was 30.77, and of experimental group was 33.28. The t-test value (2.36) was obtained which is significant at 0.05 level of significance. There was significant positive increase in the study behaviour and attitudes of the experimental group after the counselling interventions. This result established the effectiveness of counselling interventions in developing study behaviour and attitudes which certainly contributes in academic achievement.

Study Skills and Self-reinforcement Counselling and Dimensions of Study Behaviour

Awabil's (2013) study investigated the effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public

universities. It was to determine the effects of study and self-reward skills counselling on study behaviour and its five dimensions namely time management, concentration, consultation, note taking, and reading and library use. Post hoc tests showed that study skills counselling significantly improved participants' behaviours in all the five dimensions of study behaviour while self-reward skills counselling had significant effects on only three dimensions, namely time management, concentration and note taking when compared to the control group. It was also recommended that study skills counselling be considered as an effective strategy for improving the five dimensions of study behaviour. It is expected that when these measures are introduced, the academic achievement of students would increase through improvement in study behaviour.

The results that emerged from Simon's (2015) study showed that there was significant effect of the study skills training between the treatment and control group on home work and assignment ($t=4.577$, $p=0.000$); there is significant effect of the study skills training between the treatment and control group on time allocation, reading and note taking, and study period procedures ($t=13.999$, $p=0.000$); and there is significant effect of the study skills training between the treatment and control group on concentration, written works, examinations and teacher consultation ($t=18.374$, $p=0.000$). The results showed that study skills training are effective in reducing poor study behaviour among secondary school students. Thus, significant different existed between respondent who were given treatment and those in the control group with respect concentration, written work, examinations, teacher consultation, time allocation, reading and note taking, period procedures and

homework and assignment. Based on these findings, Simon (2015) recommended that school counsellors should organise study skills training for their students often to help enhance their study habits. Even though the findings of Simon's study were relevant, the study failed to consider other counselling interventions such as self-reinforcement counselling.

Gender and Study Behaviour

Awabil's (2013) study investigated the effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public universities. The research was intended to ascertain the difference in the study behaviour of participants in the experimental groups on the basis of gender and age. Post hoc tests showed that the hypotheses related to the influence of gender and age on study behaviour was retained.

The findings of Simon's (2015) study showed that there is significant difference between poor study habits of male and female respondent in the treatment group ($t=6.126$, $p=0.000$). Similarly, Andreou, Vlachos and Andreou (2006) cited in Awabil (2013) did a survey on study behaviour and its relationship with gender among Greek university students. The results showed that gender significantly influenced the study approaches of students.

Numan and Hasan (2017) also conducted a study to investigate the effects of study behaviour on test anxiety and academic achievement of undergraduate students. A purposive sample comprised of 180 undergraduate students (84 boys and 96 girls) was drawn from a public university. The Numan, and Hasan found significant gender differences regarding concentration. We can infer from the findings that girls are better at concentrating on their work and they use such techniques that help them to

maintain their focus and avoid distractions while studying. This result is also consistent with the previous studies that females scored higher than males on the subscale of concentration. The results indicated that female students have overall better study behaviour as compared to male students. They have the tendency to attend classes regularly, participate in the class and spent more time studying (Emievil, 2013). They are more cautious about performing well academically.

Ohanaka and Ofuani (2010) examined gender differences in enhancing senior secondary school students' study habits through reading and group counselling. They found that there was no significant difference between male and female students in their study behaviour at post-test. Ohanaka and Ofuani (2010) also found that in the experimental groups, males experienced greater improvement in study behaviour than their female counterparts. In contrast, Kagu (2004) discovered that females improved more in study behaviour than their male counterparts at post-test. Kagu (2004); Ohanaka and Ofuani (2010) further found that there was no significant difference between male and female students in their study behaviour at post-test. Therefore, sex was no barrier to the reaction of students to the treatment. However, an earlier study carried out by Dweyer and Multer (as cited in Ohanaka & Ofuani, 2010) revealed that a difference exists between male and female participants in their study behaviour after treatment.

Age and Study Behaviour

Research has also revealed that age may or may not influences study behaviour. For instance, Andreou, Vlachos and Andreou (2006) cited in Awabil (2013) did a survey on study behaviour and its relationship with

variables such as age and gender among Greek university students. The results showed that age significantly influenced the study approaches of students.

In Awabil's (2013) study on the effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public universities, the result indicated that the age group of the respondents did not significantly influence their study behaviour. Similarly, Ohanaka and Ofuani (2010) found that age difference has no effect on students' study habits. Therefore, gender and age were not found to be barriers to the reaction of students to the treatment.

Conceptual Framework

The conceptual framework was created based on the concepts and assumptions of the theories reviewed. The framework deals with the specification of research variables and their inter-relationships. Therefore based on the literature reviewed, the study proposes relationship among study skills counselling, self-reinforcement counselling and study behaviour.

The study also proposes that when students are given well and meaningful interventions using study skills counselling and self-reinforcement counselling, all things being equal, their study behaviour will improve. That is, when students have access to good study skills counselling and self-reinforcement counselling, it will positively affect their study behaviour.

Also, meaningful study skills counselling and self-reinforcement counselling will result in enhancing study skills dimensions such as time management, concentration, consultation, note taking and reading and library use; increase students' study behaviour; and in general academic achievement.

The narration above is represented diagrammatically in Figure 1

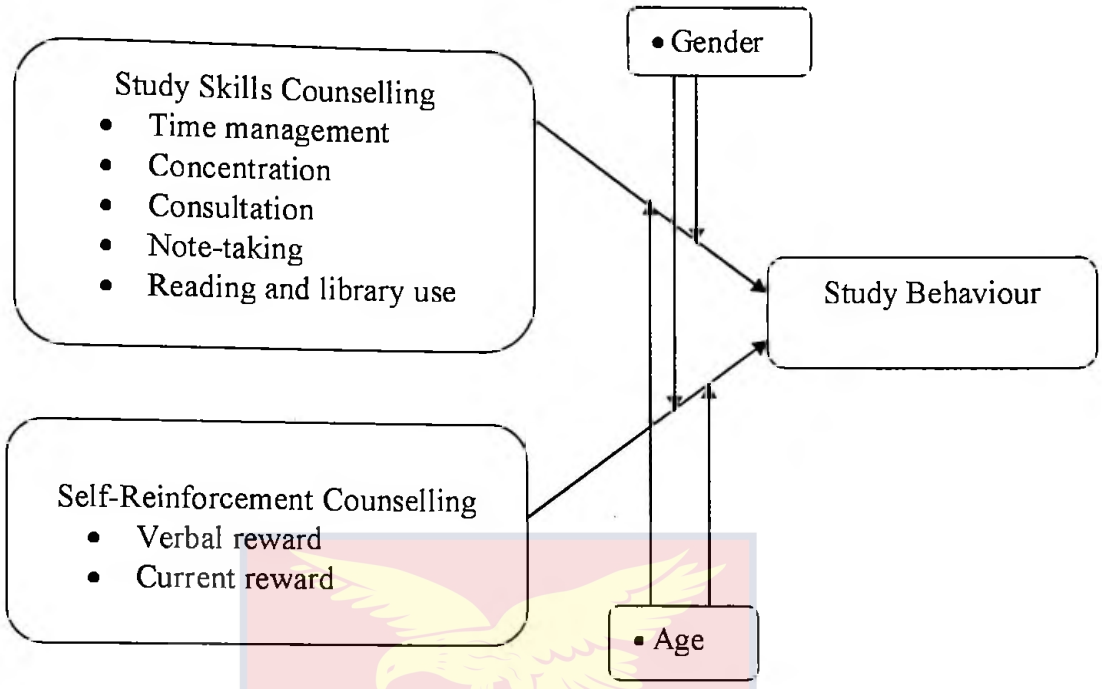

Figure 1: Effects of Study Skills and Self-Reinforcement Counselling on Study Behaviour

Source: Author's construct, 2018

As shown in Figure 1 the study also proposes that, the improvement in students' study behaviour after going through meaningful counselling interventions in study skills and self-reinforcement can be thwarted by moderating variables such as students' gender and age. That is the study intends to find out whether the counselling intervention will have the same effect on males and females or not. The study also wants to find out the behaviour of the age groups when the therapy is given. That is, will the effectiveness of the therapy be the same on the different age groups, more effective on one age group than the other.

The researcher is of the view that counselling interventions at the various CoE in Ghana will help enhance students' study behaviour in positive

terms when students background characteristic variables is considered. That is, with effective study skills counselling, and self-reinforcement counselling, students with poor study behaviour can be guided to develop good study behaviours which in the long run will help enhance their academic performance. This shows that enhancement of students' study behaviour can be achieved through effective study skills counselling and self-reinforcement counselling.

Chapter Summary

The review focused mainly on conceptual, theoretical and empirical review of the study in order to understand the dynamics regarding the effects of study skills and self-reinforcement counselling on study behaviour of students in CoE in Ghana, focusing on Central and Western Regions of Ghana. To begin with, the review provided definitions for all the possible concepts and constructs. For example, studying was considered as observable behaviour, and behaviour can be understood as a predisposition that has been developed through a long and complex process. Study behaviour refers to a student's ways of studying whether systematic, efficient or inefficient implying that inefficient study behaviour leads to academic failure. It is a well-planned and deliberate pattern of study which has attained a form of consistency on the part of students towards understanding academic subjects and passing the examination.

Study skills are students' knowledge of appropriate study strategies and methods and the ability to manage time and other resources to meet the demands of academic tasks. It is the attitudes, behaviour and styles the learners adopt in the process of learning and seen as academic enablers. Study

skills are, therefore, strategies that facilitate the processing of information and function as critical tools for learning. Self-reinforcement as a self-modification approach has a number of elements which when well utilized can enhance study behaviour. Though symbolic and evaluative reinforcers have received less study, people can produce self-approving and self-critical reactions most of the time.

Counselling is a process that is designed to help an individual solve some of his/her problems or assist the individual in planning the future. Counselling activities contribute in helping children develop their awareness include thinking journals, graphic organizers, peer interviews, and group discussion. Study skills counselling involves providing systematic coordinated instructions and teaching on how to get greater access to learning materials and developing better study skills. By mastering these skills, students are equipped with the tools to learn how to learn.

Theories such as Skinner's Operant Behavioural Theory, Social Cognitive Theory, Behaviour Modification Theory, and Thorndike's Theory of reinforcement were also reviewed. The theoretical review suggests that rewarded practice strengthens a bond. That is, learning is better acquired and mastered as soon as the learner attends to it. On the other hand, it is easier to remember recent events and hence, put them into practice. In application to behaviour change, immediate and regular study periods and doing school requirements tend to result in a better performance than delayed and erratic study periods do. Also, with appropriate counselling interventions such as study skills and self-reinforcement counselling, policy makers and

implementers can help enhance the study behaviour of students which in the long run may help boost their academic success.

Most of the empirical studies reviewed adopted quantitative approach. This study also adopted quantitative approach which makes use of numerical data. Also, the quasi-experimental design was employed by most of the studies reviewed. However, most of the studies reviewed did not take into consideration the controlling role of students' gender and age, and how they can boost or thwart the influence of counselling intervention on students study behaviour. Lastly, most of the empirical studies reviewed concentrated on second cycle level of education, only few focused on tertiary institutions. The few that focused on tertiary institutions delimited their argument to universities. None of the reviewed work focused on CoE students.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter describes the research methods that were used to obtain the relevant data for the study. The chapter describes the Epistemological Orientation of the study, the research approach, design, population, and sample and sampling procedure. The description of the research instrument, the validity and reliability of the instrument and how it was administered and scored were also discussed. Additionally, procedure for data collection; procedures for intervention and procedure for data analysis were also explained. Lastly, the ethical issues considered in the study were discussed.

Epistemological Orientation of the Study

For well over 100 years there has been a continuous debate as to whether the methodology of the natural sciences can appropriately be employed in the study of education and human behaviour. Clearly, this question depends partly on what view is taken of that methodology. Many arguments opposing the methodological unity of the natural and social sciences rest upon the view of the former which has been increasingly and successfully challenged in the last ten years or so (Ary, Jacobs, Sorensen & Razavich, 2010). The main feature of that challenging view is Positivism. The argument between positivistic and naturalistic inquiry with regard to the way we think and investigate issues or problems in the society is often correlated to research methodology. Basically, both deal with our philosophy with regard to

the way we think about human phenomenon and research (Yates, 2014). They can be integrated within methodology, but philosophically they are very different. They are the foundation on which we design research.

The philosophical argument of the naturalist is that man is rational and his or her subjective thinking and ways of seeing reality must be the focus of the researcher. The main aim of this paradigm is to understand meaning from the perspectives of the participants or individuals. Positivism, on the other hand, expressed a more general world view as a philosophy which lauded the achievements of science (Creswell, 2014). For the positivist, it is the aim of science to provide us with predictive or explanatory knowledge concerning societal problems. Scientific theories are to be seen, primarily, as sets of highly general, law-like statements, preferably taking the form of mathematically expressed functional relationships between measurable variables. From these laws, together with statements of observable 'initial conditions', can be deduced statements in the observation-language describing events whose occurrence or non-occurrence are both tests of the truth or falsity of the theory, and also what it is that the theory enables us to predict and explain (Creswell, 2014).

The study's epistemological and ontological orientations with regard to the pursuance of the virtues of reality and truth were based on the ideas of positivism paradigm. This shows that the approach and perceptions to this study have been influenced largely by an examination of the literature on deductive approach to knowledge building, an epistemology which falls within the broad logic of testing hypothesis and existing theory. In the deductive approach, researchers formulate hypothesis to be tested in order to confirm or

disconfirm assumptions of a theory (Cohen, Manion, & Morrison, 2011). Positivism paradigm was adopted because of the contextual nature of counselling and study behaviour, and also the multiple ways in which reality is constructed by students in schools.

The adoption of Positivism Paradigm created room for the researcher to use deductive approach. Therefore, the position of the study on truth and reality as explained above through engagement with the literature influenced the adoption of the quantitative approach for this study. The next sub-section explains briefly the approach adopted for the study.

Approach to the Study

The researcher adopted the quantitative approach for this work. This approach was used in order to measure the data collected from the field numerically using unilinear scale. According to Carson, Gilmore, Perry and Gronhaug (2015), quantitative approach normally addresses the question "how many?" and/or "how often?" where the information can easily be processed and converted into numbers. A quantitative approach is a process directed towards the development of testable hypothesis and theories which can be generalised across settings (Ary et al., 2010; Creswell, 2014).

The quantitative approach is perceived to be more objective (Cohen et al., 2011). Since the researcher is more interested in more perceived objective approach, it was appropriate to adopt the quantitative approach. This approach created room for the researcher to use quantitative statistical tools to analyse the data (which made it easier for the researcher to generalise the findings). Also, this approach created room for the researcher to base the final results on

quantities rather than interpretations, which may simplify potential future development and comparisons with the work (Babbie, 2013).

According to Creswell (2014), the main goal of quantitative research is to provide specific facts for decision makers to make accurate predictions about relationships between factors and behaviours, gain meaningful insights into those relationships, and verify or validate the existing relationships. However, this approach tends to be inflexible, artificial and ineffective in gauging the significance that people attach to actions, and is not helpful in generating theories (Best & Kahn, 2012; Creswell, 2014). The main reason that necessitated the adoption of the quantitative approach was the quasi-experimental Interventions and the use of the questionnaire which allowed the researcher to collect large amount of quantitative data from a sizeable population.

Research Design

The design for this study was quasi- experimental design involving the pre-test-post-test control groups. With this design, both control group and experimental group were compared. For the purpose of comparing groups and/or measuring changes resulting from experimental treatments, pre-test post-test design is primarily widely used in behavioural research (Best & Kahn, 2012). In adopting this design, the researcher took the participants through an eight-week treatment counselling programme (i.e., study skills and self-reinforcement counselling). Participants were assigned to either experimental or control group based on the intact group they belong. The experimental groups received counselling or treatment for a period of eight weeks, while the control group received no treatment for same period but were

also taken through the intervention after the study. The sessions were characterised by discussions, questions and answers, brainstorming, verbal interaction and demonstrations. After the eight weeks of counselling or treatments, the experimental and control groups were post-tested. This has been illustrated in Table 2.

Table 2: Illustration of Quasi-Experiment Research

Experimental	G1	01	X1	02
Group	G2	03	X2	04
Control Group	G3	05	C	06

Source: Adapted from Awabil, (2013)

Where G1 = Treatment group 1 (study skills counselling), G2 = Treatment group 2 (self-reinforcement counselling), G3 = Control group, 01 = Pre-test (study skills counselling), 02 = Post-test (study skills counselling), 03 = Pre-test (self-reinforcement counselling), 04 = Post-test (self-reinforcement counselling), 05 = Pre-test (control group), X1= Treatment 1, X2 Treatment 2,C = Control (no-treatment), and 06 = Post-test (control group)

Pre-test refers to collection of data before commencement of the experiment, while post-test denotes collection of data after the experiment. This design was selected based on the fact that it has the advantage of testing the results obtained from the post-test, in order to analyse the effectiveness or otherwise of the treatment when compared with the control group.

In a quasi-experimental study, the researcher looked at the effect(s) of at least one independent variable on one or more dependent variables. The independent variable in such a study is referred to as the experimental or treatment variable. The dependent variable also known as the criterion or outcome variable refers to the result or outcome of the study. In the case of

this study, the two treatments, study skills self-management counselling, were treated as independent variables while study behaviour was used as dependent variable.

Some of the drawbacks of quasi-experimental designs are that it is time consuming, difficult to administer and expensive, particularly if the researcher is interested in measuring the long-term effects (Best & Kahn, 2012). Also, it may be impossible to control for the effects of the extraneous variables, particularly in a field environment. Mindful of the above challenges, the researcher planned, organised, and adapted research instrument objectively, and was independent as possible. The researcher further ensured that threat to validity was reduced. The researcher ensured that the counselling sessions actually caused the observed effects of the dependent variable since control of extraneous variables is a necessary condition for establishing internal validity. Also, the population and sample parameters were determined appropriately to ensure that the cause-and-effect relationships found in the independent and dependent variables are generalised.

Population

The target population for the study was first year students in all mixed CoE students in Central and Western regions of Ghana. There were four mixed CoEs in Central and Western regions, namely, Fosu College of Education, Komenda College of Education, Enchi College of Education, and Wiawso College of Education. The total student population of first year students in these four Colleges stands at 4,413 (Education Management Information System [EMIS] IoE, 2015). Thus, the sample of the study was

drawn from all first year students in the four CoEs in Central and Western regions.

The study targeted first because, empirically, first years are reported to face enormous challenges, with respect to academic work. It has, therefore, been suggested by experts that any effort at improving the study behaviour of students at the tertiary level should target first year students (Agi, 2017; Awabil, 2013). The Professional Board Report of Institute of Education, UCC (2016) indicated that some first year students have weak entry characteristics, and this contributes to students being referred, made external students or withdrawn from the colleges. This is in collaboration with the comments of Dontoh (as cited in Nkrumah, 2014) who posits that most students in the teacher training colleges, now colleges of education, achieved relatively low results at the end of their secondary school education, leaving them under qualified for higher education. According to Nkrumah (2014), CoE seem to take the next tranche down from the public universities and therefore, have numerous academic challenges. It was based on these reasons that the first year students were considered for the study. Table 2 shows the size of the target population.

Sampling Procedures

A sample is a sub-set of a population. It has properties which represent the whole. Sampling on the other hand, involves the process of selecting a portion of the population to represent the entire population (Zikmund, 2015), and on this basis infer to something about the larger group (population).

Since the study used two treatment groups and one control group, there was the need to use three colleges. Therefore, Foso, Komenda and Wiawso

CoE were selected using the lottery method of simple random sampling technique from the four mixed CoE Central and Western regions. Three colleges were chosen for the study, where two were experimental groups and one control group. Three colleges were used because of the quasi-experimental nature of the study. In quasi-experiments, groups are formed based on existing natural groups. So in this case, each college formed a group, making three groups in all. This also helped to reduce interaction among participants since the various colleges formed different groups, and for that matter participants in one group had no knowledge of participants in other groups.

An initial sample of 441(10%) was selected according to programme of study in the selected colleges. According to Amedahe and Gyimah (2016), a sample size of 5% - 20% is adequate for generalisations. This informed the selection of 441 students from 4,413 for the study. Therefore, 441 students across the three selected colleges were surveyed. Out of the 441 students, 135 were found to be eligible (students whose scores fell within the range of 101-200 on the Study Behaviour Inventory). Lottery method of simple random sampling was used to select 60 students out of the eligible students for the study after using stratified sampling procedure to put them into males and females. The sample size of 60 was equally distributed among the three colleges according to their programmes. The programmes of study were purposely selected because during my interactions with the college guidance coordinators of the various colleges, it appears students reading science, mathematics, and general programmes usually experience more withdrawals due to poor grades. There was, therefore, the need to use students from the

aforementioned programmes. Table 3 shows the population and sample distribution of the study.

Table 3: Population and Sample Distribution of the Study

Name of College	Programme of study	Population Size	Initial Sample Size	Eligible Students		Final Sample Size
				M	F	
Foso	Science	1,033	137	22	20	20
Komenda	Mathematics	1,201	160	18	17	20
Wiawso	General	1,079	144	17	21	20
Enchi	General	1,100	-	-	-	-
Total		4,413	441	57	58	60

Source: (Education Management Information System [EMIS], 2018). M – Male, F – Female

The determination of the size of the group was informed by the assertions of Gravetter and Forzano (2015) and Creswell (2014) who posited that in experimental research, it is desirable to have a minimum of 15 cases in each group to be compared. Also, some researchers have indicated that the number for group counselling can range from 15 to 20 (Okobiah as cited in Awabil 2013, Adisa, 2007; Agi, 2017; Kagu, 2004; Light & Alexakos, 2017; Ohanaka & Ofuani, 2010; Parcover et al., 2016).

Following the guidance of the aforementioned authors, a group of 20 students each from the three Colleges was, therefore, considered manageable for the study skills and self-reinforcement counselling interventions. Hence, this study used 60 students. This comprised 30 males and 30 females. Using the stratified disproportionate sampling technique, 10 males and 10 females were selected each from the control and the two experimental groups.

Data Collection Instrument

The instrument used in the pretest-postest was a structured questionnaire (See Appendix A). It was an inventory on study behaviour, known as Study Behaviour Inventory (SBI). It was adapted from the Study Habit Survey (SHS) form B developed by Essuman (2006). The inventory comprised two main sections (A & B). Section A was used to collect data on the background characteristics of the respondents. The data collected include age, gender, college, and programme of study.

Section B was used to collect data on study behaviour of respondents. In all, 40 items were used to collect data in section B. Responses on each of the items were rate on a scale of 1 to 5, such that one (1) represents the strongest disagreement to the items while five (5) represents the strongest agreement to the items. Five dimensions of study behaviour were used. For each of the dimensions, eight (8) close-ended items were used to measure specific strategies of study skills that impact on students' study behaviour. The scales were:

Scale 1: Time management - It is to find out how much time is devoted for study which impact on their study behaviour.

Scale 2: Concentration – It finds out whether study environments, the mood of students and duration students devote for studies have impact on their study behaviour.

Scale 3: Consultation – It deals with issues such as finding out from teachers, friends or books when students do not understand a lesson which impact on their study behaviour.

Scale 4: Note Taking- It is to find out whether students copy notes or not during lessons and how they do it which impact on their study.

Scale 5: Reading and Library Use- It discusses whether students have difficulty getting the main idea from their reading or not and how they use the library (Awabil, 2013)

Since the responses to the various items in the questionnaire with regard to the SBI were rated from 1 to 5, it was easier to score the 40 close-ended items in order to provide range of responses. The interpretation of the responses was based on each scale and entire instrument. For the entire instrument, the interpretation is as follows: 40-60 (very good study behaviour), 61-100 (good study behaviour), 101-140 (fair or satisfactory study behaviour), 141-180 (poor study behaviour), and 181-200 (very poor study behaviour).

The higher the total scores the weaker the study behaviour and the smaller the total scores the stronger the study behaviour. The highest possible score was 200 and the smallest was 40. The cut-off point used was 101 and above. It was the point used for determining or selected respondents for the experiment. The reason for selecting individuals in that category was because they were regarded as students requiring counselling intervention on study behaviour. Thus, individuals with satisfactory or fair, poor or very poor study behaviour were selected for the study. This cut-off point is consistent with that of Awabil (2013).

Validity and Reliability of the Instrument

Validity, as a concept, can be defined as the degree to which an instrument measures what it is supposed to measure. According to Creswell (2014) validity is the degree to which research findings accurately reflect the

social phenomena under investigation. In the context of this study, validity refers to how accurately the questionnaire was able to collect the responses from the respondents as intended by the researcher in order to tackle the objectives. Internal validity was assessed to test the ability of the instrument to measure what it was projected to measure and to help detect any errors that could obscure the meaning of the instrument and prevent them from eliciting specious responses.

With regard to content validity, the study ensured that the items on the instrument covered the domain that the instrument purports to measure. This was determined by expert judgment of the two supervisors and other experts in the area of measurement and evaluation. The researcher took note of their comments to modify and delete materials that were considered inaccurate or items that infringe on the confidentiality of the respondents.

Reliability is defined as the extent of consistency to which research studies are able to produce the same results when repeated by different researchers (Silverman, 2015). The fundamental issue of reliability is therefore replicability of findings (Patten, & Newhart, 2017). To ensure the reliability of the research instrument, it was pre-tested among first year CoE students of the Accra CoE. The questionnaire was administered to a total of 30 students, 15 males and 15 females, using the lottery method of simple random sampling technique. The questionnaire was delivered to the respondents with the help of a Guidance Coordinator of the College, after selecting them. All the 30 copies of the questionnaire administered were retrieved as expected. With the help of the Predictive Analytic Software (PASW) Version 21.0, Cronbach's alpha reliability co-efficient was used to measure the internal consistency of the

questionnaire. Cronbach's alpha reliability co-efficient is one of the widely used measure of consistency with regard to responses of an instrument (Pallant, 2010). Researchers' use Cronbach's alpha when measures have items that are not scored simply as right or wrong, such as attitude scales or essay tests (Best & Kahn, 2012).

The Cronbach's alpha reliability co-efficient was used because the responses to the items were rated on a scale. According to Pallant, the most appropriate measurement tool to use in finding out the reliability co-efficient of a structured questionnaire is the Cronbach's alpha reliability co-efficient tool. Therefore, it was appropriate to use this statistical tool in measuring the consistency of the questionnaire.

The Cronbach's alpha reliability co-efficient obtained from the questionnaire was 0.84. Research has shown that scales with Cronbach's alpha co-efficient of 0.70 or more are considered reliable (Cohen et al., 2014; Pallant, 2010). The final reliability of the instrument was estimated using Cronbach's alpha reliability based on a sample of 60 participants. Table 4 presents the details on the reliability estimates of the final sample.

Table 4: Reliability Co-efficient (Cronbach's Alpha) of the Instrument

Sub-scale	No. of Items	Co-efficient
Time Management	8	0.81
Concentration	8	0.86
Consultation	8	0.89
Note Taking	8	0.92
Reading and Library Use	8	0.82
Overall	40	0.96

Source: Field work (2018)

Recruitment and Training of Field Assistants

Three research assistants trained were by the researcher to help in collecting the initial survey data from the students. These research assistants comprised Second-year, Master of Philosophy (Guidance and Counselling) students of the University of Cape Coast. They were chosen because they had completed their course work and had started working on their theses; as such they had a fair idea of the processes in such data collection. The research assistants were chosen also because the items in the SBI were quite sensitive and therefore required confidentiality for which these assistants had been trained during their course work. The research assistants were given training and orientation regarding the study, which made it easier for them to administer the questionnaire. The training programme included explaining the objectives of the study to the field assistants, how to identify respondents and data management.

Specifically, the research activities for the research assistants involved informing students to participate in the study, and for that matter filling the SBI. They were also to interpret to respondents who may not be able to understand the items in the SBI. As part of the training for the three research assistants, I briefed them on the essence of the study and took them through each item on the questionnaire. We followed the manual on the SHS which was adapted to discuss each item. In addition, the research assistance were engaged in the data collection for the pilot testing in order familiarise themselves with the entire process. These were done to ensure that the research assistants understood the items themselves and ascertained their readiness for the data collection.

Data Collection Procedures

The data was collected personally and with the help of the three trained research assistants. An ethical clearance approval letter from the Institutional Review Board (IRB) of University of Cape Coast (UCC) was obtained (see Appendix B). With the approval letter from IRB, UCC, and introduction letter from the Department of guidance and Counselling, researcher sought permission from Principals of the selected Colleges to be introduced to the Guidance and Counselling co-ordinators. On arrival, the purpose of the study was explained to the Principals of the Colleges and Guidance and Counselling Co-ordinators. In collaboration with the Principals and Guidance and Counselling Co-ordinator, a date was fixed to administer the pre-test to the first year students. On the day of administration of the inventory, the researcher first established rapport with the participants in order to win their confidence to accept and complete the inventory.

Ethical Issues

The issue of ethics is an important consideration in research that involves human subjects. It refers to appropriate behaviour of a researcher relative to the norms of society (Best & Kahn, 2012). The researcher, research subjects, and clients of the research were protected from any adverse consequences of the study by following laid down rules and procedures of ethics in research. The study considered ethical factors in a number of ways, based on the views of Gravetter and Forzano (2015). They are of the view that, interpersonal ethics require concern for the dignity, privacy, and well-being of those who are studied, the process of data collection, analyses and reporting. These issues were the right to privacy, voluntary participation, no harm to

participants, confidentiality and the right to withdraw from the intervention. In addition, it is concerned with considering the procedures that should be useful for guarding those who take part in the research, whenever it is deemed fit.

To gather data from the sampled individuals, the researcher first submitted a copy of the proposal for this study and the instrument to the Institutional Review Board (IRB) of the University of Cape Coast (UCC) to review. This was done to ensure that the research participants, the university community, and the country at large are protected. Based on the guidelines of IRB of UCC, the researcher ensured that all ethical requirements such as academic honesty, plagiarism, acknowledgement of copyrighted materials used, and institutional ethical clearance were addressed. Furthermore, permissions were sought from the management of the various selected colleges after presenting to them copies of an introductory letter and ethical clearance given to the researcher by the Department of Guidance and Counselling and IRB of UCC respectively.

The respondents' privacy was respected by seeking their consent first as one of the tenets in social research talks about voluntary participation of respondents. For this reason, there was explanation of the objectives of the study, as well as its significance to boost respondents' voluntary participation. The instructions and questions were read to the respondents and clarifications were made where needed. The researcher recognised that the inventory was an intrusion into the lives of the respondents in terms of time taken to complete the inventory and possible invasion of privacy.

The researcher was sure that the respondents understood the content very well, the counselling session began and also the questionnaires were

administered with some assistance from the three research assistants who were conversant and familiar with administering of questionnaires and issue of study behaviour. The respondents were thoroughly informed before commencing the research, and they were well treated throughout the research. Respondents were encouraged to feel free and air their views as objectively as possible and that they had the liberty to choose whether to participate or not. They also had the option to withdraw their consent at any time and without any form of adverse consequence. They were assured that the information they provided will be used solely for research purpose and nothing else. The researcher maintained objectivity, presented the true research findings, used the research results for academic purposes only as outlined in the research protocol of IRB of UCC, Ghana.

Controlling Threat to Validity

Quasi-Experimental Design is noted of its inability to control for all confounding or extraneous variables. The presence of such variables is a major setback and can make it extremely difficult to draw conclusions about cause-and-effect relationship. In order to maximise internal validity, researchers need to control confounding variables so that these variables are ruled out as explanations for any effects observed (Kumar, 2014). The current researcher ensured that internal validity threats or extraneous variables such as instrumentation, testing, information flow and experimental mortality were controlled to a large extent.

With respect to instrumentation, there were no changes in the SBI. The same inventory was used to collect both the pre-test and post-test data. In other words, there was consistency in the form and use of the research instrument.

This ensured that changes in the measurements are attributable to the treatment and not to changes in instrumentation. Also, the time between the pre-test and post-test was long enough to prevent the participants from recalling the items. That is, two weeks after the pre-test and one week after the treatment, in attempt to control threats relating to testing. The participants may be able to remember the items in the survey instrument during the post-test period if the time interval between the pre-test and post-test is too short. This may lead to higher scores in the post-test.

To control treats of information flow, Wiawso was chosen as control group for the study to control the experimental contamination because it is far away from the experimental group. This controlled flow of information from the experimental group to the control group. Finally, treatment sessions were made lively and practical to entice participants to stay in the group throughout the treatment. They were also provided with refreshments during counselling sessions to motivate them to attend. The researcher also recruited a homogenous sample to combat the effect of extraneous variables. With this, the sample was based on the scores of the pre-test, thereby having only those who had poor study behaviour (101-200) constituting the sample for the study.

Intervention Procedures

The intervention procedures proposed by Awabil (2016) were used. The procedure was divided into three phases as follows: pre-counselling phase, counselling phase and post-counselling phase. The type of counselling adopted was the group counselling process.

Pre-counselling phase

At the pre-counselling stage (pre-treatment phase), the researcher engaged in an interactive session with students. This was done with the assistance of the Guidance and Counselling Co-ordinators and trained assistants. During the session, the researcher sought the consent of the respondents to participate in the study. The researcher then explained to them what the study was all about. The pre-testing took place in their normal lecture room settings. The SBI was administered to the three groups in order to collect baseline data. The pre-test took place two weeks before the treatment phase. The completed inventories were collected, scored, coded and analysed by the researcher using PASW Version 21.0. The result of the pre-test was used to select both the experimental and control group of the study. The result was also kept for future comparison with the post-test result in order to determine the effects or otherwise of the counselling intervention/treatment.

Counselling phase

The counselling phase comprised of two interventions: study skills and self-reinforcement counselling. The argument of the study was that, through effective counselling interventions with regard to study skills counselling and self-reinforcement counselling, students' study behaviour might be improved significantly. These counselling interventions were used as treatment.

Study skills counselling

The study skills counselling took place in eight weeks. That is, eight weeks was used for the actual treatment. The first week and the last week aimed at beginning and closing the groups. Each week represented one session, which lasted for a maximum of one and half hours. In relation to

choosing an eight-week plan for actual treatment. Hussain's (2016) follow-up study found clients reporting a good outcome after an average of 5.47 sessions, while those who reported their situation was the same or worse than before therapy attended an average of 2.67 sessions. Right from the start of treatment, the researcher encouraged the members to look for positive signs of changes in study behaviour.

Week One: The first week's session was used to allow members familiarise and build healthy relationships. As part of the activities, group members introduced themselves to each other. The purpose of the group was discussed. The roles of the group leader and group members were explained. Group rules were also set. The group members were challenged to start thinking about their goals. Before the beginning of each session, preferred goals were established. This is to identify what change looked like for the participants. Goals set must be specific, measurable, attainable, realistic, and set within a time-frame. Participants were also encouraged to note any changes in their study behaviour before the next session.

Week Two: The aim of this section was to explain concept of study skills and its importance. The types of study skills such as time management, note-taking and concentration strategies were also outlined and discussed. In addition, major issues of time management such as the meaning and importance were stated and discussed, as well as the skills involved in managing time effectively. The skills included the preparation of semester, weekly and daily schedules. The making of personal timetables was also examined. Samples of time management schedules was also presented and

discussed. Participants were given assignments on the making of a personal timetable.

Week Three: Concentration and making use of a library are skills treated this week. Brainstorming method was used to lead participants to identify and discuss ways of reducing distractions during studies. General guidelines for ensuring effective concentration during learning was spelt out and discussed. Here, the aim was to state the purpose of using a library and identify and explain the strategies for finding relevant materials in the library. Group assignment was given to participants to visit a library and obtain information on the services offered and how they could be accessed for discussion in the next session.

Week Four: The focus of this week was on the participants' learning how to assess information in the library: Using question and answer technique, the counsellor elicited from participants how one can access information from the library and then give the summary after the discussion.

Week Five: Discussion for this week concentrated on how to acquire note-taking skills: here the nature, purpose and skills of note-taking were stated and described. The counsellor also demonstrated how the skills were used. The six steps of note-taking developed by Cornell (as cited in Wernersbach, 2017) were outlined and discussed. These were record, reduce, recite, reflect, review and recapitulate. Participants were encouraged to learn and practise the skills.

Week Six: The main aim of this week was to explain the concept of consultation/help-seeking, state purposes of consultation and the five steps involved. The advantages of study groups were also discussed.

Week Seven: The counsellor discussed the two major reading methods with participants. That was SQ3R which stands for Survey, Question, Read, Recite and Review/Recall. This was done through verbal instruction and modelling. This discussion also covered other reading method known as ROSEMARY! (L). The acronym ROSEMARY! (L) stands for Repetition, Over-learning, Summarisation, Enumeration, Mnemonics, Application, Revision, Yes! I know it now and Linkage'. These strategies were thoroughly explained to students by the counsellor using verbal instruction, modelling and demonstrated. Students were then asked to learn and practise the methods and report their experiences during the next session.

Week Eight: The eighth week aimed mainly at closing the group. Participants were assisted by the counsellor to review the preceding weeks through questions and answers. The main lessons were summarised and highlighted, members were reinforced for their commitments and any other unfinished discussions were rounded off.

Self-reinforcement counselling

The self-reinforcement intervention also took place over a period of eight weeks. Each week represented one session which lasted for a maximum of one hour. Just like in study skills, the first session was mainly for familiarisation and the last for closure. Group techniques for self-reinforcement were used till the entire intervention period was over. Issues dealt with during the treatment were based on the scales in the SBI. The breakdown for the weekly schedule is as follows:

Week One: Just like in the Study Skills group, the first session was used to allow members familiarise and build healthy relationships. As part of

the activities, group members introduced themselves to each other. The purpose of the group was also discussed. The roles of the group leader and group members were explained. Group rules were also set. The group also was taken through the explanation of self-reinforcement, state two purposes of self-reinforcement and identify and explain at least two types of self-reinforcement. To achieve these objectives, the counsellor led students to define self-reinforcement and enumerated the types using the question and answer method. The purpose of self- reinforcement was also discussed. The types discussed were imaginary reward, material reward, verbal or symbolic reward, potential reward and current reward which were used during the treatment.

Week Two: The objective of week two was to state and explain the six components of self-reinforcement through brainstorming. The counsellor guided participants to identify and discuss the steps to be followed before self-administering a reward. The components or steps involved were specifying conditions under which rewards were to be delivered, self-monitoring, self-evaluation or assessment, self-determination of what to use as a reward and the amount and planning for self-change maintenance. To end this week's session, the counsellor gave out assignments to each individual. Each of the participants was asked to learn and put into practice the self-reinforcement model or strategy.

Week Three: The target study behaviour for self-reinforcement: In this session the counsellor outlined and explained six major dimensions of study behaviour for self-reinforcement and discussed one in details. Through question and answer method, the counsellor elicited from participants the

target dimensions of study behaviour to self-reinforce such as time management, concentration, note taking, consultation and reading and library use.

Week Four: In this week's session the counsellor assisted participants to define the term "effective time management", stated two purposes of time management and prepared at least three schedules of study. Also using questions and answers, the counsellor elicited from participants' effective time management skills such as preparation of semester, weekly and daily schedules and making a personal study timetable. Samples of time management schedules were displayed for the participants to observe. The session was concluded by giving participants an assignment to do regarding the schedules presented.

Week Five: The objective of this week was to enable participants to discuss at least five ways of controlling distractions during studying and also understand help-seeking or consultation model. Brainstorming strategy was used by the counsellor to lead participants to identify and state how to control distractions during studying. Also participants were taken through meaning of the term "consultation'' and outlined two purposes of consultation. The role of study group as a help-seeking strategy was also discussed. The counsellor then outlined five steps that constituted the help-seeking model.

Week Six: The week's focus was to state at least two purposes of taking notes at lectures and describing the Cornell method of note-taking. The activities here included the use of question and answer method by the counsellor to assist the participants to state what note-taking skills are. Aside that, the counsellor outlined, explained, and modelled the use of the Cornell

method of note-taking to participants. It consisted of six steps, namely, record, reduce, recite, reflect, review and recapitulate. Participants were asked to learn and practise the Cornell method of note-taking.

Week Seven: The aim of this week was to state and describe two major reading strategies. This session exposed students to two major reading strategies, namely, SQ3R and ROSEMARY! (L). These strategies were thoroughly explained and demonstrated to students of their use by the counsellor. Students were then asked to learn and practise the methods and reported their experiences during the next session. Making use of the college library: here, the importance of the library and the strategies students can employ in accessing learning materials in the subject matter was discussed. After using the question and answer technique to elicit from participants the importance of a library facility, the counsellor gave the summary.

Week Eight: The eighth week aimed at closing the group. The main lessons were summarised and highlighted, members were reinforced for their commitments and any other unfinished discussions were rounded off. Participants were also encouraged to learn and put into practice all the skills taught.

Post-counselling phase

After the intervention sessions were over, I allowed a wait period of two weeks before conducting the post-test. This was to allow the participants to apply the skills they learnt during the intervention for a valid and reliable post-test result. Thus, the counsellor re-administered the SBI to participants in order to ascertain the effect of the treatment on their study behaviour. The results of the pre-test (before counselling) and that of the post-test (after

counselling) were compared for differences. The extent of the difference in the mean scores determined the effects of the treatments.

Data Processing and Analysis

The study adopted quantitative approach. As a result, the data were sorted and coded based on the procedures within the variable view of the statistical analysis software tool known as the PASW version 21.0. It is one of the statistical software packages popular with social scientists and other professionals when analysing quantitative data (Kumar, 2014; Pallant, 2010). Before the coding process, the researcher skimmed and scanned through the answered questionnaires to ensure that they were devoid of any irrelevant responses before feeding the computer with the data.

After the coding, the data were inputted into the data view of the software to complete the keying-in process. The raw data that were collected through the questionnaire was converted into the actual variables of interest through the pooling system. That is, the eight (8) items in each of the five (5) dimensions of study behaviour were pooled together to form each dimension of study behaviour. These five (5) dimensions were also pooled together to form the composite variable of study behaviour.

Data on the background characteristics of the respondents were first analysed using frequencies and percentages. The results were then cross-tabulated. Cross tabulation is a descriptive way of presenting data comparatively using frequency count and percentage distributions. This was done for gender and age distributions of respondents comparatively against the treatments (control, study skills and self-reinforcement). The study tested four hypotheses. Prior to testing these hypotheses, the various variables were

described using descriptive statistics such as means, standard deviations, median, and skewness. In addition, one-way ANOVA was performed to compare the pre-test scores of three groups.

Hypothesis One was tested using one-way analysis of covariance (ANCOVA). One-way ANCOVA was used to adjust the post-test scores based on any initial differences that may result from the pre-test (Amedahe & Asamoah-Gyimah, 2016). Thus, it was chosen in order to control for possible variance in pre-test scores among groups. ANCOVA compared the adjusted post-test scores of the three groups while controlling for their pre-test scores. It is also ideal in the correction for bias and adjusts the post-test means for pre-test differences since intact groups were employed. In this study, participants were not randomly assigned to the various groups, and the ANOVA test showed differences in the pre-test among the groups. Therefore, the use of ANCOVA helped in reducing that error.

Hypothesis Two was tested using one-way multivariate analysis of covariance (MANCOVA) to compare the post-test scores of the groups on the five dimensions of study habit (time management, concentration, consultation, note taking, reading and library use) while controlling for their pre-test scores. MANCOVA was used because the dependent variables were more than one. According to Pallant, the use of MANCOVA is very efficient and helps reduce type I error. Separate univariate ANCOVAs were performed on the dimensions of study habit using Bonferoni's adjustment of 0.01, thus, the original alpha of 0.05 divided by five (dependent variables). This new alpha level (Bonferoni) helped to control for type I error associated with running of multiple tests.

Hypothesis Three was tested using two-way ANCOVA. Two-way between groups ANCOVA was performed for the gender influence on the groups. Two-way ANCOVA is a test that is performed to compare scores on two independent variables on a dependent variable that is continuous in nature. The dependent variable was the post-test scores of participants. The independent variables were groups and gender. Groups had three levels: control group, study skills counselling group, and self-reinforcement counselling group. Gender also had two levels: male and female.

Hypothesis Four was tested by performing a two-way between groups ANCOVA. The dependent variable was the post-test scores of participants. The independent variables were groups and age category. Groups had three levels: control group, study skills counselling group, and self-reinforcement counselling group. Age was categorised into three levels: 17 – 20 years, 21 – 23 years, and above 23 years.

Chapter Summary

This chapter presents the methodology used in the study in detail. It examined the epistemological orientation, research approach and design, population, sample and sampling procedure, and instrumentation of the study. It was established that the study adopted a quasi-experimental design where quantitative data were collected. The chapter further looked at the statistical analyses used to test the propositions of the study. This chapter also discussed the nature of the data and treatments given, methods and programmes used to analyse the data.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

The purpose of the study was to investigate the effects of study skill and self-reinforcement counselling on study behaviour of CoE students in Central and Western Regions of Ghana. The Quasi-experimental Design involving pre-test-post-test control group was employed to carry out this study. The study engaged 60 participants who were assigned to three groups. Twenty participants each were assigned to study skills, self-reinforcement counselling and control groups. Participants in all the three groups were pre-tested. Participants in the study behaviour group received an eight-week treatment on study behaviour counselling.

Participants in the self-reinforcement group also received an eight-week treatment on self-reinforcement counselling, while participants in the control group were allowed to carry out with their usual activities. Participants in all the three groups were post-tested after the eight-week intervention.

This chapter presents the analysis of the data collected from the field. It also presents the results and discussion of the study. The discussion includes the interpretations of the data with reference to previous findings, theory and specific responses given by the respondents in accordance with the purpose of the study. The first part of the chapter deals with the background characteristics of respondents which serve as a preliminary analysis to the

study. The second part is devoted to the research hypotheses. Both Descriptive and Inferential Statistical tools were employed in the data analysis.

Analysis of Respondents' Background Characteristics

This part of the chapter deals with the background characteristics of the respondents which are based on their gender and age. The study examined the effects of these variables on the study variables, as a result examined their distribution using cross tabulation. The results are presented in Tables 5 and 6.

Table 5: Distribution of Respondents by Gender

	Groups of Respondents							
	Control		Experimental Group					
Gender of	Group		Study Skills		Self-Reinforcement		Total	
Respondents	N	%	N	%	N	%	No	%
Male	10	50.0	10	50.0	10	50.0	30	50.0
Female	10	50.0	10	50.0	10	50.0	30	50.0
Total	20	100	20	100	20	100	60	100

Source: Field work (2018)

As shown in Table 5, equal number of the participants was selected for the study. Thus, (50%) were males and 50% were females. Equal number of respondents (50%) was males within the study skills counselling group and self-reinforcement counselling group. Largely, the results showed that the respondents were equitably distributed among the two experimental groups and the control group. This showed that, if there was a difference in study behaviour of students, in the case of this study, it was not based on the sample but on the gender dynamics of the respondents.

The study further collected data on the age group or range of respondents. Table 5 presents results regarding the age distribution of the respondents.

Table 6: Distribution of Respondents by Age

Age of Respondents	Groups of Respondents							
	Control Group		Experimental Group					
			Study Skills		Self-Reinforcement		Total	
	N	%	N	%	N	%	N	%
17 – 20 years	6	30.0	4	20.0	3	15.0	13	21.7
21 – 23 years	6	30.0	9	45.0	7	35.0	22	36.7
23 years +	8	40.0	7	35.0	10	50.0	25	41.6
Total	20	100	20	100	20	100	60	100

Source: Field work (2018)

From Table 6, 41.6% of the respondents were above 23 years while 36.7 percent were between the age ranges of 21 – 23 years. Also, 21.7 percent of the respondents were within the age range of 17 – 20 years. The results showed that the respondents were within a homogeneous group, with regard to age. They were all within the youth age group in Ghana, as a result might exhibit or demonstrate similar study behaviours.

Testing of Research Hypotheses

This section presents the results pertaining to the research hypotheses of the study. The data were analysed quantitatively using both descriptive and inferential statistical tools. These statistical tools were used because, the responses to the items with regard to the variables were measured using a unilinear scale, and also the preliminary analysis at the pre-test stage shows that the distribution was normal. That is, the various statistical tools were used after the researcher had performed the test of normality to find out whether the distribution was normal or not. Mean and standard deviation coefficients are used when the distribution is normal, while median and skewness coefficients are used when the distribution is skewed (Pallant, 2010). According to Pallant,

in a normal distribution the mean and the median are approximately the same.

The skewness values must have a threshold of -0.5 to 0.5.

The skewness values of the distribution were closer to each other, and were within an acceptable threshold of a normal distribution (they were within a range of -0.413 to 0.442). The standard deviations were also moderate and closer to each other, indicating the non-dispersion in a widely-spread distribution. The moderateness of the standard deviations of the distribution shows that the views of the respondents were coming from a moderate homogeneous group, that is, a group with similar characteristics or similar understanding with regard to the issues under consideration. This means that the respondents' views on the issues were an approximation to a normal distribution. In all, the data were analysed to test four research hypotheses. The hypotheses tested and the results are presented as follows:

H_o1: There is no statistically significant effect of (a) study skills counselling and (b) self- reinforcement counselling on study behaviour of CoE students in Central and Western Regions.

H_o2: There is no statistically significant effect of (a) study skills counselling and (b) self- reinforcement counselling on each of the dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use).

H_o3: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of gender.

H_o4: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of age.

Levels of study behaviour before and after intervention

In order to test the stated research hypotheses, the study first examined the levels of study behaviour of students before and after the intervention in order to know whether the intervention had an impact. This section first presents the descriptive statistics on study behaviour of the respondents before and after the intervention. Table 7 presents the results on study behaviours with regard to the pre-test and post-test scores of the study groups.

Results from Table 7 showed that at the pre-test stage, the level of study behaviour for the control group was (M = 136.05, SD = 15.63), study skills group (M = 134.20, SD = 11.43), and that of self-reinforcement group (M = 124.90, SD = 14.16). These results implied that the study behaviour for all the respondents across the three groups at the pre-test stage was not encouraging since mean scores ranged between 101 and 140 based on cut-off point used which indicated that students with scores 101 and above have problems with their study behaviour.

Table 7: Descriptive Statistics on the Pre-Test and Post-Test Scores of the Groups (N = 60)

		Pre-test		Post-test	
Study Groups	N	M	SD	M	SD
Control	20	136.05	15.63	134.80	9.25
Study Skills	20	134.20	11.43	91.30	10.64
Self-reinforcement	20	124.90	14.16	77.35	10.81

Source: Field work (2018)

Where N = sample size, M = mean, and SD = standard deviation.

Furthermore, the results in Table 7 indicated that apart from the control group (M = 134.80, SD = 9.25), the post-test scores for study skills group (M = 91.30, SD = 10.64) and self-reinforcement group (M = 77.35, SD = 10.81) were approximately within a mean range that can be described as 'good study behaviour' category (61 – 100). Even though on the face value it appeared the study behaviour of participants in the experimental groups were enhanced at the post-test stage, it could not be concluded that this was as a result of the interventions. Similarly, one could not conclude that the difference between the control and experimental groups was statistically significant. Results in the subsequent sections would test whether interventions provided in the experiment were effective or not, and also whether the difference between the control and experimental group was statistically significant.

Test for Normality and Outliers

This section specifically presents test for normality assumption and outliers in the pre-test and post-test data. Table 8 presents the results of the tests.

Table 8: Test for Normality and Outliers (N = 60)

	Control		Study Skills		Self-reinforcement	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Mean	136.05	134.80	134.20	91.30	124.90	77.35
Standard deviation	15.63	9.25	11.43	10.64	14.16	10.81
5% Trimmed mean	136.17	135.17	134.11	90.67	124.50	77.11
Median	137.50	136.00	133.50	90.50	123.50	73.50
Skewness	.011	-.413	.225	.387	.298	.442
Std. Error	.512	.512	.512	.512	.512	.512
$Z_{skewness}$	.021	-1.392	.439	1.342	.582	.863
Shapiro-Wilk Test Statistic	.966	.938	.967	.946	.980	.947
Sig.	.675	.220	.691	.308	.937	.318

Source: Field work (2018)

As shown in Table 8, for all the three groups (control, study skills, and self-reinforcement), their mean scores for both pre-test and post-test were approximately equal to both the five percent (5%) trimmed mean and the median scores. In addition, the $z_{skewness}$ for all the three groups were less than 3.29. These results imply that the data control, study skills, and self-reinforcement groups did not violate the normality assumption. Table 6 further revealed that for all the groups, the five percent (5%) trimmed mean was approximately the same as the mean scores, and this suggests that no outliers were in the data. In addition, the Shapiro-Wilk test for all the scores among all the groups were not significant ($p > .05$), which implies that scores did not violate the normality assumption. This result was confirmed by the normal Q-Q plots of these groups.

Preliminary Analysis

One-way analysis (ANOVA) was performed to compare the pre-test scores for the three groups: control, study skills, and self-reinforcement. This was to ensure that the groups are equal in terms of study behaviours on the pre- scores. The results of the ANOVA are presented in Tables 9 and 10.

The result for the Levene's test of homogeneity of variance was not significant, $p = .317$. This implied that equal variance was assumed and for that matter homogeneity of variance assumption was not violated. The results of the ANOVA test are presented in Table 9.

Table 9: ANOVA Test Comparing Groups on Pre-Test Scores (N = 60)

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1428.233	2	714.117	3.723*	.030
Within Groups	10933.950	57	191.824		
Total	12362.183	59			

Source: Field work (2018) *Significant at .05 level

As shown in Table 9, there was a statistically significant difference in the mean scores of pre-test among the three groups, F (2, 57) = 3.72, p = .030. Since there was a significant difference between the three groups, the study further calculated the margin of the difference between the groups using the eta square (η^2) Co-efficient. That is, the magnitude of the difference was explained using eta squared (η^2) as follows:

$$\eta^2 = \frac{SS_{effect}}{SS_{total}} \qquad \eta^2 = \frac{1428.233}{12362.183} \qquad \eta^2 = .116$$

The magnitude of the difference between the groups can be described as large ($\eta^2 = .12$). According to Pallant (2010), an eta square of 0.14 or higher represents large margin of difference. This implied that, approximately 12% of the variance in pre-test scores was explained by the groups. Since the study made use of three groups, there was the need to find out exactly where the difference came from. For this purpose, the researcher performed a post-hoc analysis using Tukey HSD. The results are presented in Table 10.

Table 10: Multiple Comparisons on Pre-test Scores Tukey HSD (N = 60)

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
Control	Study skills	1.85	4.38	.907
	Self-reinforcement	11.15*	4.38	.036
Study skills	Control	-1.85	4.38	.907
	Self-reinforcement	9.30	4.38	.094
Self-reinforcement	Control	-11.15*	4.38	.036
	Study skills	-9.30	4.38	.094

Source: Field work (2018) *Mean difference is significant at .05 level

The results in Table 10 showed a statistically significant difference in the mean scores of respondents study behaviour between the control group and the self-reinforcement counselling (Mean Difference = 11.15, p = .036). The

results, however, showed no statistically significant difference in the pre-test scores of study behaviour between control group and study skills group (Mean Difference = 1.85, p = .907). Similarly, there was no statistically significant difference in the study behaviour of respondents at the pre-test stage with regard to study skills group and self-reinforcement group (Mean Difference = 9.30, p = .094). In all, it could be concluded that the participants were not equal on their pre-test scores, hence ANCOVA was used to control for the pre-test scores. In addition to the normality assumption, homogeneity of regression slopes assumption was tested, as presented in Figure 2.

As indicated in Figure 2, the relationship between the covariate (pre-test scores) and the dependent variable (post-test scores) is the same across the levels of the independent variable (groups). This shows that the homogeneity of regression slopes assumption was not violated. Following the no-violation of this assumption, ANCOVA test was performed.

Hypotheses Testing

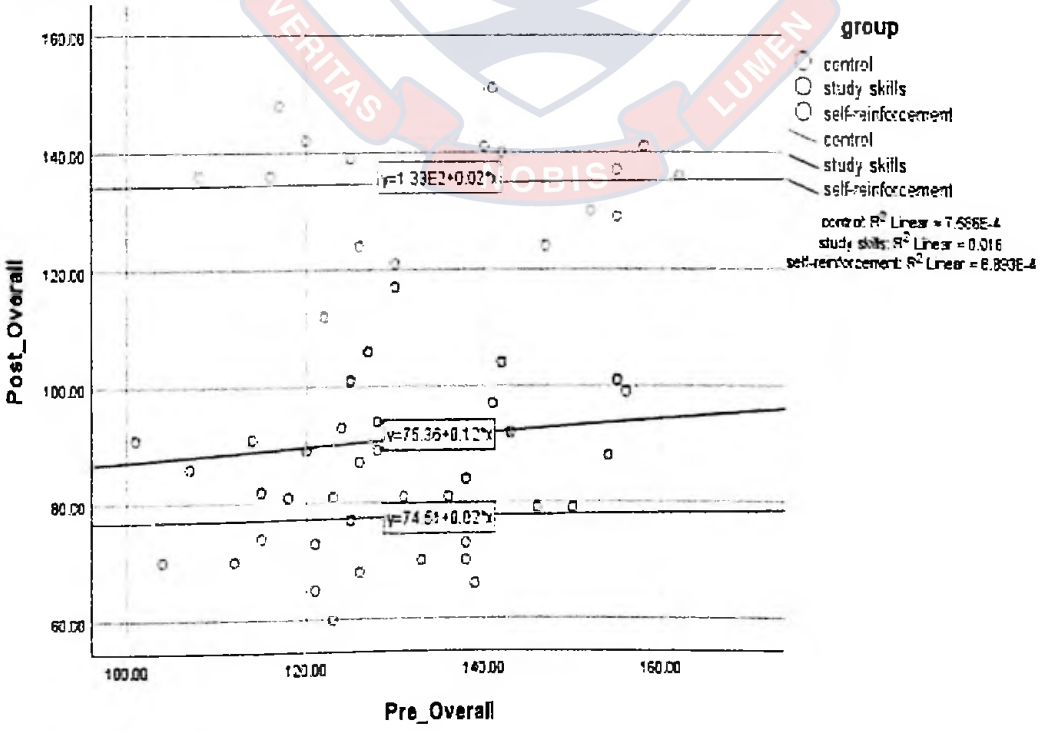

Figure 2: Homogeneity of Regression Slopes

This section specifically presents the results that were used to test the hypotheses formulated to guide the study. The first to consider was hypotheses one.

H_o1: There is no significant effect of (a) study skills counselling and (b) self- reinforcement counselling on study behaviour of students in CoE in Central and Western regions.

This hypothesis sought to determine the effect of study skills counselling and self-reinforcement counselling on the study behaviour of participants. One-way ANCOVA was performed to test this hypothesis. The results are presented in Table 10.

Table 11: ANCOVA Tests of Between-Subjects Effects Comparing Post-test Scores of Groups (N = 60)

Source	Df	Mean Square	F	Sig.	Partial Eta Squared (η_p^2)
Corrected Model	3	11978.287	112.231	.000	.857
Intercept	1	5704.309	53.447	.000	.488
Pre-test	1	19.160	.180	.673	.003
Group	2	16447.820	154.109*	.000	.846
Error	56	106.728			
Total	60				
Corrected Total	59				

Source: Field work (2018) *Significant at .05 level.

Dependent Variable: Post-test

One-way ANCOVA test was performed to compare the post-test scores for control, study skills, and self-reinforcement groups while controlling for their scores on the pre-test. The independent variable was the groups, which has three levels. The dependent variable was the post-test scores on study behaviour, which was measured on continuous basis, and the

covariate was the pre-test scores on study behaviour which was also measured on continuous basis.

From the results in Table 11, there is a statistically significant difference in post-test scores among participants in the three groups, while controlling for their pre-test scores, F (2, 56) = 154.11, $p < .001$, $\eta_p^2 = .85$. As shown in the partial eta squared Co-efficient for group, the results imply that 85 percent of the variance post-test scores were explained by the groups. A post hoc analysis using Tukey LSD was performed, and the results are presented in Table 12.

Table 12: Pairwise Comparisons for Groups (Tukey LSD) (N = 60)

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
Control	Study skills	43.423*	3.272	.000
	Self-reinforcement	56.983*	3.448	.000
Study skills	Control	-43.423*	3.272	.000
	Self-reinforcement	13.561*	3.394	.000
Self-reinforcement	Control	-56.983*	3.448	.000
	Study skills	-13.561*	3.394	.000

Source: Field work (2018) Based on estimated marginal means

*The mean difference is significant at the .05 level.

Results from Table 12 showed that there is a statistically significant difference in the post-test scores for participants in the control group and study skills group (Mean Difference = 43.423, $p < .001$) with regard to their study behaviour. This result implies that study skill counselling was effective in enhancing study behaviours of respondents. Similarly, there was a statistically significant difference in the post-test scores of respondents with regard to the control group and self-reinforcement group (Mean Difference = 56.983, $p <$

.001) when they were exposed to the study behaviour inventory. This result also implies that self-reinforcement counselling was effective in enhancing study behaviour of participants.

The results further revealed a statistically significant difference in the post-test scores of participants in the study skills group and that of the self-reinforcement group (Mean Difference = 13.561, $p < .001$). This result implies that study skills counselling intervention was more effective in improving study behaviour of students in the various CoE in Ghana than self-reinforcement counselling intervention. Table 12 presents the adjusted means after controlling for the pre-test scores.

Table 13: Adjusted Post-test Scores (N = 60)

Group	Mean (M)	Standard Error (SE)
Control	134.619[a]	2.349
Study skills	91.196[a]	2.323
Self-reinforcement	77.635[a]	2.406

Source: Field work (2018)

a. Covariates appearing in the model are evaluated at the following values: Pre-test = 131.7167.

The results provided so far, in addition to that of Table 12, were able to help in taking decision regarding the first and second research hypotheses. As indicated, from the results on the first research hypothesis, the study has provided evidence which has led to the decision of rejecting the first research or null hypothesis in favour of the statistical or alternative hypotheses.

The study rejects the first hypothesis since the results show that there was a statistically significant effect of study skills and self-reinforcement

counselling on study behaviour of students in Central and Western regions of Ghana.

H_o2: There are no statistically significant effects of (a) study skills counselling and (b) self- reinforcement counselling on each of the dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use).

The second research or null hypothesis sought to determine the effect of study skills counselling and self-reinforcement counselling on each of the five dimensions of study behaviour of participants (time management, concentration, consultation, note taking, reading and library use). To test this hypothesis, one-way MANCOVA was used to compare the post test scores of the groups on the five dimensions of study behaviour while controlling for their pre-test scores. Tables 13 and 14 present the results.

***Table 14: Pillai's Trace* Multivariate Tests Comparing Groups on Dimensions of Study Behaviour (N = 60)**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared (η_p^2)
Intercept	Pillai's Trace	.51	10.65	5	52	.000	.506
	Wilks' Lambda	.49	10.65	5	52	.000	.506
	Hotelling's Trace	1.02	10.65	5	52	.000	.506
	Roy's Largest Root	1.02	10.65	5	52	.000	.506
Group	Pillai's Trace	1.09	12.81	10	106	.000*	.547
	Wilks' Lambda	.11	20.45	10	104	.000	.663
	Hotelling's Trace	5.97	30.46	10	102	.000	.749
	Roy's Largest Root	5.65	59.87	5	53	.000	.850

Source: Field work (2018)

*Significant at .05 level

The result of Box's M test of equality of covariance violated the variance-covariance matrices assumption, F = 1.75, df1 = 30, df2 = 102295.12, p = .007, M = 60.13. The results of the Levene's test of equality of error variances for the dimensions of study behaviour were not significant (p > .05). Due to the violation of equality of covariance, Pillai's Trace test was performed.

The results from Table 13 show a statistically significant difference among the groups on the combined post-test scores of the dimensions of study behaviour, F (10, 106) = 12.81, p < .001; η_p^2 = .55; Pillai's Trace V = 1.10. This result implies that 55% of the variance in the combined study behaviours can be explained by the groups. Separate univariate ANCOVAs were performed on the dimensions of study behaviour using Bonferoni's adjustment of .01. This alpha level helps to control for type I error. The results are presented in Table 14.

In Table 14, the univariate test showed a statistically significant difference in the post-test scores of time management among the three groups, F (2, 56) = 30.32, p < .001, η_p^2 = .52. This result implies that difference within the groups (independent variable) can be explained by 52% of the variance in time management. The results also revealed a statistically significant difference in the post-test scores of concentration among the three groups, F (2, 56) = 68.12, p < .001, η_p^2 = .71. The result implies that independent variable explained 71% of the variance in concentration. The results further showed a statistically significant difference in the post-test of consultation among the groups, F (2, 56) = 41.83, p < .001, η_p^2 = .60. The result implies that 60 percent of the variance in consultation can be explained by the groups.

Table 15: ANCOVA Test for Study Skills and Self-reinforcement counselling with respect to the Dimensions of Study Behaviour (N = 60)

Source	Dependent Variable	Df	Mean Square	F	Sig.	Partial Eta Squared (η_p^2)
Intercept	Time Management	1	265.35	16.94	.000	.232
	Concentration	1	116.95	10.97	.002	.164
	Consultation	1	335.94	17.53	.000	.238
	Note Taking	1	247.67	17.32	.000	.236
	Reading & Library	1	206.12	16.06	.000	.223
Pre-test	Time Management	1	.13	.01	.927	.000
	Concentration	1	23.37	2.19	.144	.038
	Consultation	1	5.71	.30	.588	.005
	Note Taking	1	.45	.03	.860	.001
	Reading & Library	1	5.01	.39	.535	.007
Group	Time Management	2	474.81	30.32	.000*	.520
	Concentration	2	725.95	68.12	.000*	.709
	Consultation	2	801.70	41.83	.000*	.599
	Note Taking	2	1094.63	76.56	.000*	.732
	Reading & Library	2	433.74	33.79	.000*	.547
Error	Time Management	56	15.66			
	Concentration	56	10.66			
	Consultation	56	19.16			
	Note Taking	56	14.30			
	Reading & Library	56	12.84			

Source: Field work (2018)

*Significant at .01 level (Bonferoni's adjustment)

Furthermore, results from Table 14 show that there was a statistically significant difference in the post-test scores of note taking among the three groups, F (2, 56) = 76.56, $p < .001$, $\eta_p^2 = .73$. The result implies that group accounted for 73 percent of the variance in note taking. Lastly, the results

revealed a statistically significant difference in the post-test scores of reading and library, $F(2, 56) = 33.79$, $p < .001$, $\eta_p^2 = .55$. The result implies that group explained 55 percent the variance in reading and library.

A post hoc analysis was performed to determine differences in the dimensions of study behaviour among the three groups. Table 15 presents the results.

Results from Table 15, with regard to time management dimension of study behaviour, there is a significant difference in the mean score for the control group and that of the study skills counselling group (Mean Difference = 5.344, $p < .001$). Similarly, there was a statistically significant difference in the mean score for control group and self-reinforcement counselling group (Mean Difference = 10.261, $p < .001$). The result further showed a significant difference between the mean score of study skills group and self-reinforcement group (Mean Difference = 4.918, $p < .001$).

From the results, it can be concluded that both study skills counselling and self-reinforcement counselling were effective in improving time management of respondents. Even though both therapies were effective, self-reinforcement was more effective in enhancing time management study behaviour of students from the CoE in Central and Western Regions of Ghana than study skills counselling intervention.

Table 16: Pairwise Comparisons of Groups on the Dimensions of Study Behaviour (N = 60)

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.
Time Management	Control	Study skills	5.344*	1.253	.000
		Self-reinforcement	10.261*	1.321	.000
	Study Skills	Control	-5.344*	1.253	.000
		Self-reinforcement	4.918*	1.300	.000
	Self-reinforcement	Control	-10.261*	1.321	.000
		Study skills	-4.918*	1.300	.000
Concentration	Control	Study skills	9.864*	1.034	.000
		Self-reinforcement	11.485*	1.089	.000
	Study skills	Control	-9.864*	1.034	.000
		Self-reinforcement	1.620	1.072	.136
	Self-reinforcement	Control	-11.485*	1.089	.000
		Study skills	-1.620	1.072	.136
Consultation	Control	Study skills	10.042*	1.387	.000
		Self-reinforcement	12.305*	1.461	.000
	Study skills	Control	-10.042*	1.387	.000
		self-reinforcement	2.262	1.438	.121
	Self-reinforcement	Control	-12.305*	1.461	.000
		Study skills	-2.262	1.438	.121
Note Taking	Control	Study skills	13.112*	1.198	.000
		Self-reinforcement	13.121*	1.262	.000
	Study skills	Control	-13.112*	1.198	.000
		Self-reinforcement	.010	1.242	.994
	Self-reinforcement	Control	-13.121*	1.262	.000
		Study skills	-.010	1.242	.994
Reading and Library Use	Control	Study skills	5.060*	1.135	.000
		Self-reinforcement	9.811*	1.196	.000
	Study skills	Control	-5.060*	1.135	.000
		Self-reinforcement	4.751*	1.177	.000
	Self-reinforcement	Control	-9.811*	1.196	.000
		Study skills	-4.751*	1.177	.000

Source: Field work (2018)

Based on estimated marginal means *The mean difference is significant at the .01 level (Bonferoni's adjustment).

In relation to concentration dimension of study behaviour, there is a significant difference in the mean score for the control group and that of the study skills counselling group (Mean Difference = 9.864, $p < .001$). The results also showed a significant difference in the mean score for control group and self-reinforcement counselling group (Mean Difference = 11.485, $p < .001$). The result, however, revealed no statistically significant difference in the post-test scores of study skills counselling group and self-reinforcement counselling group (Mean Difference = 1.620, $p = .136$). This shows that study skills and self-reinforcement counselling interventions are able to boost the concentration of students.

In terms of consultation, the result from Table 15 show that there was a statistically significant difference in the mean scores of control group and study skills group (Mean Difference = 10.042, $p < .001$). A significant difference also exists in the mean score of control group and self-reinforcement group (Mean Difference = 12.305, $p < .001$). On the contrary, no significant difference exists in the mean score of study skills group and self-reinforcement counselling group (mean difference = 2.262, $p = .121$). This implies that both study skills counselling and self-reinforcement counselling are effective in enhancing students' consultation, and they equally worked in that respect.

With regard to note taking, again there was a statistically significant difference in the mean scores of the control group and study skills counselling group (Mean Difference = 13.112, $p < .001$). The result further showed a statistically significant difference between the mean score of the control group and self-reinforcement counselling group (Mean Difference = 13.121, $p <$

.001). There was however, a statistically significant difference between the mean scores of study skills group and self-reinforcement counselling group (Mean Difference = .010, p = .994). From the results of the study, both study skills counselling and self-reinforcement counselling are effective in enhancing students' note taking, and they equally worked.

The results in Table 15 further revealed that in terms of reading and library use, a statistically significant difference exist in the mean scores of the control and study skills counselling group (Mean Difference = 5.060, p < .001). Similarly, there exist a statistically significant difference in the mean scores of control and self-reinforcement counselling group (Mean Difference = 9.811, p < .001). The result also showed a significant difference in the mean scores of study skills group and self-reinforcement group (Mean Difference = 4.751, p < .001). The results imply that both study skills counselling and self-reinforcement counselling were very effective in enhancing students' reading and library use. In addition, self-reinforcement counselling was effective than study skills counselling in terms of enhancing students' reading and library use. Table 16 shows the details of the adjusted means.

From the results in Table 16, it was evident that both study skills counselling and self-reinforcement counselling were effective in enhancing students study behaviour on all the five dimensions of study behaviour (time management, concentration, consultation, note taking, reading and library use). However, their effectiveness differed in terms of time management and reading and library use. Self-reinforcement counselling was more effective in enhancing time management and reading and library use of the students better

than study skills counselling in terms of concentration, consultation, and note taking both therapies equally worked.

Table 17: Adjusted Post-Test Means on Study Behaviour Dimensions (N = 60)

Dependent Variable	Group	Mean	Std. Error
Time Management	Control	26.29[a]	.90
	Study skills	20.94[a]	.89
	Self-reinforcement	16.02[a]	.92
Concentration	Control	26.90[a]	.74
	Study skills	17.04[a]	.73
	Self-reinforcement	15.42[a]	.76
Consultation	Control	27.65[a]	1.00
	Study skills	17.61[a]	.98
	Self-reinforcement	15.34[a]	1.02
Note Taking	Control	27.83[a]	.86
	Study skills	14.72[a]	.85
	Self-reinforcement	14.71[a]	.88
Reading and Library Use	Control	25.96[a]	.82
	Study skills	20.90[a]	.81
	Self-reinforcement	16.15[a]	.84

Source: Field work (2018)

a. Covariates appearing in the model are evaluated at the following values: Pre-test = 131.7167.

Based on the findings, the study rejected the second research or null hypothesis since the results showed that there were statistically significant effects of study skills counselling and self-reinforcement counselling on each of the dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use).

H_o3: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of gender.

The aim of the third research or null hypothesis was to determine the influence gender had after participants had gone through the experimental conditions. To test this hypothesis, two-way between groups ANCOVA was performed to examine the gender influence on the groups. Two-way ANCOVA is a test that is performed to compare scores on two independent variables on a dependent variable that is continuous in nature. The dependent variable was the post-test scores of the respondents with regard to study behaviour. The independent variables were groups and gender. Groups had three levels: control group, study skills counselling group, and self-reinforcement counselling group. Gender also had two levels: male and female. The results of the test are presented in Table 17.

Table 18: ANCOVA Test for Difference in Study Skills and Self-reinforcement Counselling with respect to Gender (N = 60)

Source	Df	Mean Square	F	Sig.	Partial Eta Squared (η_p^2)
Corrected Model	6	6112.35	61.85	.000	.875
Intercept	1	5599.17	56.66	.000	.517
Pre-test	1	26.44	.27	.607	.005
Group	2	16595.50	167.93	.000	.864
Gender	1	70.86	.72	.401	.013
Group * Gender	2	254.33	2.57	.521	.113
Error	53	98.82			
Total	60				
Corrected Total	59				

Source: Field work (2018) *(N = 60)* *Significant at .05 level

As depicted in Table 17, there was no statistically significant interaction between the groups and gender, F (2, 53) = 2.57, p = .521, η_p^2 = .11. There was statistically significant main effect (group), F (2, 53) = 167.93, p < .001, η_p^2 = .86. There was, however, no main effect of gender, F (1, 53) = .72, p = .401, η_p^2 = .01. The result implies that gender explained 1% of the variance in the post-test scores. This showed that both therapies equally worked for male and female. Table 18 shows the adjusted means for the groups based on gender.

Table 19: Adjusted Means for Groups Based on Gender

Group	Gender	Mean	Std. Error
Control	Male	140.26[a]	3.333
	Female	129.94[a]	3.032
Study skills	Male	88.42[a]	3.006
	Female	94.54[a]	3.322
Self-reinforcement	Male	78.75[a]	3.088
	Female	76.39[a]	3.356

Source: Field work (2018) *(N = 60)*

a. Covariates appearing in the model are evaluated at the following values: Pre-test = 131.7167.

As contained in Table 19, the adjusted mean for males within study skills group was 88.42 while that of females was 94.54. The adjusted mean for males in the self-reinforcement group was 78.75, while that of females was 76.3. Based on the findings, the study failed to reject the null hypothesis which states that there is no statistically significant difference in the study behaviour of participants exposed to study skills counselling, self-reinforcement counselling and control group on the basis of gender.

H_o4: There is no statistically significant difference in the study behaviour of participants exposed to (a) study skills counselling and (b) self-reinforcement counselling and control group on the basis of age.

The last research hypothesis sought to determine whether the study behaviour of participants will differ by age after they have undergone study skills and self-reinforcement counselling. This hypothesis was tested by performing a two-way between groups ANCOVA. The dependent variable was the post-test scores of participants. The independent variables were groups and age category. Groups had three levels: control group, study skills counselling group, and self-reinforcement counselling group. Age was categorised into three levels: 17 – 20 years, 21 – 23 years, and above 23 years. The results are presented in Table 19.

Table 20: ANCOVA Test for Difference in Study Skills and Self-reinforcement Counselling with respect to Age (N = 60)

Source	Df	Mean Square	F	Sig.	Partial Eta Squared (η_p^2)
Corrected Model	9	4020.97	35.13	.000	.863
Intercept	1	5200.85	45.44	.000	.476
Pre-test	1	22.27	.20	.661	.004
Group	2	14953.52	130.65	.000	.839
Age	2	13.62	.12	.888	.005
Group * Age	4	55.49	.49	.747	.037
Error	50	114.46			
Total	60				
Corrected Total	59				

Source: Field work (2018) *Significant p<.05

As shown in Table 19, there is no statistically significant interaction between group and age, F (2, 50) = .49, p >.05, η_p^2 = .04. The result implies

that interaction between group and age explained four percent of the variance in the study behaviour of participants. There was a statistically significant main group effect, F (2, 50) = 130.65, $p < .001$, $\eta_p^2 = .84$, group explaining 84 percent of the variance in study behaviour of participants. The results, however, showed no significant main age effect, F (2, 50) = .12, $p = .888$, $\eta_p^2 = .01$. The result implies that age explained one percent of the variance in study behaviour of participants. Table 21 presents the adjusted means of the groups.

Table 21: Adjusted Means for Groups Based on Age Categories (N = 60)

Group	Age Category	Mean (M)	Std. Error
Control	17 – 20 years	135.202[a]	4.493
	21 - 23 years	132.586[a]	4.403
	23 years +	135.653[a]	3.783
Study skills	17 - 20 years	85.015[a]	5.376
	21 - 23 years	93.510[a]	3.617
	23 years +	91.718[a]	4.057
Self-reinforcement	17 – 20 years	78.980[a]	6.218
	21 - 23 years	78.341[a]	4.117
	23 years +	76.804[a]	3.453

Source: Field work (2018)

a. Covariates appearing in the model are evaluated at the following values: Pre-test = 131.7167.

As shown in Table 20, the adjusted mean score for participants of the ages 17 – 20 years with the control group was 135.20, participants 21 – 23 years had a mean score of 132.59, and that of 135.65. Among the study skills group, participants from the ages of 21 – 23 years had the highest mean score (M = 93.51), followed by those aged above 23 years (M = 91.72), and lastly, participants from 17 – 20 years (M = 85.02). Within the self-reinforcement

group, participants from 18 – 20 years had the highest mean score (M = 78.98), followed by that of 21 – 23 years (M = 78.34), and that of those above 23 years (M = 76.80). These differences were, however, not significant.

The results from Table 20 might imply that both study skills counselling and self-reinforcement counselling did not discriminate on the basis of age categories, hence, both therapies worked equally among with different age groups. Based on the results, the study failed to reject the last research hypothesis since the evidence show that there was no statistically significant difference in the study behaviour of participants exposed to study skills counselling, self-reinforcement counselling and control group on the basis of age.

Summary of Results

In summary, the results that emerged from the study when testing the stated four hypotheses are as follows:

1. The study revealed a statistically significant effect of both study skills counselling and self-reinforcement counselling in enhancing study behaviours of participants. Self-reinforcement counselling was found to be more effective in improving study behaviours than study skills counselling.
2. There was significant effect of both study skills and self-reinforcement counselling are effective in enhancing respondents' study behaviour on all the five dimensions (time management, concentration, consultation, note taking, reading and library use). However, their effectiveness differed in terms of time management and reading and library use. Self-reinforcement counselling was more effective in enhancing time

management and reading and library use of participants better than study skills counselling. In terms of concentration, consultation, and note taking both therapies equally worked effectively in study skills and self-reinforcement counselling. .

3. Male and female participants did not respond differently to either study skills counselling or self-reinforcement counselling. This therefore implies that the two counselling therapies worked equally for both males and females.
4. Both study skills counselling and self-reinforcement counselling did not discriminate on the basis of age categories, hence, both therapies worked equally well among with different age groups.

Discussion of Results

Study Skills Counselling and Self-reinforcement Counselling and Study Behaviour

The findings that emerged from this chapter with regard to the testing of the research hypotheses are discussed in this section. The result indicated that students who were exposed to the two interventions-study skills counselling and self-reinforcement counselling,-recorded higher improvement in study behaviour than their counterparts in the control group. Specifically, the results show that both therapies contributed to 85% of the changes in students' study behaviour. The implication of this finding is that with effective implementation of counselling interventions such as study skills and self-reinforcement counselling, guidance coordinators of the various CoE in Ghana will be in a better position to improve students' study behaviour.

The finding that study skills and self-reinforcement counselling interventions are able to help improve students' study behaviour is consistent with the findings of researchers such as Akafa (2011), Awabil (2013), Kagu (2014), Armstrong (2014), Simon (2015), Agi (2017), and Wernersbach (2017). Akafa (2011) carried out study on "effectiveness of study skills counselling in reducing study behaviour problems of secondary school students in Kaduna State". The main finding that emerged from Akafa's study showed that the study skills counselling was effective in reducing study behaviour problems of students. In other words, study skills counselling is able to help boost students', study behaviour in schools.

The finding of the present study, that study skills and self-reinforcement counselling interventions are able to help improve students' study behaviour corroborates with Awabil (2013) who investigated the effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public universities. The findings of Awabil's study showed that study and self-reward skills counselling had significant effects on study behaviour when compared to the control group. That is, students who received study and self-reward skills counselling improved in their study behaviour more than the control group. This current result is also consistent with Kagu (2004) who conducted an investigation on the effects of group counselling on the learning and remembering strategies of diploma students in University of Maiduguri which he used experimental and control group. The result of Kagu's study revealed that the experimental group acquired significant learning and remembering skills on the other hand, the control group did not do the same.

Furthermore, the finding that study skills and self-reinforcement counselling intervention are able to help enhance students' study behaviour is in line with that of Armstrong (2014) who also explored the role of study skills and study behaviours in students of colour who traditionally have low admissions rates to the University of California. According to Armstrong, one of the key factors that prevent low-income students of colour from being admitted to post-secondary schools is academic preparedness. One way to look at the educational preparation of students of colour was to focus on study skills and study behaviours. Study skills, as it relates to Armstrong's study, focused on meta-cognition, self-efficacy, time management, academic preparation, and group study. The findings that emerged from Armstrong's study show that with appropriate study skills intervention, students' study behaviour can be improved significantly.

Again, the current result is consistent with that of Simon (2015) who found that when proper counselling and guidance is given to learners, they make progress in their education and develop good study behaviour. Perhaps, respondents responded appropriately because they felt study skills counselling will improve their academic performance. According to Simon, effective study skills promote academic excellence and these can only be guaranteed with effective study skill counselling. This shows that study skills training/instruction is of immense importance to students in numerous ways. Simon further posits that success in all academic content areas is often associated with good study skills.

Whereas some students develop effective ways of studying on their own following study skill instructions, a significant proportion of students will

not develop such skill without well-coordinated and accelerated training and regular practice. Educational researchers have found that for students to be successful in class room, effective methods or techniques must be adopted while learning. As a result, study skill training is generally taught to students so as to equip and help them to feel competent and confident about their ability to learn, acquire the ability to learn how to learn and prepare for life-long learning not just academic learning.

This result is also supported by behaviour modification theory which indicates that people can be taught age-appropriate learning skills and techniques (Wendson, 2014). These skills and techniques are to give the learner immediate feedback such as: breaking the tasks down into small steps; repeating the directions as many times as possible; working from the simplest to the most complex tasks; and giving positive reinforcement. Similarly, Wernersbach concurred by remarking that students should be counselled and guided positively to acquire and practise effective technique while learning in a way that will promote self-efficacy, self-esteem, self-determination and inculcate a feeling of independence through their freedom to resolve any challenging situations they may meet in the course of their studies.

The results of the study that both study skills counselling and self-reinforcement counselling enhanced study behaviours of participant are congruent with Agi (2017) who also investigated effects of group counselling and self-reinforcement on students study behaviour in selected universities in Nigeria. The results that emerged from Agi's study indicated that the counselling strategies were effective in improving student's study behaviour. Agi found out that subjects exposed to self-reinforcement skills counselling

improved considerably their study behaviour as compared to the control group. Again, the finding further corroborates the result of Agi (2017) who found that there is a statistically significant difference in study behaviour with regard to self-reinforcement skills counselling group and control group. This finding clearly suggests that participants adequately practised the self-reinforcement strategy because of its influence on learning outcomes.

In addition, the finding of the study that, study skills and self-reinforcement counselling enhance study behaviours of participants is consistent with that of Wernersbach (2017). Using longitudinal (pre-post experimental) research design, Wernersbach conducted a study on effect of counselling on study behaviour of undergraduate students. Thus, Wernersbach's study revealed that, the mean score of study behaviour and attitude in post-testing of controlled group was 30.77, and of experimental group was 33.28. The t-test value (2.36) was obtained which is significant at 0.05 level of significance. There was significant positive increase in the study behaviour and attitudes of the experimental group after the counselling interventions. Wernersbach's result establishes the effectiveness of counselling interventions in developing study behaviour and attitudes which certainly contributes in academic achievement.

The finding is supported by the observation made by Bandura (as cited in Bernard, 2013) that individuals who make self-reinforcement conditional upon performance attainments can raise their college grades by improving study behaviour. The current result that there was significant difference between study skills counselling and self-reinforcement counselling on respondents' study behaviour. is also consistent with the results discovered by

Ohanaka and Ofuani (2010) who found out that the post-test scores on students' study habits in the treatment group were significantly higher than that of the control group. Perhaps participants responded well to the counselling intervention because of the belief that it was going to make significant contribution to their academic performance.

The results further showed that there was significant difference between study skills counselling and self-reinforcement counselling on respondents' study behaviour. Study skills counselling intervention was found to be more effective than self-reinforcement counselling. This suggests that both strategies did not have equal effect on respondents' study behaviour. This finding may be due to the fact that though comprehensive treatment packages were delivered adequately, students actively practised and preferred the study skills strategy than the self-reinforcement strategy. This assertions support Bandura's (as cited in Ohanaka & Ofuani, 2010) observation that clients who monitor their performances and goal attainments and reinforcement themselves for goal achievement typically surpass their counterparts who also monitor their own performances and goal attainment but never engage in overt self-reinforcement.

However, the finding that study skills counselling and self-reinforcement counselling interventions have statistically significant effect on study behaviour is incongruent with the result obtained by Reilly (2014). Reilly found out that there was no significant difference between self-modification counselling group and control group at post-test on study behaviour. A probable justification for Reilly's finding could be that participants in his study did not make use of all the components of the self-

modification strategy compared to those in the current study. In another way, the variation in effectiveness of the therapy could be explained from the fact that self-modification has to do with the use of rewards and reinforcement so participants considered it more appropriate. Naturally, humans are motivated by reinforcements and rewards so it possible that accounted for the differences in the effectiveness of the two therapies in the case of this study.

Although the results of the study have shown that students in CoE in Ghana demonstrated higher improvement in study behaviour when they were exposed to study skills counselling and self-reinforcement counselling interventions, it was necessary to ascertain whether there were significant differences in the mean scores on the five dimensions of study behaviour across the groups. The study found that significant difference existed between each of the treatment groups and control group on the composite variable of study behaviour at post-test. This implied that study skills and self-reinforcement counselling did record positive effects on participants' study behaviour after treatment. Therefore, both counselling techniques were effective in improving study behaviour among CoE students in Ghana, specifically in terms of time management, concentration, consultation, note taking, and reading and library use.

The findings supported the assertions of Gettinger and Seibert (2002) who averred that study skills are academic enablers; that function as critical tools for learning. Gettinger and Seibert further opined that study skills enhance the effectiveness and efficiency of learning.

Study Skills Counselling and Self-reinforcement Counselling and Dimensions of Study Behaviour.

With respect to the dimensions of study behaviour, the findings that emerged from this study showed that there were statistically significant differences in the mean scores on all the five dimensions of study behaviour among the three groups (study skills counselling, self-reinforcement counselling, and control groups) at post-test.

The findings that study skills counselling and self-reinforcement counselling interventions are able to help boost CoE students' time management, concentration, consultation, note taking, and reading and library use behaviours are consistent with the findings of Kagu (2004) who found that subjects exposed to study skills counselling experienced significant improvement in their study behaviour unlike the control group. This findings support the views expressed by Hazard and Nadeau (2016) who posited that study behaviour dimensions such as time management and note taking have been found to have significant influence on students' study behaviour and success.

The finding that study skills counselling and self-reinforcement counselling interventions have statistically significant effects on the five dimensions of study behaviour (time management, concentration, consultation, note taking, and reading and library use) corroborates with that of Awabil (2013) and Agi (2017). Both researchers found that there were statistically significant differences between the control and the experimental groups in their post-test mean scores of all the five dimensions of study behaviour inventory. This implies that study skills counselling and self-reinforcement skills counselling significantly improved respondents' study behaviour compared to the no-treatment group respectively. In other words, the result in

the current finding indicate that both counselling strategies are equally effective in modifying poor study behaviour related to time management, consultation, concentration, note taking and reading and library use.

Perhaps students within the various CoE in Ghana in both groups greatly desired to acquire these important learning strategies in order to enhance their academic achievement by first improving their study behaviour. This assumption is consistent with the view held by Awabil (2013) who posited that self-regulated learning strategies such as time management and note taking are able to influence study behaviour of students in the various public universities in Ghana, which in the long run have led to increase in their academic achievement. School counsellors should, therefore, endeavour to support students to acquire study skills and self-reinforcement skills through counselling interventions to help boost their study behaviour and academic performance in the long run.

The post-hoc comparisons, in relation to this study, further confirmed that though there were statistically significant differences between study skills and self-reinforcement counselling groups and control group on all the five dimensions of study behaviour, their effectiveness differed in terms of time management and reading and library use. Self-reinforcement counselling was more effective in enhancing time management and reading and library use of participants better than study skills counselling. This finding suggests that self-reinforcement counselling was relatively more effective in dealing with time management and reading and library use behaviours than study skills counselling. This outcome can possibly be explained using personality differences.

Personality factors could have made the groups to respond differently to the treatment (Awabil, 2013). In other words, personality differences may explain the different reactions of the experimental groups to consultation behaviour. The personality factor may have contributed to the groups responding differently to the treatment. This suggests that personality as a personal variable is interacting with environment and study behaviour. This view is consistent with Bandura's social cognitive theory which states among other things that human behaviour is determined by reciprocal causation of personal, environmental and behavioural factors. It would, however, be prudent for future studies to factor in or control the influence of personality differences.

Simon (2015) found that there was statistically significant effect between secondary school students exposed to study skills training and the control group (t=17.308, p=0.000). Also, there is significant effect of the study skills training between the treatment and control group on home work and assignment (t=4.577, p=0.000); there is significant effect of the study skills training between the treatment and control group on time allocation, reading and note taking, and study period procedures (t=13.999, p=0.000); and there is significant effect of the study skills training between the treatment and control group on concentration, written works, examinations and teacher consultation (t=18.374, p=0.000).

In terms of concentration, consultation, and note taking both therapies worked equally, there were no significant differences between self-reinforcement skills counselling and the control group on these three dimensions of study behaviour at post-test. This result could be so in the sense

that concentration and note taking are behaviours that are directly under the control of tutors when in class. That is to say, tutors control the behaviour of students by making sure they concentrate when they are in class, so the students may not necessarily need an external influence in order to concentrate.

Obviously, most tutors in the classroom would insist that students take notes on whatever they are being taught, so this could explain why differences did not exist between the two therapies. In terms of consultation, generally, examinations for students in the CoE are conducted by the Institute of Education of the University of Cape Coast, and as such most of the learning materials had already been written by the respective examiners for the various courses. Based on this, it may probably not be of essence for students to consult other materials for information, since questions are set purely based on the materials they have already been given.

Gender and Study Behaviour

To determine whether significant difference exists in the mean scores on study behaviour in terms of gender, two-way ANCOVA was performed and the result indicates that there is significant difference in mean score of both males and females in the experimental groups as compared to the counterparts in the control group. Similarly, there is a significant difference in the study behaviour between female participants in the control group and male participants in the study skills group.

Also, the result indicates a significant difference in the study behaviour between female participants in the control group and female participants in the self-reinforcement group. These results imply that both study skills and self-

reinforcement counselling groups differed from the control group. This could be explained from the fact that participants in the control had not received no rigorous intervention and for that matter, any little change in the experimental group would attain statistical significance. This finding agrees with a similar finding by Simon (2015) that both male and female participants in the experimental group experienced higher improvement in study behaviour than their counterparts in the control group.

In contrast, the simple effects result shows that there is no significant difference in the mean scores on study behaviour at post- test on the basis of gender. This means that the finding shows that both males and females in each of the treatment groups recorded no significant difference in improvement in post-test study behaviour scores. The implication is that students, irrespective of their gender, can equally benefit from either study skills counselling or self-reinforcement counselling. In other words, gender is not an obstacle to counselling on study behaviour, since neither of the male and female responded differently to the experiment. This result is in line with a study conducted by Awabil (2013) who found that males and females did not differ significantly in their post-test scores on study behaviour. Agi (2017) also found that effective group counselling and self-reinforcement intervention have same effects on study behaviour of students in selected universities in Nigeria. That is, gender had no effect on university students' study behaviour when they were subjected to group and self-reinforcement counselling interventions.

The current finding that gender has no statistically significant effect on students study behaviour when they were exposed to study skills and self-

reinforcement counselling interventions, however, is contrary to the findings of Simon (2015), Numan and Hasan (2017), Ohanaka and Ofuani (2010), and Ng and Freeman (2018). Simon's (2015) study investigated the effect of study skills training on poor study habits among senior secondary school students in Fagge, Kano State, Nigeria. The findings suggested that study skills counselling had more positive effects on males' study behaviour than females. Perhaps some of the males in the study of Simon had a higher level of motivation to receive counselling on study behaviour than the female and this led to the discovery of significant difference between them.

Furthermore, the finding is incongruent with that of Numan and Hasan who examined the effect of study behaviour on test anxiety and academic achievement of undergraduate students. Numan and Hasan concluded that girls have better study behaviour than boys, as a result, female undergraduate students have higher academic achievement than their male counterpart. Also, Ohanaka and Ofuani (2010) reported that males in the experimental groups experienced greater improvement in study behaviour than their female counterparts when they were exposed to reading and group counselling interventions. Ng and Freeman (2018) also examined the relationship of study behaviour to academic performance, and found that gender of students has no statistically significant impact on study behaviour and academic performance of students when they were exposed to counselling intervention.

Further, the finding that gender has no statistically significant effect on students' study behaviour when they were exposed to study skills and self-reinforcement counselling interventions was congruent with that of Ohanaka

and Ofuani (2010) who found that gender was not a significant determinant of respondents' study behaviour at post-test.

Age and Study Behaviour

In order to ascertain whether significant difference exists in the mean scores on study behaviour with regard to age, two-way ANCOVA was performed and the result revealed that, both study skills counselling and self-reinforcement counselling did not discriminate on the basis of age categories, hence, both therapies worked equally among CoE students within the various age groups. The results further indicated that at post-test in the study skills counselling groups, participants with ages 21 years and above had the highest mean score than 17 – 20 years. That is, they recorded a considerably higher improvement in study behaviour than those within the age range of 17 – 20 years with the control group.

The indication is that counselling therapies had more positive effects on participants with ages 21 years and above than those within the age range of 17 – 20 years. The reason for this finding could be that participants with ages 21 years and above responded better to study skills counselling on study behaviour than their counterparts who were within the age range of 17 – 20 years. This finding is in line with that of Abdullahi, Atsua, Amuda, and Ago, (2013) who found out that study behaviour tends to improve with age as indicated by the higher mean academic performance. In their study, the older students reported better study behaviour in time scheduling, concentration, note-taking and writing skills. Abdullahi et al. added that students whose ages were above 23 reported using deeper level study behaviour more often than younger students and that younger students adopted more of the superficial

level of study behaviour which correlates positively with lower academic performance.

On the contrary to the findings of the current study that both study skills and self-reinforcement counselling did not discriminate on the basis of age categories, the result obtained by Awabil (2013) indicated that at post-test in the study skills counselling group, participants with ages 18 – 21 years recorded a considerably higher improvement in study behaviour than those with age 22 years and above.

Therefore, to effectively address CoE students' poor study behaviour relating to time management, concentration, consultation note taking and reading and library use, the counsellor needs to organize an effective study skills and self-reinforcement counselling each semester for the students. These counselling interventions will provide systematic coordinated instructions and teaching on how to obtain greater access to learning materials and developing better study skills. These can be done in sessions with each session aimed at assisting students to identify the skill they wish to utilise. During such counselling or training sessions, the students will learn about time management and its value, teaching on making time table (schedule) for studying, how to concentrate, note taking and forming special notes and consult others when need arises. These are all pointer to effect study skills counselling on reducing poor study behaviour of CoE students.

Chapter Summary

The chapter presents results and discussion regarding the effects of study skills and self-reinforcement counselling on study behaviour of students in CoE in Ghana, focusing on Central and Western regions of Ghana. The results have been presented with associated explanations. With the help of tables, the study analysed and presented the data using both descriptive and inferential statistical tools. The results show that study skills and self-reinforcement counselling have statistically significant effects on study behaviour of students.

Similarly, study skills and self-reinforcement counselling interventions are able to help boost students' study behaviour with regard to the five dimensions: time management, concentration, consultation, note taking, and reading and library use. The results further show that gender and age of students have no statistically significant effect on study behaviour of students when they were exposed to study skills and self-reinforcement counselling. This shows that study skills and self-reinforcement counselling interventions design by the various CoE in Ghana should not be based on or influenced by students gender and age characteristics.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The chapter presents summary of the study, conclusions as well as recommendations. In addition to this, it gives implications for counselling and suggestions for further research.

Summary

Research literature provides evidence that good study behaviour leads to high academic achievement or performance. Over the years, significant number of students in the CoE in Ghana has been withdrawn for poor academic performance. This phenomenon has affected the completion rate of students in the colleges negatively, especially first year students. Although, poor study behaviour can be modified through counselling, as being done in some developed countries, in Ghana, there are no counselling intervention programme to enable students, particularly the first year students of the colleges know how to study.

This lacuna motivated the researcher to investigate the effects of study skills and self-reinforcement counselling on study behaviour of students in CoE in Central and Western Regions of Ghana. The study further ascertained the influence of students' gender and age on their study behaviour with regard to study skills and self-reinforcement counselling. In carrying out the study, an intervention/treatment programmes were designed for students using study skills and self-reinforcement counselling to improve study behaviour.

The study's epistemological and ontological orientations with regard to the pursuant of the virtues of reality and truth were based on the ideas of positivism paradigm. As a result, the study employed the quantitative approach. The design used for this study was quasi experimental design involving the pre-test-post-test control groups. With this design, both control group and experimental group were compared. This design was adopted because the study involved three groups: two treatment groups and one control group.

The target population for the study was all students of CoE in Central and Western regions of Ghana while the accessible population was all first year students of these Colleges. The total student population of first year students in these three colleges stand at 3,313 (EMIS, 2018). The sample size for the study was 60 first year students, which represents 1.8 percent of the study population. The 60 students were drawn specifically from Foso CoE and Komenda CoE of Central region as well as Wiawso CoE of Western region.

Foso CoE and Komenda CoE were selected purposively while Wiawso CoE was randomly selected using the lottery method of simple random sampling technique from the two mixed or CoE ducation colleges in the Western region as the control group. The sample size was equally distributed among the three colleges. That is, 20 students from each of the colleges were selected. The students were selected using simple random sampling procedure. The selected respondents were assigned to experimental and control groups based on their pre-test scores in each of the CoE for the study.

A group of 20 students each from the three CoE in Ghana was, therefore, considered manageable for the study skills and self-reinforcement

counselling interventions. Hence, this study required 60 students, 40 for experimental groups and 20 for control group. Here, 20 each were selected from males and females for the two experimental groups and 10 each for control group. That is for the experimental groups, 40 students (20 female and 20 male) were selected through the lottery method of simple random sampling technique. Pre-test scores were used as the baseline data to select members for the three groups.

The instrument used in the pretest-postest was a structured questionnaire which was an inventory on study behaviour, known as SBI. The Cronbach alpha reliability Co-Efficient obtained from the questionnaire was 0.84, which was deemed appropriate. The data collection procedure involved pre-intervention, intervention, and post-intervention stages. The actual counselling intervention took six weeks after which post-test scores were obtained from the groups. Data on the background characteristics of the respondents were first analysed using cross tabulation. Data regarding the stated hypotheses were analysed using mean, standard deviation, ANCOVA, and MANCOVA. The main findings that emerged from the study were as follows:

1. Study skills counselling and self-reinforcement counselling had significant effects on study behaviour as compared to the control group. It was further revealed that study skills counselling was more effective in improving study behaviours than self-reinforcement counselling;
2. With respect to the five dimensions of study behaviour, both study skills counselling and self-reinforcement counselling significantly enhanced students study behaviour on all the five dimensions (time management,

concentration, consultation, note taking, reading and library use) when compared with the control group. However, self-reinforcement counselling was more effective in enhancing time management and reading and library use of participants better than study skills counselling. In terms of concentration, consultation, and note taking both therapies equally worked.

3. It was further revealed that male and female participants did not respond differently to either study skills counselling or self-reinforcement counselling. This therefore, implies that the two counselling therapies worked equally for both males and females.
4. It was also revealed that both study skills counselling and self-reinforcement counselling do not discriminate on the basis of age categories, hence, both therapies worked equally among with different age groups.

Conclusions

Based on these findings, the conclusions therefore are that:

1. in counselling situations, involving CoE students with poor study behaviour, the two treatments are capable of improving or enhancing their study behaviour significantly.
2. study skills and self-reinforcement counselling are both effective at improving time management, concentration, consultation, note taking and reading and library use and can be used to enhance the study behaviour of students in the various CoE in Ghana. However, self-reinforcement counselling can be used in enhancing students with

ineffective time management and poor reading and library use better than study skills counselling.

3. gender and age characteristics of students do not determine or predict their study behaviour when they are exposed to study skills and self-reinforcement counselling interventions therefore irrespective of the gender and age bracket of the participants, they will all benefit from the two treatments.

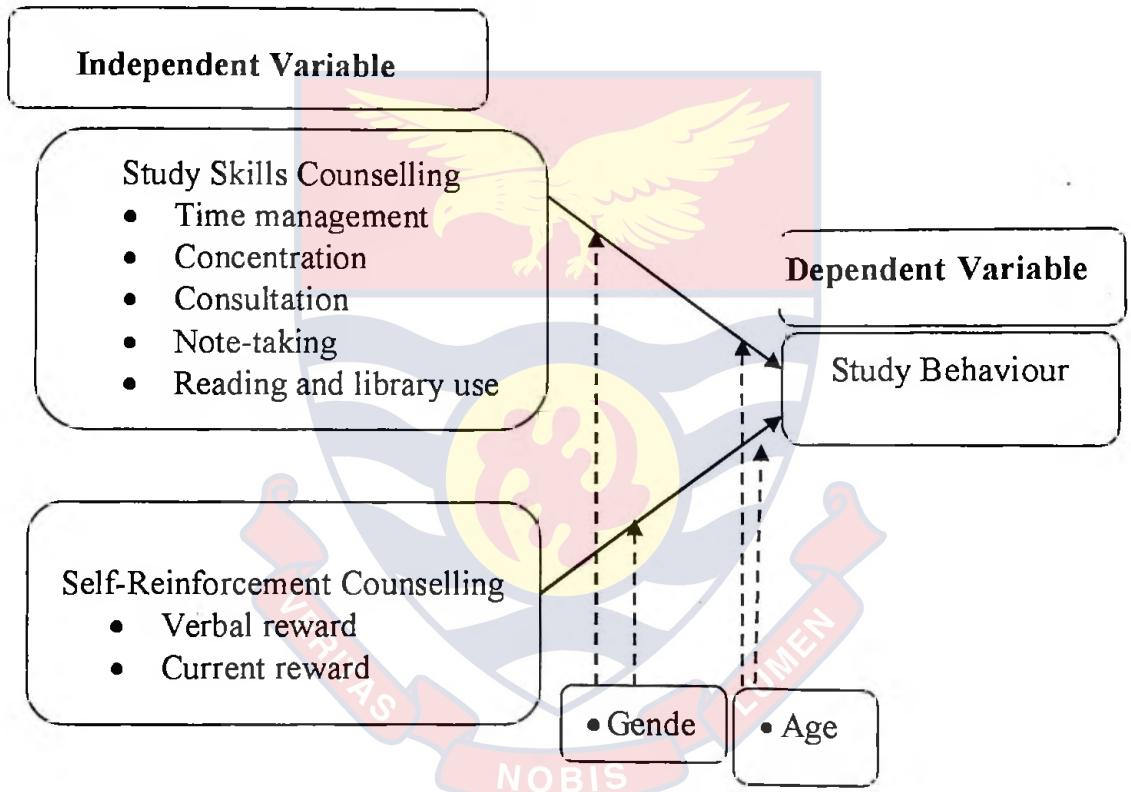

Figure 3: Final observed model

The study revealed that both study skills counselling and self-reinforcement counselling enhanced study behaviours of participants even though self-reinforcement counselling was found to be more effective in improving study behaviours than study skills counselling. Also, male and female participants did not respond differently to either study skills counselling or self-reinforcement counselling. Both study skills counselling techniques did not discriminate on the basis of age categories, hence both

therapies worked equally well among with different age groups. The final observed model as shown in Figure 3, indicate that counsellors can use both study skills counselling and self-reinforcement counselling in enhancing study behaviours of students in CoE in Ghana.

Recommendations

Based on the key findings and conclusions of the study, it was recommended to counselling coordinators and management of the various CoE in Ghana to ensure that:

1. Counsellors in the CoE use study skills counselling and self-reinforcement counselling interventions to help modify and improve the study behaviour of students on individual or group basis.
2. Academic advisors and hall tutors should be empowered by the unversity authorities through workshops and seminars to enable them utilise the knowledge on study skills counselling and self-reinforcement counselling to assist students at the hall and department levels to deal with poor study behaviour.
3. Counselling Units in the various CoE in Ghana should collaborate with theInstitute of Education, University of Cape Coast in:
   a. designing a study skills course for first year students. The skills to be taught should include those used for this study.
   b. writing books on study skills for students. The availability of books on study skills would reinforce learners develop good study behaviour
   c. organising workshops on study skills for lecturers to enable them integrate learning strategies into their lectures.

Implications for Counselling

1. Students who exhibit a low level of study behaviour do not have the willingness to learn new things, consider new ideas and have an open mind in general. Through counselling, students' confidence can be boosted to help them read from other sources for more information and ideas to enrich their understanding, and to enhance their study behaviour in general. Therefore, a student of the CoE in Ghana with low level of study behaviour can be assisted through study skills and self-reinforcement counselling to understand and appreciate his or her self and learning strategies. It can also enrich their academic performance and success in general.
2. Students with high level of study behaviour concentrate on a couple of academic goals and strive hard to achieve them in order to boost their success in academic. It will be prudent to encourage students to adopt or adapt appropriate study behaviour through counselling to help boost their academic performance. Students can also be encouraged through study skills counselling and self-reinforcement counselling to set up very high academic goals and strive hard to achieve them. The students can be guided to adopt appropriate time management, concentration, consultation, note taking, and reading and library use strategies that will help boost their study behaviour, and in the long run enhance their academic performance.
3. Through counselling, students can be motivated to follow instructions and to form study groups that will help them a lot in their academic work as they can have their study behaviours improved. Also, they can be assisted

through counselling to learn sharing ideas and educational materials with course mates and other friends to enrich their intellectual horizon.

4. For counselling implication, students can be assisted through counselling to help students concentrate more and improve their note taking skills. The students can again be helped to manage their time effectively and improve their reading and library usage. Assisting such students in this direction through counselling will go a long way to help them improve their study behaviour and also make good grades in examinations.
5. Students who are known to demonstrate effective usage of reading and library usage skills in their learning process are perceived to learn better. In other words, they have the ability to adopt appropriate and meaningful study behaviour in order to improve their academic performance. In line with this, students can be assisted through study skills counselling to have access to where very relevant books and other educational materials can be located in the library and the CoE in general.

Suggestions for Further Research

Firstly, the instrument used in this study may be used in the study of private CoE to broaden our understanding of the five dimensions of students' study behaviour. Similarly, the effects of study skills counselling and self-reinforcement counselling interventions on study behaviour of students can be replicated in the various senior high schools in Ghana to explore the issues from a more general perspective. This would greatly increase generalizability to other institutions and populations.

Further studies should be performed with the same research instrument as the current study, but this time using concurrent mixed methods design to

understand the issue of students' study behaviour from both the positivists and interpretivists perspectives. It would be prudent to compare basic, secondary and tertiary levels of education environments in terms of students' study behaviour and counselling support services.

Future studies could control for personality differences, since some personality traits are prone to some study behaviours. Study skills encompass a number of learning strategies. So, future studies should cover areas such as procedures in studying, assignment, written work and taking examinations. There is the need to assess the general academic needs of students, taking into consideration students' study behaviour and counselling interventions.

Research could be conducted to determine possible reasons for the non-differences in the study behaviour of students in terms of gender and age when they were exposed to the two counselling interventions. Also, further studies should be performed with the same research instrumentation as the current study, using programmes in the CoE to understand the effects of the various programmes on students' study behaviour.

Chapter Summary

The chapter presented an overview of the entire thesis work which focused on investigating the effects of study skills and self-reinforcement counselling on study behaviour of students in CoE in Central and Western regions of Ghana. This includes the purpose, and the research methods employed. It also summarised the key findings of the study, followed by the conclusions from the results discussed in the results and discussion section. The chapter also covered implications for counselling and recommendations. The chapter ended with suggestions for further research.

REFERENCES

Abdullahi, M. I. (2018). *Overcoming study behaviour problems counselling* perspectives (2nd ed.). Kano; Nigeria: Tunlad Prints and Publishing Company.

Abdullahi, O. E. (2014). Students' responsibility in poor academic performance in Kwara State Secondary Schools. *International Journal of Education and Psychology, 44*(1), 64-79.

Abdullahi, U., Atsua, T. G., Amuda, B. G., & Ago, H. A. (2013). Study habit counselling and academic performance of senior secondary school students in Maiduguri, Nigeria. *Journal of Research in National Development*, *11*(2), 36-42.

Adams, K. S., & Reaser, A. (2006). Study skills profiles of normal-achieving and academically-struggling college students. *Journal of College Student Development*, *47*(1), 37-51.

Addae-Mensah, I. (2006). *Education in Ghana: A tool for social mobility or social stratification*. Paper presented at the J. B. Danquah Memorial Lectures, Accra, Ghana, CSIR.

Adegbija, F. (2012). *Cultivating effective study habits in effective study skills and use of English* (3rd ed.). Ibadan; Nigeria: Unilorin Press.

Adisa, S. A. (2007). *Effectiveness of group guidance and bibliotherapy techniques in reducing study behaviour problems among undergraduates of Ahmadu Bello University*. (Unpublished doctoral thesis). Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, Nigeria.

Agi, W. C. (2017). Effects of group counselling and self-reinforcement on study behaviour of students in selected universities in Nigeria. *International Journal of Education and Evaluation, 3*(3), 1-7.

Akafa, R. N. (2011). *Effectiveness of study skills counselling in reducing study behaviour problems of secondary school students in Kaduna State*. Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, Nigeria.

Aluede, K., & Onolemhemhen, K. (2011). Effect of study habit counselling on the academic performance of secondary schools students in English language. *Journal of Educational Research, 39*(3), 17-26.

Amedahe, F. K., & Asamoah-Gyimah, K. (2016). *Introduction to educational research*. Cape Coast, Ghana: Centre for Continuing Education, University of Cape Coast, Ghana.

Anameze, L. M. (2017). Study habits modification programme for Nigerian adolescent students in the new millennium. In R. U. N. Okonkwo & R. O. Okoye. (Eds.), *The Nigerian adolescent in perspective,* (pp. 123-131). Lagos; Nigeria: Onwuka and Sons Publishers.

Anane, E. (2014). *Pre-service teachers' motivational orientations and the effects of self-regulated learning on their academic achievement: A mixed method study.* Retrieved from http://etheses.dur. ac.uk/10985/

Anwar, M. (2013). *Keeping students in higher education: Successful practices and strategies for retention*. Retrieved from https://books.google.com/books?hl=en&lr=&id=NrU97LssJagC&oi=fnd&pg=PP11&dq=Anwar+(2013)+study+skills+and+academic+performance&ots=GmsxiOUJqf&sig=VcTQXKgvuLCAGxAPylYPFl8js5c

Armstrong, W. J. (2014). *The role of skills and study behaviours in students of colour who traditionally have low admissions rates to University of California*. (Unpublished doctoral thesis). Faculty of Education, California State University, Sacramento.

Ary, D., Jacobs, L. C., Sorensen, C., & Razavich, A. (2010). *Introduction to research in education* (8th ed.). Belmont; C A: Wadsworth, Cengage Learning.

Ashton, P. T., & Webb, R. B. (2014). *Making a difference: Teachers' sense of efficacy and student achievement* (2nd ed.). White Plains, NY: Longman, Inc.

Atsiayasiahi, E., & Maiyo, J. K. (2015). Study of the relationship between study habits and academic achievement of students: A case of Spicer Higher Secondary School, India. *International Journal of Educational Administration and Policy Studies, 7*(7), 134-141.

Awabil, G. (2007). Guidance needs of senior secondary school students in the Bulsa and Kassena-Nankana District, Upper East Region of Ghana. *Journal of Counselling, Education and Psychology, 1*(1), 86-87.

Awabil, G. (2013). *Effects of study and self-reward skills counselling on study behaviour of students in Ghanaian public universities*. (Unpublished doctoral dissertation). Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, Nigeria.

Awabil, G. (2016). *Introduction to study skills for students in higher education*. Accra, Ghana: Adwinsa Publication (GH) Ltd.

Awabil, G., Kolo, D. F., Bello, M. R., & Oliagba, A. D. (2013). Effects of study and self-reward skills counselling on study behaviour of university students in Ghana. *The Counsellor, 32*(182), 39-46.

Ayodele, C. S., & Adebiyi, D. R. (2013). Study habits as influence of academic performance of university undergraduates in Nigeria. *Research Journal in Organisational Psychology and Educational Studies*, *2*(3), 72-75.

Babbie, E. (2013). *The practice of social research* (13th ed.). New York; NY: Cengage Learning.

Bailey, T. (2014). *The role and functions of higher education councils and commissions in Africa: A case study of the Ghana National Council for Tertiary Education*. Centre for Higher Education Transformation (CHET), South Africa.

Bakhani, P. M. (2014). *Introduction to social psychology*. New Delhi; India: Free Press.

Bandura, A. (1976). Self-reinforcement: Theoretical and methodological considerations. *Behaviourism*, *4*(2), 135-155.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development: Six theories of child development* (pp. 01-60). Greenwich, CT: JAI Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York; NY: Macmillan.

Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of Personality and Social Psychology, 45*, 1017-1028.

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41*, 586-598.

Barki, B. G., & Mukhopadhyay, B. (2014). *Guidance and counselling: A manual* (11th ed.). New Delhi; India: Sterling Publisher's Private Limited.

Baron, A., & Galizio, M. (2015). Positive and negative reinforcement: Should the distinction be preserved? *The Behaviour Analyst, 38*(1), 14-27.

Bashir, I., & Mattoo, N. H. (2012). A study on study habits and academic performance among adolescents (14-19) years. *International Journal of Social Science Tomorrow, 1*(5), 1-5.

Baum, S., & Ma, J. (2007). *Education pays 2007: The benefits of higher education for individuals and society*. New York; NY: The College Board.

Belle, D., Colette, L., & Ellemers, N. (2009). Working for the self or working for the group: How self-versus group affirmation affects collective behaviour in low-status groups. *Journal of Personality and Social Psychology*, *96*(1), 183-192.

Bernard, H. W. (2013). *Psychology of learning and teaching* (3rd ed.). New York; NY: McGraw-Hill Book Company.

Best, J. W. & Kahn, J. V. (2012). *Research in education* (12th ed.). London; UK: Allyn and Bacon.

Biggs, J. B. (2014). *Student approaches to learning and studying* (2nd ed.). Victoria: Australian Council for Educational Research.

Bliss, L. B. (2014). *An instrument for the assessment of study behaviours of high school students* (2nd ed.). New York; NY: Free Press.

Bliss, L. B., & Mueller, R. J. (2017). Assessing study behaviours of college students: Findings from a new instrument. *Journal of Developmental Education*, *41*(2), 14-18.

Brown, C., Brown, U. J., Beale, R. L., & Gould, J. K. (2014). Factors influencing academic success and self-esteem among Diverse College students. *International Journal of Education Research, 9*(1), 1-14.

Bryman, A. (2012). *Social research method* (3rd ed.). New York; NY: Oxford University Press.

Buockerign, P. A. (2015). The influence of models in boosting students' learning behaviour and academic performance. *International Journal of Educational Research, 43*(2), 619-627.

Carey, J. C., Carey, D., Hatch, T. A., Lapan, R. T., & Whiston, S. C. (2016). Report of the national panel for evidence-based school counselling: Outcome research coding protocol and evaluation of student success skills and second step. *Professional School Counselling, 21*(3), 197-206.

Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2015). *Qualitative marketing research* (3rd ed.). London; UK: Sage.

Chauhan, S. S. (2015). *Advanced educational psychology* (8th ed.). Shalhibad; India: Vikas Publishing House PVT Ltd.

Chen, C. P. (2006). Strengthening career human agency. *Journal of Counselling and Development, 84*(2), 131-138.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). New York; NY: Routledge Falmer.

Corey, G. (2012). *Theory and practice of counselling and psychotherapy* (9th ed.). Belmont; CA: Free Press.

Coy, D. R. (2014). *Developmental guidance and counselling in today's schools* (2nd ed.). Alexandria, VA: National Association of Secondary Schools.

Credé, M., & Kuncel, N. R. (2008). Study habits, skills, and attitudes: The third pillar supporting collegiate academic performance. *Perspectives on Psychological Science, 3*(6), 425-453.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2015). *Qualitative inquiry and research design* (5th ed.). London; UK: Sage Publication, Inc.

Dacre, P. L., & Qualter, P. (2012). Improving emotional intelligence and emotional self-efficacy through a teaching intervention for university students. *Learning and Individual Differences, 22*, 306-312.

Dehghani, P., & Soltanalgharaei, K. (2014). Relationship of study skills and examination preparation method in master students. *Education Strategies in Medical Sciences, 7*(1), 51-56.

Denga, D. J. (2013). *The school counsellor in a developing nation problems and prospect* (3rd ed.). Savannah, GA: Savannah Publishers Ltd.

Denga, D. I. (2017). *Educational and social psychology* (2nd ed.). Calabar, Nigeria: Rapid Educational Publishers Ltd.

Duff, A., Boyle, E., Dunleavy, K., & Ferguson, J. (2017). The relationship between personality approach to learning and academic performance. *Personality and Individual Differences, 45*(3), 177-192.

Education Management Information System (EMIS). (2018). *Project report on basic statistics and planning parameters for colleges of education in Ghana 2017/2018.* (Unpublished report). Ministry of Education, Accra-Ghana.

Egbo, A. C. (2015). The effect of study habit counselling on academic achievement of probated students of Enugu State College of Education Technical Enugu, Enugu State, Nigeria. *International Journal of Recent Scientific, 6*(7), 5527-5531.

Egbule, J. F. (2009). *A-12 point agenda for a successful corporate undergraduate and a well-adjusted graduate.* Benin City; Nigeria: Justice Jeco Press and Publisher Ltd.

Emievil, P. (2013). *Bad study habits a college student must not have.* Retrieved from emievil.hubpages.com/hub/

Essuman, J. K. (2006). *Study habit survey for SHS: Form B.* (Unpublished inventory). Counselling Centre, University of Cape Coast, Cape Coast - Ghana.

European Union. (2012). *European Union report on education.* Vienna ; Austria: EU.

Faber, A. B. (2015). *Assessment of the guidance and counselling needs of at-risk students in an alternative school.* (Unpublished masters' dissertation). Depart of Guidance and Counselling, School of Education, University of Wisconsin, Wisconsin, Stout.

Freeman, U. S., & Morss, J. (2016). Study habits and academic achievement among Asian students. *College Student Journal, 36*(4), 352-355.

Gbore, L. O. (2012). *Cognitive entry characteristics study habits and self-concept as predictor of academic performance of university undergraduate students in South West Nigeria.* (Unpublished doctoral thesis). University of Ado-Ekiti, Ekiti.

Gettinger, M., & Seibert, J. K. (2002). Contributions of study skills to academic competence. *School Psychology Review, 31*(3), 350-365.

Ghosh, S. (2012). The effects of counselling on the study habits and achievement of the teacher trainees. *Indian Journal of Applied Psychology, 39*(2), 85-91.

Gibson, R. L., & Mitchel, M. H. (2013). *Introduction to counselling and guidance* (8th ed.). New York, NY: Macmillan Publishing Company.

Gordon, W. (2014). Module seven, adolescent reproduction health. In J. Allen (Ed.), *Regional training seminar on guidance and counselling* (pp. 12-17). Paris, France: UNESCO.

Government of Ghana (GoG). (2004). *Anamuah-Mensah committee report of 2002: Meeting the challenges of education in the twenty first century.* Accra; Ghana: GoG.

Gravetter, F. J., & Forzano, L. B. (2015). *Research methods for the behavioural sciences* (4th ed.). Belmont; CA: Thomson Wadsworth.

Hashemian, A., & Hashemian, A. (2014). Prevalence of internet addiction among university students in Ilam: A cross-sectional study. *International Journal of Epidemiologic Research, 1*(1), 9-15.

Hazard, L. L., & Nadeau, J. J. (2016). *Student' study skills, behaviour and success*. Boston; MA: Pearson Custom Publishing.

Hussain, A. (2016). Effect of guidance services on study attitudes, *study habit and academic achievement of secondary school students*. *International Journal of Social Sciences and Humanities, 21*(3), 1-9.

Institute of Education, University of Cape Coast (IoE, UCC). (2016). *Professional Board Report of Institute of Education, University of Cape Coast*. Cape Coast; Ghana: IoE, UCC.

Institute of Education, University of Cape Coast (IoE, UCC). (2017). *Statistics report on students' enrolment and performance: 2016/2017 academic year*. Cape Coast; Ghana:: IoE, UCC.

Institute of Education, University of Cape Coast (IoE, UCC). (2018). *Statistics report on students' enrolment and performance: 2016/2017 academic year*. Cape Coast; Ghana: IoE, UCC.

Jacobson, K. R. (2018). *The relationship of individual student time allocation to reading and mathematics achievement*. (Unpublished doctoral dissertation). University of Wisconsin, Wisconsin.

Jones, C. H., & Slate, J. R. (2018). Graduate students' study skills as a function of academic achievement, sex, conceptions of intelligence, and locus of control. *IUCG Journal of Humanity and Social Sciences, 3*(1), 13-29.

Kabate, M. J. (2016). Counselling services for students sustainability in open and distance learning system: A case of Ilala regional centre of the open university of Tanzania. *European Journal of Alternative Education Studies*, *1*(2) 55-67.

Kagu, B. (2001). Developing effective study habits through counselling among Nigeria students: A remedy for mass-failure and examination malpractices. *Ahmadu Bello University Journal of Counselling and Human Development*, *1*(1) 103-109.

Kagu, B. (2004). Effect of group counselling on learning and remembering strategies of diploma students at the University of Maiduguri. International *Journal of Guidance and Counselling*, *23*(1), 137-143.

Kangai, C., Rupande, G., & Rugonye, S. (2017). Students' perceptions on the quality and effectiveness of guidance and counselling services at the Zimbabwe Open University. *The African Symposium: An Online Journal of the African Educational Research Network*, *18*(2), 12-32.

Kehinde, I. A. J. (2011). *Effectiveness of study skills training in minimising poor study habits among secondary school students in Sabon Gari local government area of Kaduna State*. (Unpublished master's thesis). Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria.

Kemjika, O. G. (2018). Relationship between study habits and student achievement among secondary school students in Rivers State. *International Journal of Professional Studies*, *22*(1), 17-28.

Kerka, S. (2017). *What works, study skills*. Retrieved December 21, 2018, from http://jfs.ohio.gov.owd/workforce/youth/Docs/studyskills.pdf

Khan, S. B. (2016). Structure of academic attitudes and study habits. *Educational and Psychological Measurements, 18*(1), 835-842.

Kumar, A. (2012). A study of Indian Open University distance learners' academic self-concept, study habits and attitudes towards distance education in relation to their academic performance. *Journal of Counselling and Development, 72*(2), 181-188.

Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners* (4th ed.). London: Sage.

Lee, J. C., & Klugman, J. (2013). Latino school concentration and academic performance among Latino Children. *Social Science Quarterly, 94*, 977-1015.

Lent, R. W., & Hackett, G. (2017). Career self-efficacy: Empirical status and future directions. *Journal of Vocational Behaviour, 60*(1), 347-382.

Light, L. L., & Alexakos, C. E. (2017). The role of individual and group counselling on study habits. *The Journal of Educational Research, 110*(2), 14-29.

Lunenbury, F. C. (2017). School guidance and counselling services at Sam Houston State University. *Schooling, 8*(1), 1-7.

Makarfi, M. S. (2002). *The effect of subject study procedure counselling on the academic performance of secondary school students in Zaria Metropolis*. (Unpublished master's thesis). Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, Nigeria.

Makinde, O. (2013). *Fundamentals of guidance and counselling* (2nd ed.). London; UK: Macmillan Publishing Company.

Margolis, H. & McCabe, P. P. (2016). Motivating struggling readers in an era of mandated instructional practices. *Reading Psychology*, *37*(5), 435-455.

McEachern, A. (2013). *School counsellor preparation to meet the guidance needs of exceptional students: A national study* (2nd ed.). Benin City; Nigeria: Ethiope Publishing Corporation.

McWilliam, H. O. A., & Kwamena-Poh, M. A. (1975). *The development of education in Ghana: An outline*. London; UK: Longman Group Ltd.

Mertes, A. P. (2015). *The effect of a study strategy group on self-efficacy*. (Unpublished doctoral thesis). Department of Community Psychology, St. Cloud State University, St. Cloud State.

Milledzi, E. Y., & Saani, A-J. (2018). *Development of education in Ghana: Course model for post-graduate diploma in education*. Cape Coast; Ghana: College of Distance Education, University of Cape Coast.

Miller, J. C. (2012). *Tutoring: The guidance and counselling role of the tutor in vocational preparation* (2nd ed.). Hertford; UK: NICEC.

Musika, F., & Bukaliya, R. (2015). The Effectiveness of counselling on students` learning motivation in open and distance education. *International Journal of Research in Humanities and Social Studies*, *2*(7), 85-99.

Muthoni, K. L. (2013). *Relationship between family background and academic performance of secondary schools students: A case of Siakago Division, Mbeere North District, Kenya*. (Unpublished master's thesis). Department of Education and Psychology, Faculty of Education Studies, University of Nairobi, Nairobi.

Myrick, R. D. (2013). *Developmental guidance and counselling: A practical approach* (5th ed.). Minneapolis, MN: Educational media.

Nadinloyi, K. B., Hajloo, N., Garamaleki, N. S., & Sadeghi, H. (2013). *The study efficacy of time management training on increase academic time management of students*. Nicosia; Cyprus: Elsevier Ltd.

Nagaraju, M. T. V. (2004). *Study habits of secondary school students*. New York; NY: Discovery Publishing House.

National Development Planning Commission (NDPC). (2018). *Annual progress report for 2017 on human resource development and indicators.* Accra; Ghana: NDPC.

Neukrug, E. (2017). *The world of the counsellor: An introduction to the counselling profession* (2nd ed.). New York; NY: USA: Brooks/Cole Publishing Company.

Ng, T. W. H., & Freeman, P. G. (2018). The relationship of study behaviour to academic performance. *Journal of Applied Psychology, 103*(2), 392-423.

Nkrumah, K. (2014). *Impact of the University of Cape Coast distance learning programme on the professional development of basic school teachers in the Kumasi metropolis in the Ashanti Region, Ghana*. (Unpublished master's thesis). Department of Arts and Social Sciences Education, Faculty of Education, University of Cape Coast, Cape Coast.

Numan, P., & Hasan, S. (2017). Effect of study behaviour on test anxiety and academic achievement of undergraduate students. *International Journal of Education and Psychology, 23*(2), 11-29.

Nwani, Z. O. (2016). *Study habits and performance* (5th ed.). London; UK: Evans Brothers Ltd.

Odeleye, D. A. (2017). Overview of school guidance and counselling services. *European Journal of Education Studies, 3*(7), 346-361.

Ogbodo, R. O. (2010). *Effective study habits in educational sector: Counselling implications*. Abuja; Nigeria Ohanya Publisher Limited.

Ogbodo, R. O. (2015). *Hints on effective reading habits and examination guide to students* (2nd ed.). Abuja; Nigeria: Ohanya Publisher Ltd.

Ogunmakin, A. O. (2016). The effects of study habits and academic achievement in mathematics. *Educational Thought, 17*(2), 167-175.

Ohanaka, B. I., & Ofuani, F. N. (2010). Age and gender differences in enhancing senior secondary school students' study habits through reading and group counselling. *Creative Education, 117*(3), 45-56.

Ohene, J. (2010). *Achieving self-esteem: Guidelines for students* (2nd ed.). Cape Coast; Ghana: University Press.

Okobiah, O. C., & Okorodudu, R. I, (2014). *Concepts of guidance and counselling. In issues, concepts, theories and techniques of guidance and counselling* (2nd ed.). Benin City; Nigeria: Ethiope Publishing Corporation.

Owusu-Boateng, W., Acheampong, F., & Oteng, A. E. (2015). The effect of school dropout on the lives of the youth in Akim Tafo community. *Global Educational Research Journal, 3*(10), 346-369.

Palani, K. K. (2012). Promising reading habits and creating literate social. *International Reference Research Journal, 3*(1), 91-99.

Pallant, J. (2010). *SPSS survival manual* (4th ed.). New York, NY: McGraw-Hill.

Parcover, J. A., Dunton, E. C., Gehlert, K. M., & Mitchell, S. L. (2016). Getting the most from group counselling in college counselling centres. *The Journal for Specialists in Group Work, 41*(2), 56-68.

Patten, M. L., & Newhart, M. (2017). Understanding research methods: An overview of the essentials. Routledge.

Pietrofesa, J. J., Beinstern, B. M. J., & Stanford, S. (2015). *Guidance: An introduction* (2nd ed.). Chicago; IL: McNelly College Publishing Company.

Plant, E. A., Ericsson, K. A., Hill, L., & Asberg, K. (2015). The influence of study time and study habits on grade point average across college students: Implications of deliberate practice for academic performance. *Contemporary Educational Psychology, 40*, 96-116.

Reilly, E. J. (2014). *Self-modification of college students' study behaviour via a learning acceleration tape treatment programme* (Electronic version). (Unpublished doctoral dissertation). Department of Psychology and Education, College of Education Studies, University of Florida, Florida.

Richardson, M. S. (2016). *Counselling for work and relationship: A practice-driven theoretical approach*. New York; NY: University Press.

Rumfola, L. (2017). *Positive reinforcement positively helps students in the classroom* (Electronic version). (Unpublished master's thesis). Department of Education, College of Brockport, State University of

New York, New York. Retrieved from http://digitalcommons. brockport. edu /ehd_theses/786

Schmidt, J. (2014). *Counselling in schools: Essential services and comprehensive programme* (6th ed.). Needham Heights, MA: Allyn and Bacon, USA.

Schunk, D. H., & Miller, S. D. (2012). Self-efficacy and adolescents' motivation. In F. Pajares, & T. Urdan (Eds.), *Academic motivation of adolescents* (pp. 29-52). Greenwich, CT: Information Age Publishing, Inc.

Sharma, K. L. (2012). Rational group counselling with anxious underachievers (Electronic version). *Canadian Journal of Counselling and Psychotherapy, 9*(2), 12-32. Retrieved from http://cjcp.journalhosting.ucalgary.ca/cjc/index.php/rcc/article/view/1691

Sherafat, R., & Murthy, C. V. (2016). A study of study habits and academic achievement among secondary and senior secondary school students of Mysore City. *The International Journal of Indian Psychology*, *3*(2), 161-170.

Shertzer, B., & Stone, S. C. (2014). *Fundamentals of guidance* (5th ed.). Boston; MA: Houghton Mifflin Company.

Silverman, D. (2015). *Interpreting qualitative data*. Sage.

Simon, M. O. (2015). *Effect of study skills training on poor study habits among senior secondary school students in Fagge, Kano State, Nigeria*. Unpublished master's thesis, Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, Nigeria.

Telford, C. W., & Sawrey, J. M. (2016). *Educational psychology* (5th ed.). New Delhi; Indid: Prentice Hall of India Ltd.

Tollefson, N. (2017). *Study behaviour and academic achievement*. Washington, DC: Oak Press.

Tope, O. (2015). The effects of study habit on the academic performance of students: A case study of some secondary schools in Ogun State. *International Journal of Education and Psychology, 34*(3), 23-37.

Unachukwu, G. C., & Igborgbor, G. C. (2013). *Guidance and counselling: A realistic approach* (2nd ed.). Owerri; Nigeria: International University Press.

Urciuoli, J. A., & Bluestone, C. (2013). Study skills analysis: A pilot study linking a success and psychology course. *Community College Journal of Research and Practice*, *37*(5), 397-401.

Wambu, G. W., & Fisher, T. A. (2015). School guidance and counselling in Kenya: Historical development, current status, and future prospects. *Journal of Education and Practice, 6*(11), 93-102.

Webb, L., Brigman, G. A., & Campbell, C. (2017). Linking school counsellors and student success: A replication of the student success skills approach targeting the academic social competence of students. *Professional School Counselling, 20*(5), 407-413.

Weiner, F. (2013). Influence of study habits on academic performance. In B. Calderon, (Ed.), *A study of students' failure in the public secondary schools of Manila,* (pp. 121-172). Quezon City, Philippines: U. P. College of Education.

Wendson, P. (2014). Behaviour modification theory. Proceedings of 2014 IEA *International Symposium*. Retrieved from http://ieaexplore.iea .org/document/572037/

Wernersbach, B. M. (2017). *Effect of counselling on study behaviour of undergraduate students*. Unpublished master's thesis, Department of Psychology, School of Graduate Studies, Utah State University, Logan, Utah.

Wheeler, V. A., & Ladd, G. W. (2012). Assessment of children's self-efficacy for social interactions with peers. *Developmental Psychology, 48*, 795-805.

Wunnia, L. K. (2017). *Cognitive entry characteristics of study habits and self-concept as predictor of senior high school students' academic performance in the Gomoa West District*. (Unpublished master's dissertation). Department of Education and Psychology, Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, Cape Coast.

Wunpini, L. P. (2015). *An assessment of the challenges facing counsellors in Senior High schools in the Tamale Metropolis, Northern Region of Ghana*. (Unpublished master's thesis). Department of Psychology and Education, University of Education, Winneba.

Yahaya, L. A. (2016). Influence of study habits on attitudes of secondary school students towards examination malpractice in Kwara State. *International Journal of Education and Psychology, 12*(3), 17-34.

Yahaulalah, Y. (2016). *Introduction to modern psychology*. New Delhi; India: Oak Press.

Yates, S. J. (2014). *Doing social science research* (2nd ed). London; UK: Sage Publications Ltd.

Yoloye, T. W. (2014). Improving students' performance in science: The role of counselling coordinators. *International Journal of Counselling and Psychology, 12*(1), 113-127.

Zakaria, S. P. (2016). *An evaluation of guidance and counselling services in secondary schools in the Upper West Region of Ghana*. (Unpublished master's thesis). Department of Psychology and Education, University of Education, Winneba.

Zikmund, W. G. (2015). *Business research methods* (9th ed.). Mason, OH: South-Western Cengage Learning.

Zimmerman, B. J. (2013). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 52*(2), 663-676.

Zulkosky, K. (2009). *Self-efficacy: A concept analysis*. Retrieved from http://onlinelibrary.wiley.com/doi/1/j.1798.2009.132.x/full.

APPENDICES

APPENDIX A

QUESTIONNAIRE FOR RESPONDENTS

UNIVERSITY OF CAPE COAST

COE STUDIES

FACULTY OF EDUCATIONAL FOUNDATIONS

DEPARTMENT OF GUIDANCE AND COUNSELING

TOPIC: Effects of Study Skills and Self-Reinforcement Counselling on Study Behaviour of Students in CoE in Central and Western Regions of Ghana

Dear Respondent,

This questionnaire has been designed to solicit information for a research work being undertaken on the above topic. The first year students have been selected as a unit of analysis. You have been selected as one of the respondents. It is completely voluntary; however your co-operation and opinions are very important to the success of the study and will be kept strictly confidential. Please kindly respond to the questionnaire by filling in as appropriate.is to investigate students' study behaviour. You are kindly requested to read through the items one after the other and respond to them accordingly and objectively. Your responses will be treated as confidential and solely for the purpose of this research work.

The information given through this questionnaire is purely for academic purpose, but the recommendation may be beneficial to you and your

institution. Should you have any question concerning the administration of the questionnaire, please feel free to contact the researcher on this phone number (0244621461). I look forward to your participation and appreciate your support in this important effort. Please do not indicate your name on the questionnaire.

Consent to be a Participant in Research

I understand that any information I share will remain confidential and that when the results of the research are published or discussed in conferences, no information will be included that would reveal my identity. By agreeing to participate in this survey and submit a response to the researcher in question, I am giving my consent to participate in the study.

I consent to being a participant in research: Yes [ ] No [ ]

SECTION A: Background Characteristics of Respondents

Please tick [√] or provide response to the questions which follows: No.....

1. Age of respondent (in years): 17-20 [ ] 20+ [ ]

2. Gender of respondent: Male [ ] Female [ ]

3. College of respondent .....

4. Programme ..... Date:.....

SECTION B: Study Behaviour of Students

In this section, please indicate your agreement to the following statements in relation to your study behaviour. Study behaviour was made up of five (5) dimensions. Each dimension contributes greatly to finding out the extent of goodness of your way of studying. There are eight (8) items for each dimension of your study behaviour. Please in filling the inventory, read each item first. Make sure you understand. Responses to the items are measured numerically using a unilinear scale. Indicate by a tick (√), your response to the items. Note that one (1) represents the strongly disagreement to the items while five (5) represents the strongly agreement to the items.

Statements on Time Management	1	2	3	4	5
1. I spend much more time reading the course I like and very little time for other courses					
2. I hate studying courses I find I difficult					
3. I do not give enough time to study my major courses					
4. I am not able to study up to three hours a day					
5. The courses I dislike, do not receive much of my study time					
6. I do not follow strictly my personal timetable when I am studying					
7. Even though my desire is to study on my own constantly, I find it difficult to do so					
8. Within a week, I study other courses far more than my major courses					
Statements on Concentration	**1**	**2**	**3**	**4**	**5**
1. Whenever I read, I am unable to bring all my attention on the subject					
2. The place I do my private place studies is noisy most often. This disturbs my concentration					
3. I am easily attracted to viewing TV or to looking through a comic magazine while reading					
4. When my mind begins to wander, while studying, I find it difficult to bring it back to the subject.					
5. I am unable to read for more than fifteen minutes at a time.					
6. When I am studying, I tend to stop and worry about personal problems					
7. I am fond of day dreaming during my studies					
8. Whenever I take a book to read, I doze off (sleep off)					

Statements on Consultation	1	2	3	4	5
1. When I do not understand a lesson, I find it difficult to ask the lecturer to explain					
2. I am not used to calling my friends together to solve difficult problems which need calculation (e.g. statistics)					
3. I do not like asking lecturers questions					
4. I prefer finding answers from books to receiving them from friends					
5. I often rely on my lecture notes without consulting mates, lecturers or books for further ideas					
6. I do not have a study group					
7. I do not ask my friends to explain a difficult point to me					
8. I do not feel comfortable asking friends to teach me something					
Statements on Note Taking	**1**	**2**	**3**	**4**	**5**
1. When I read I do not underline or take note of words (and phrases) which are important to me.					
2. When a good point comes into my mind while reading, I fail to note it down.					
3. During lecturers I just listen, I do not take down notes or tape record.					
4. I often do not copy the worked examples of mathematics, physics, chemistry or statistics etc. the lecturer puts on the board.					
5. I do not make personal notes when I read from a textbook					
6. If the lecturer does not give notes as he/she lectures, I find it difficult to note down important points					
7. I do not bother to copy notes from a friend when I am absent from a lecture.					
8. I do not read over my notes after lectures.					

Statements on Reading and Library Use	1	2	3	4	5
1. I find it difficult to remember what I read					
2. I do not glance (look) through a chapter of a book before I begin to read it					
3. I usually find it difficult to get the main ideas from a passage I read					
4. I tend to read a passage two or three times before understanding it somewhat					
5. I am not in the habit of looking for a book in the library to help me do my assignment					
6. I am not used to going to the school or town library to read or borrow books					
7. I do not like much reading, it is boring to me					
8. If I happen to borrow a book from the library I often do not read much of it					

GOOD LUCK

MANUAL

Introduction

Study skills counselling is a procedure which exposes students to effective study strategies or methods in order to facilitate the development of good study behaviour without any form of reward (Awabil, 2016).

Session 1: Establishing the Relationship: This session will cover self-introduction, statement of treatment goal and discussions of counsellor's and participants' responsibilities during counselling. The goal this treatment is to enable participants to acquire good study behaviour after going through the sessions. It is the responsibility of the participants to pay attention and actively take part in the discussions. Ground rules will be set to guide group interaction and the election of group leaders.

Session 2: Nature, Purpose and Types of Study Skills: The aim of this section will be to explain concept of study skills and its importance. The types of study skills such as time management, note-taking and concentration strategies will also be outlined.

Nature of Study Skills

Study skills are learning strategies that help students organise, process and use information effectively. The following are also definitions of study skills:

1. Study skills are processes of meta-cognition, which is self-awareness of one's thinking and learning. Learners who are able to step back and monitor their thinking and learning are able to use strategies for finding out or figuring out what they need to do.

2. Study skills are learning strategies that facilitate the processing of information. Study skills help us to organise and process information. They also help us to remember what we have learned. They work best when we are conscious of our learning processes.

Purpose of Study Skills

1. Study skills are important not just for academic learning, but also for everyday life. They can help individuals to be organised and successful life-long learners and effectively manage their jobs, households and finances.
2. Study skills can be especially critical for students with learning disabilities, who may have difficulty staying focused and are discouraged by lack of success.
3. When students attribute failure to internal factors, such as lack of ability, or external factors, such as bad luck, their self-confidence suffers and they see their efforts as futile. Mastering the skills for studying and learning increases their self-efficacy and empowers them to change their approach and use different strategies if one fails.

Types of study skills

The most important types of study skills that students need to acquire in order to achieve good academic performance include:

1. Time management skills
2. Concentration strategies
3. Consultation/help-seeking strategies
4. Note-taking methods
5. Library use skills

Session 3: Time Management Skills: The major issues to be stated and discussed are the meaning and purpose of time management, as well as the skills involved in managing time effectively. The skills will include the preparation of semester, weekly and daily schedules. The making of personal timetables should also be examined. Samples of time management schedules will also be presented and discussed. Participants will be given assignments on the making of a personal timetable.

Time Management Skills

Time management entails setting and following a schedule of study in order to organise and prioritise one's studies in the context of competing activities of work, family and so on (Awabil, 2016).

Purpose of Time Management Skills

1. It is a key to academic survival and success in the classroom
2. It is efficient use of time outside the classroom
3. Time management is a skill that few people master, but it is the one that most people need
4. Developing time management skills is a journey that needs practice and guidance.

Effective ways of managing time.

1. Be sure to plan and organise
2. Plan for a suitable place to study
3. Learn to avoid procrastination

Each of these suggestions is described subsequently.

1. Plan and Organise

Essentially, planning refers to setting academic goals that the individual intends to meet. The best way to do this is to create schedules. A three-tier time management system for tertiary students has been cited by Hazard and Nadeau (2006) which deals with creating: (i) the semester schedule, (ii) the weekly schedule and (iii) the daily schedule.

i) Creating a Semester Schedule: A semester schedule is a form of calendar that shows the 15-week time span of the semester. Using this calendar, record due dates for papers, projects, and presentations, and enter midterm and final examination information next to the appropriate dates and times. The next thing the student is supposed to do is to establish deadlines for finishing each one, and enter the dates on his or her calendar. The key is to be as specific as possible and generous with one's time allotments.

ii) Creating a Weekly Schedule: This involves writing in fixed commitments, such as classes, laboratory and other important activities. The student is then required to list times for life support which include eating, sleeping, grooming and transportation. Next, the individual should tentatively block out large spaces of time for studying. Within those times, he or she should schedule his or her highest priority subjects, when he or she usually feels most alert. This time of the day will vary according to the individual – some people are more alert at night, whereas others do their best work early in the day. Finally, the individual should schedule time for recreation.

iii) Creating a Daily Schedule: The goals set in the semester and weekly schedules are achieved through a daily schedule or list. Therefore, the student needs to create a daily schedule to enable him or her manage their effectively. The list should be prioritised. The individual should focus on completing his or her priorities first, crossing off tasks as soon as they are completed.

2 Plan for a Suitable Place to Study

It is better for students to study in a place that is quiet. The study place should also have adequate light and a comfortable temperature for optimum productivity.

3.Learn to Avoid Procrastination

Procrastination means putting off completing tasks, despite the fact that one has designated them as top priority. To avoid procrastinating to work on a research paper, for example, the student should:

i. Start immediately by spending some time thinking about the assignment and writing down some ideas

ii. Talk with his or her instructor about the topic

iii. Spend some time looking for sources of information in the library.

These activities help students get started and break up the tasks into smaller more manageable pieces. In the process of doing the assignment or writing the paper, the individual needs further help in order to be on track.

The Need for Timetables

A good student must draw up a timetable for study. The timetable should ideally indicate the day, time and subjects to be studied. Such timetables are positively beneficial because they enable a learner to organise

his or her study effectively. This takes load off the learner's shoulders, enabling him or her to concentrate on only one task at a time.

The knowledge of learning How, What and Where to study in itself is not enough. One must know clearly, in his or her mind, WHEN to study. This refers to a scheduled time for one's study. It is absolutely necessary that the individual strictly adheres to his or her schedule since it forms a strong base for any effective study. The simplest method of making a schedule is to have a timetable. Some advantages gained from personal timetable, including the following:

1. It helps one to distribute accumulated workload
2. It enables the student to make adequate preparations ahead of his or her class tests, assignments and examination.

A procedure to be followed when planning personal timetable. These are:

1. Allow a considerable stretch of gap between two study periods in subjects that have similarities in order to minimise interference or inhibition
2. Uphold the essence of break by making it a habit to have about five minutes break within an hour's study
3. Allocate adequate time for subjects that pose some difficulties to you
4. Ensure you incorporate time for sleep.

Some guidelines to enable students prepare and use personal study timetable are stated below:

1. Relate your personal timetable to the class timetable. If the class timetable indicates that the following day you will learn certain

subjects in class, you should schedule your personal study timetable to study at least one of the subjects the day before.

2. Schedule your difficult courses more frequently than any other. Do not neglect them in favour of an easier course or one you find more interesting.
3. Allow enough time for recreation. When you feel you are not concentrating on study, you can go for a short break, or do a work that involves writing rather than reading.
4. Go over the daily work before you go to sleep. This revision will refresh your memory.
5. Prepare the timetable such that you have enough time to sleep.

Session 4: Concentration Skills: In this session, the counsellor will use the brainstorming method to lead participants to identify and discuss ways of reducing distractions during studies. General guidelines for ensuring effective concentration during learning will be spelt out and discussed

Ways of Avoiding Distractions

Many students have difficulty in concentrating during hours of study. For students to avoid this, they need to follow the following concentration strategies.

1. Starting each study session on time.
2. Studying in a quiet place
3. Maintaining good sitting posture during long periods of active study
4. Making sure that there is sufficient ventilation and illumination
5. Taking short breaks from time to time.

Guidelines for Effective Concentration skills are also important to note:

1. Getting study materials like books, pens and pencils before you start studying to avoid distractions
2. Making sure you have a chair on which to sit and a table on which to place your study materials for reading and writing
3. Avoiding lying down to read, since you would soon fall asleep no matter how determined you could be
4. Maintaining good health at all times.
5. Making sure attention is focused on one subject at a time
6. Solving personal problems before getting at studies so as to remove worries that might affect learning
7. Setting definite goals and deadlines for reaching goals
8. Studying in a room or a place of minimal noise and distractions
9. Making sure the room is well-ventilated.

Making Use of a Library: Here, the aim will be to state purposes of a library use and identify and explain the strategies for finding relevant materials in the library.

Libraries are invaluable sources of books, journals, periodicals and articles for research and learning. Modern libraries also have internet facilities to enable users access materials electronically.

The purposes of libraries cannot be over-emphasised. They include the following:

1. It is a source of knowledge- They provide students with up-to-date books, magazines, periodicals and other sources of materials on many subjects.

2. The availability of these resources helps students write good assignments. the importance of the university library as follows:

3. It helps students to develop the habit of reading

4. It facilitates concentration during study because it is a quiet place.

Session 5: How to assess information in the library: Using question and answer technique, the counsellor will to elicit from participants how one can assess information from the library. The counsellor will give the summary after the discussion

Strategies to be used in finding relevant materials are the following:

1. Studying the plan of the library and leaflets that are available

2. Taking advantage of any guided tours offered by library staff.

3. Asking the librarians for help.

4. Consulting the subject or author catalogue.

5. Entering and walking around the library and getting an idea of where learning materials are located.

Note-Taking Skills: The nature, purpose and skills of note-taking should be stated and described. The counsellor should also demonstrate how the skills are used. The six steps of note-taking developed by Cornell should be outlined and discussed. These are record, reduce, recite, reflect, review and recapitulate. Participants should be encouraged to learn and practise the skills.

Nature of Note-taking

Taking notes properly is an important part of learning because it helps the student to remember information presented in a class or read from a textbook. For a student to study effectively, it must begin with effective methods of taking notes during lectures.

Purposes of Note-taking

1. It helps the student to remember information presented in a class or read from a textbook.
2. It enables students to write as many facts and ideas as possible during lectures.

The following are suggestions for taking notes:

1. . Take complete notes.
2. Use abbreviations that make sense.
3. Be legible enough to be able to read your notes later.
4. Write down questions and request for further explanations and make comments.
5. Rewrite or recopy your notes to facilitate understanding and to fill in gaps
6. Do not rely completely on your study materials, use additional sources

Cornell's Six Steps Note-taking Method.

These are: Record, Reduce (or Question), Recite, Reflect, Review and Recapitulate.

1. Record: Simply write as many facts and ideas as possible, but do not be tempted to get down everything that is presented by the lecturer. After the lecture, fill in gaps or make incomplete sentences complete
2. Reduce or Question: After reading through your notes, the next step is to reduce important facts and ideas to key words or phrases, or to formulate questions based on the facts and ideas.
3. Recite: Recitation facilitates retention of information. When reciting, cover up your notes while leaving the cue words and questions

uncovered. Next, read each key word or question, then recite or state the information aloud in your own words.

4. Reflect: Reflection is pondering over or thinking about the information you have learned. Reflecting is a step beyond note content. It reinforces deeper learning by relating facts and ideas to other things learned and knowledge
5. Review: In order to prevent forgetting, review and recite your notes frequently. A good guideline to follow is to review your notes nightly or several times during the week by reciting, not rereading. Brief review sessions planned throughout the semester will aid more complete comprehension and retention than cramming the day before a test.
6. Recapitulate: Recapitulation refers to summarising what you have learned. Taking a few minutes after you have reduced, recited and reflected to summarise the facts and ideas in your notes will help you integrate your information. The summary should not be a word-for-word rewriting of your notes. The summary should be in your own words and reflect the main points you want to remember from your notes.

Other methods of taking notes include the following:

1. Patterning notes: Arranging notes in a way that gives it a pattern. That is, bringing together clusters of ideas, concepts, principles and key words on segments of the topic
2. Paraphrasing: Taking the materials paragraph by paragraph and presenting them in your own words to bring out only the major ideas

3. Summarising: Writing a brief or short version of the notes in your own words.

4. Precisely: Ask questions if you are not sure.

Session 6: Consultation Skills: The main aim of this session will be to explain the concept of consultation/help-seeking, state purposes of consultation and the five steps involved. The advantages of study groups will also be discussed

Concept of Consultation or Help-seeking Strategies

Consultation involves seeking help from peers and teachers in order to adequately understand some material or find answers to an assignment.

Purpose of Consultation

The need for students to consult others requires no gainsaying. Students can turn to others for assistance since one's weak area may be another's strong area. Therefore, there is the need to solicit help from others who are capable of assisting you improve your strength and find new ways to deal with your weakness.

The Steps Involved in Consultation

A number of steps that can be followed by students when consulting with others as indicated below:

1. Recognise that you need help
2. Decide to seek help
3. Choose the suitable resource for help
4. Ask clear and precise questions
5. Continue to ask questions until you fully understand the problem.

Session 9: Reading Skills: Here, the counsellor will discuss one of the two major reading methods with participants. That is SQ3R which stands for Survey, Question, Read, Recite and Review/Recall. This will be done through verbal instruction and modelling.

Reading Strategies or Skills

Reading is one of the most difficult tasks which new students in any institution have to learn to deal with effectively. Reading done in a skilful manner could be very interesting and profitable. Effective reading methods include SQ3R method.

The SQ3R Method

Researchers have identified the SQ3R method as an effective reading strategy. This method stands for Survey, Question, Read, Recite and Review.

1. Survey: This involves reading the aims and purposes of the book, title, headings and sub-headings, preface and table of contents. Other aspects of the book that should be surveyed are first and last sentences of the text, introduction, and conclusion.
2. Question: This involves questioning oneself about the ideas one has read about. The student asks questions on what he or she has read.
3. Read: As the word implies, read the study material in order to understand it and identify relevant points.
4. Recite: This means repeat in one's own words the information one has obtained, either paragraph by paragraph or chapter by chapter.

5. Review: It means the student thoroughly goes over the previous steps. The review may entail looking over notes to recall main points and also putting notes away and trying to recall the facts. The revision should be regular to forestall forgetting what has been learned.

Session 7: Reading Skills: This session will cover the other reading method known as ROSEMARY! It means Repetition, Over-learning, Summarisation, Enumeration, Mnemonics, Application, Revision, Yes! I know it now and Linkage'. These strategies will be thoroughly explained to students by the counsellor using verbal instruction, modelling and demonstrated. Students will then be asked to learn and practise the methods and report their experiences during the next session.

The ROSEMARY! (L) Method

This method is most suited to the study of large materials, difficult materials and preparation for difficult examinations. It represents:

1. R = Repetition: That is, read the material over and over again, as many times as you can to make it completely familiar
2. Over-learning: The repetitive reading and re-reading would lead to over-learning of the material to the extent that if you have to forget any part, that part will be minimal
3. S = Summarisation: As you complete each unit or section, you summarise what you have studied. Ensure the summary captures the salient points

4. E = Enumeration: As a follow-up to the last step, enumerate the major points in a linear manner, the most important coming first. You can write them down so that you will not forget.
5. M = Mnemonics: Devise mnemonics for important concepts, ideas, principles and formulae. This will facilitate immediate recall and utilisation of such ideas and concepts.
6. A = Application: Apply the material learned so far to yourself, daily situations or given principles, events and situations by talking it out, saying it out and delivering a lecture or talk on it with practical examples.
7. R = Revision: Revise all you have done up to this stage. A thorough revision will lead to the following exclamation.
8. Y! = Yes, I know it now! Make use of the method to learn all the sections or units you have to study. By the time you can make the exclamation about those units, you can now use the (L).
9. (L) = Linkage: You link the two units or sections together by repeating the steps on both.

Session 8: Review of Sessions: Here, participants will be assisted by the counsellor to review the preceding sessions through questions and answers. Participants will also be asked to orally evaluate the sessions. Before terminating the session, the counsellor will urge participants to practise all the skills presented.

Self-Reinforcement Counselling

Session 1: Establishing the Relationship: The aim of this session is to get to know one another and the goal of the session which include discussion on

counsellor's and participants' roles. The counsellor will guide participants to set ground rules and state their expectations. Group leader will also be elected.

Session 2: Meaning, Purpose and Types of Self-Reinforcement: The objectives of this session are to explain self-reinforcement, state two purposes of self-reinforcement and identify and explain at least two types of self-reinforcement. To achieve these objectives counsellor will lead students to define self-reinforcement and enumerate the types using the question and answer method. The purpose of self- reinforcement will also be discussed. The counsellor will then summarise the responses of the participants and give them homework or assignment on the discussion of the day.

Concept of Self-reinforcement

Self-reinforcement is the process in which individuals enhance and maintain their own behaviour by giving themselves rewards that they control whenever they attain self-prescribed standards. It also involves the presentation of rewards following the occurrence of a desired behaviour. Thus, administering reward to oneself after one had discharged an expected conducted.

Purposes of Self-reinforcement

a. The intent of reward is to sustain or increase certain behaviour.
b. It intends to strengthen behaviour and that clients can give themselves rewards after engaging in specified behaviour.

Types of Self-reinforcement

Self-reward may be grouped into five main types: imaginary reward, material reward, verbal/symbolic reward, potential reward and current reward.

Components of Self-Reinforcement: The objective of this session is to state and explain the six components of self-reinforcement through brainstorming. The counsellor will guide participants to identify and discuss the steps to be followed before self-administering a reward.

The components of Self-reinforcement

1. Control of reinforcers: This means that clients exercise full control over the reinforcers so that they are free to administer the reinforcers to themselves at any time and in whatever quantities.
2. Conditional self-administration: This is self-prescription of a performance requirement. It involves self-denial of rewards until the appropriate or conditional behaviour has been achieved.
3. Adoption of performance standards: Self-reinforcement requires adoption of performance standards for determining the occasions on which a given behaviour warrants self-reward. Performances that match or exceed the minimum criterion serve as discriminative cues for self-reward whereas reinforcers are withheld for sub-standard performances
4. Self-monitoring: Clients who monitor their own performance (behaviour) ascertain whether they have attained their goals and then reward themselves for goal attainment.. Also, the greater the value of the self-reward, the higher the level of performance

Steps Involved in Self-reinforcement:

a. Specifying conditions under which rewards are delivered: The principal behaviour for self-reward will comprise the

implementation of suitable study behaviour(s) such as consultation.

b. Self-monitoring: It consist of self-observation and self-recording of one' study lifestyle. It may include concentration, consultation and time management.

c. Self-evaluation or assessment: This deals with finding out if the target study behaviour has been portrayed.

d. Self-determination of what to use as a reward and the amount: This indicates that the kind and quantity of reward offered to oneself ought to be specific.

e. Self-administration or delivery of the reward: Upon realising a goal or making the suitable response, one will afterwards self-deliver the reward.

f. Planning for self-change maintenance: That is seeking environmental support in order to sustain the appropriate behaviour. For instance, the individual may receive feedback concerning progress made from the other people or obtain assistance in offering rewards.

These Steps could also be adopted:

a. Individualise the reward to the client. Quite often, what one person finds rewarding is very different from the rewards selected by someone else.

b. The rewards should be accessible and convenient to use after the behaviour is performed.

c. Several rewards should be used interchangeably to prevent satiation. A reward can lose its reinforcing value because of repeated presentations.

d. Different types of rewards should be selected (verbal/symbolic, material, imaginary, current, and potential).

e. The rewards should be potent but not so valuable that an individual will not use them contingently.

f. The reward should not be punishing to others.

g. The rewards should be relevant to the client's values and circumstances as well as appropriate to his or her culture, gender, age, socio-economic status, and other salient features (e.g. personality and personal philosophy).

To end this session the counsellor will give out assignments to each individual. Each of the participants will be asked to learn and put into practice the self-reinforcement model or strategy.

Session 3: The Target Study Behaviour for Self-Reinforcement: In this session the counsellor will outline and explain six major dimensions of study behaviour for self-reinforcement. Through question and answer method, the counsellor will elicit from participants the target dimensions of study behaviour to self-reinforce.

The summary of what constitutes the appropriate dimensions of study behaviour is as follows:

1. Managing time effectively
2. Controlling distraction during studying
3. Taking good lecture notes
4. Seeking academic support from others

5. Reading effectively
6. Making use of the university's library.

Effective Time Management: In this session the counsellor will assist participants to define the term "effective time management", state two purposes of time management and prepare at least three schedules of study. Also using questions and answers, the counsellor will elicit from participants effective time management skills such as preparation of semester, weekly and daily schedules and making a personal study timetable. Samples of time management schedules will be displayed for the participants to observe. The session will be concluded by giving participants an assignment to do regarding the schedules presented. At the same time, they will be motivated to learn and practise the time management skills presented.

Session 4: Controlling Distractions during Studying: The objective of this session is to enable participants to discuss at least five ways of controlling distractions during studying. Brainstorming strategy will be used by the counsellor to lead participants identify and state how to control distractions during studying. The ways of controlling distractions include the following:

1. Making sure attention is focused on one subject at a time
2. Seeking help from a parent, a friend or a counsellor so as to overcome personal problems that may prevent you from studying effectively
3. Taking short breaks from time to time
4. Studying in a quiet place
5. Maintaining good sitting posture during studying
6. Getting all the learning materials ready at hand before you start studying

The need for participants to form and use study groups will also be highlighted in the following ways:

i. Study groups improve learning through sharing of learning materials among members.

ii. Study groups also enhance learning by focusing on course materials.

iii. They usually effect corrections in written tasks and marked scripts.

Session 6: Reading Effectively: The aim of this session is to state and describe two major reading strategies. This session will expose students to two major reading strategies, namely, SQ3R and ROSEMARY! (L). These strategies will be thoroughly explained and demonstrated to students on their use by the counsellor. Students will then be asked to learn and practise the methods and report their experience.

The SQ3R Method

Researchers have identified the SQ3R method as an effective reading strategy. This method stands for Survey, Question, Read, Recite and Review.

1. Survey: This involves reading the aims and purposes of the book, title, headings and sub-headings, preface and table of contents. Other aspects of the book that should be surveyed are first and last sentences of the text, introduction, and conclusion.

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2. Over-learning: The repetitive reading and re-reading would lead to over-learning of the material to the extent that if you have to forget any part, that part will be minimal

3. S = Summarisation: As you complete each unit or section, you summarise what you have studied. Ensure the summary captures the salient points

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

5. M = Mnemonics: Devise mnemonics for important concepts, ideas, principles and formulae. This will facilitate immediate recall and utilisation of such ideas and concepts.

6. A = Application: Apply the material learned so far to yourself, daily situations or given principles, events and situations by talking it out, saying it out and delivering a lecture or talk on it with practical examples.

7. R = Revision: Revise all you have done up to this stage. A thorough revision will lead to the following exclamation.

8. Y! = Yes, I know it now! Make use of the method to learn all the sections or units you have to study. By the time you can make the exclamation about those units, you can now use the (L).

9. (L) = Linkage: You link the two units or sections together by repeating the steps on both during the next session.

Session 7: Making Use of the College Library: Here, the importance of the library and the strategies students can employ in accessing learning materials in the subject matter will be discussed. After using the question and answer technique to elicit from participants the importance of a library facility, the counsellor will provide the following summary. The library is important because:

i) It is a source of knowledge

ii) It enables students to develop the habit of reading;

iii) It also promotes learning, since it is always quiet.

Some of the strategies that can be used in accessing learning materials will also discussed and summarised below:

- Take advantage of any guided tours offered by the staff
- Seek help from any of the librarians
- Make use of the subject and the author catalogues.

Session 8: Review of the Sessions: This session will cover the review and assessment of the preceding sessions among participants. The participants will also be encouraged to learn and put into practice all the skills taught.

Ethical Clearance

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C/O Directorate of Research, Innovation and Consultancy

8TH MARCH, 2019

Ms Gladys Abena Amuaful
Department of Optometry
University of Cape Coast

Dear Ms Amuaful,

ETHICAL CLEARANCE – ID: (UCCIRB/CES/2018/20)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled **Effects of Study Skills and Self-Reinforcement Counselling on Study Behaviour of Students on Colleges of Education in Central and Western Regions, Ghana.** This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST
Date 13/03/19

APPENDIX C

Introductory Letter

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

FACULTY OF EDUCATIONAL FOUNDATIONS

DEPARTMENT OF GUIDANCE AND COUNSELLING

Telephone: 0332091854
Email: dgcg@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: DGC/L.2/VOL.1/ 30

28th August, 2018

Your Ref:

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

We introduce to you, Gladys Abena Amuaful a student pursuing a Ph.D Programme in Guidance and Counselling at the Department of Guidance and Counselling of the University of Cape Coast. As a requirement, he is to submit a Thesis on the topic: *"Effects of Study Skills and Self Reinforcement Counselling on Study Behaviour of Students in Colleges of Education in Central and Western Regions, Ghana"*. We are by this letter affirming that, the information she will obtain from your institution will be solely used for academic purposes.

We would be most grateful if you could provide her the necessary assistance.

Thank you.

Rev. Fr. Dr. Anthony K. Nkyi
HEAD OF DEPARTMENT