UNIVERSITY OF CAPE COAST

EFFECT OF SELF-DETERMINATION SKILLS ON ACADEMIC ACHIEVEMENTS OF DISTANCE EDUCATION STUDENTS OF UNIVERSITY OF CAPE COAST, GHANA

EVELYN ASSABIL

2022

UNIVERSITY OF CAPE COAST

EFFECT OF SELF-DETERMINATION SKILLS ON ACADEMIC ACHIEVEMENTS OF DISTANCE EDUCATION STUDENTS OF UNIVERSITY OF CAPE COAST, GHANA

BY

EVELYN ASSABIL

Thesis submitted to the Department of Education and Psychology of Faculty of Educational Foundation, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of a Master of Philosophy degree in Educational Psychology.

MARCH 2022

DECLARATION

Candidate's Declaration

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

Candidate's Signature: …….. Date: …….

Name:……..

Supervisors' Declaration

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

Principal Supervisor's Signature: ……. Date: ……..……

Name:……..

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

Name:……...

ABSTRACT

The study aimed to examine the effect of self-determination skills on the academic achievements of University of Cape Coast distance education students reading the Diploma in Basic Education (DBE) in the Kumasi Metropolis. The descriptive survey design was adopted as the research design. The study further employed a simple random technique to select 338 respondents from the second-year students DBE students in Kumasi Metropolis. Data were collected using a self-administered questionnaire. The frequencies, descriptive statistics and percentages were used to analyse the first research question. The results showed that the respondents possess choice-making skills, decision-making skills, goal-setting and attainment skills, self-regulation and management skills and self-awareness and knowledge skills. Independent samples t-test was conducted to determine the difference in the academic achievements of the female and male respondents to analyse research question two. The correlation value and test of significant value were reported to show that there was statistically no significant difference between the academic difference of the male and female respondents. The p-value from the analyses implied that the relationship between the respondents' self-determination skills and their academic achievements is statistically significant; hence the self-determination skills have a significant effect on the academic achievements of the respondents. It is the recommendation of this study that career guidance and counselling session are organized for the students when they are enrolled into college on the need and importance of high academic achievement regardless of one's gender.

ACKNOWLEDGEMENTS

First and foremost, I want acknowledge the efforts and hard of my supervisors. I am extremely grateful to my supervisors, Dr Vera Rosemary Ankomah-Sey and Dr. John Ekow Laryea for their invaluable advice, continuous support, and patience during my MPhil study. Their immense knowledge and plentiful experience have encouraged me in all the time of my academic research. I would also like to thank Dr Vera Arhin and Dr Samuel Teiku Gyansah for their advice, tuition and material support. Finally, I would like to acknowledge the support and sacrifices of my parents, my husband and my children. Without their tremendous understanding and encouragement over the past few years, it would be impossible for me to complete my study.

DEDICATION

To my friends and family

TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE: INTRODUCTION	1
Background to the study	1
Statement of the Problem	6
Purpose of the Study	7
Research Questions	8
Significance of the Study	9
Delimitation	10
Limitations	11
Definition of Terms	11
Organisation of the Study	12
CHAPTER TWO: LITERATURE REVIEW	14
The Concept of Self-Determination	14
The Concept of Academic Achievement	17
Distance Education	18
Trends in Distance Education	21
Characteristics of Distance Learners	29

Psychological Needs of Distance Learners 31

Academic Achievement 34

Gender Differences in Academic Achievements 35

Theoretical Framework 37

Overview of Self-Determination Theory 37

Self-Determination Skills versus Academic Achievements 40

Empirical Review 42

Conceptual Framework 44

Chapter Summary 47

CHAPTER THREE: RESEARCH METHODS 49

Research Design 49

Study Institution 50

Population 51

Sampling Procedure 52

Data Collection Instruments 54

Measurement of Variables 58

Validity of the Instrument 58

Reliability 59

Data Collection Procedures 60

Data Processing and Analysis 61

Ethical Considerations 62

Chapter Summary 62

CHAPTER FOUR: RESULTS AND DISCUSSION 64

Presentation and Discussion of Results 64

Demographic Background of the Respondents 64

Course Centre of the Respondents 64

Age Distribution of Respondents 66

Gender Distribution of Respondents 67

Research Question One 67

Choice-Making Skills 68

Decision-Making Skills 70

Goal Setting and Attainment Skills 72

Self-Regulation and Management Skills 74

Self-Awareness and Knowledge Skills 76

Research Question Two 78

Research Question Three 80

Discussions of Results 82

Summary of Key Findings 87

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 89

Summary 89

Conclusions 91

Recommendation and Suggestions for Further Studies 92

REFERENCES 94

APPENDIX A QUESTIONNAIRE 116

Section A: Demographic Background 116

Section B: Self-Determination Skills 116

Section C: Academic Achievements 118

LIST OF TABLES

Table		Page
1	Accessible Population of Second Year DBE Students of CoDE, UCC in Kumasi	52
2	Sample Size of Second Year DBE Students of CoDE, UCC	54
3	Response Distribution on Choice-Making Skills	69
4	Decision-Making Skills	71
5	Goal Setting and Attainment Skills	73
6	Self-Regulation and Management Skills	75
7	Self-Awareness and Knowledge Skills	77
8	Paired Sample Statistics	78
9	Paired Sample Test	79
10	The Difference Size – Cohen D	79
11	Model Summary	80
12	ANOVA	81
13: Coefficients		81

LIST OF FIGURES

Figure		Page
1	Association between SD skills and academic achievement of learners	47
2	Course Centre Distribution of the Respondents	65
3	Age Distribution of Respondents	66
4	Gender Distribution of Respondents	67

CHAPTER ONE

INTRODUCTION

Background to the study

Conventionally, distance education is an educational setting that usually involves correspondence courses in which the learner corresponds with the educational institution through mail. In modern times, the term distance education as it is generally called, according to Sharon (2007), is a combination of programmes run on the traditional classroom instruction and distance learning. With the world gradually becoming a global village and being connected with the internet and other technologies, Jean (2007) has classified the various technologies used in distance education into two learning modes. The first she mentions is a form that allows learners and teachers to be in a virtual classroom at the same time just like that of the traditional classroom teaching setting is referred to as the synchronous learning (Capan, 2010). On the other hand, the mode of learning where the learners get access to the learning materials and study using their own schedules without being present together at the same time, she termed asynchronous.

As a result of the high level of demand for higher education in Ghana and the pressure on accommodation at institutions for regular or full-time studies, many locations are unable to accommodate the number of students wishing to enroll in a regular programme (Michael, 2013). This coupled with occasional factors such as the need to acquire knowledge in technology, the affordability of public tertiary education, and population increase, among others have caused the demand for higher education to increase (Michael, 2013; Darling & Foster, 2012).

Academic achievements of students have been regarded as a major performance measure in every educational environment since according to Wibrowski, Matthews and Kitsantas (2017), it proves the acquisition of planned results. Often measured by the use of examinations and continuous assessments, academic achievement is arrived at when a student reaches an educational benchmark such as a bachelor's degree (Ahn, et al., 2011). The academic achievements of individuals reflect how they, as students, handle their personal studies as well as complete tasks that have been set out by their tutors. Students' academic achievement is dependent on the ability of the student to study, remember what has been taught and learned and the ability to communicate the facts and knowledge gathered either orally or written (Jong, et al 2014; Junco, 2012).

Learners' academic achievements have mostly been associated with factors concerning classroom activities forgetting other factors which may affect them such as the home, school environment, peer group, self-concept, emotional maturity and socio-economic status (Bennett, 2003). All these, together with other classroom activities contribute to the augmentation of the academic achievements of learners. In the world of a university distance learner, additional factors such as readiness to study, study habits, intelligence, attitude, anxiety, self-competence, self-determination, academic motivation and health affect their academic achievements (Bower, et al 2012).

Self-determination as a term is a compound concept that consists of the combination of skills and knowledge. Further, it is regarded as a vital set of skills which experts advocate that it affects successes at the university or higher education level and in adult environments (Dukes & Shaw, 2008). These skills

are said to be teachable, measurable and best developed through constant practice. Studies suggest that individuals possessing high self-determination are successful in different areas of their career and life (Deci & Ryan, 2008). Self-determination plays an essential role in how individuals operate in several diverse areas of their lives (Deci, Vallerand, Pelletier & Ryan, 2009). Self-determination is demonstrated when an individual's strengths and limitations are identified, and the individual develops action plans, as well as the ability to analyze possibilities, create and act on them, and change as needed.

The role played by self-determination is unabated in several contexts. Rowe (2014) defines the term as the ability to solve problems, make decisions, set gaols, assess options, act to achieve the stated gaols and accept the results of those actions. Individuals with high levels of determination have been found to have better levels of life satisfaction later in life. (Ekelund, Dahlin-Ivanoff, & Ekelund, 2014), stimulate weight loss and physical activity (Teixeira, 2012) and moderate occupational exhaustion. According to Zhang (2001), individuals who have ample self-determination skills turn out to show more positive attitudes to life than those who do not. This is visible in the life of students who exhibit such skills and are self-motivated and can help other students to feel interested, pleased and committed to what they do (Bijari, et al 2013).

Self-determination, as a concept, is related to an extensive range of fields such as health, work, parenting, sports and education (Nuchwana, 2012; Palmen, et al 2011). In sports, the promotion of self-determination skills can encourage student-athletes to do extremely well. If students who are athletes think that they are good enough to accomplish their aims and overcome challenges, they often become more determined to perform better. To excel,

encourage students to have a feeling of competence, and to put up excellent skills that are pleasurable and vital to them (Paul, et al 2012). Self-determination also plays a crucial role in social relationships. The sense of belonging that students have is overcritical to their self-determination development. In the educational field, should a student who shows high self-determination fails to complete an important assignment, he/she will accept the mistake, and believe that he/she can do better in making things right in order not to repeat it again (Cherry, 2021). Contrary to this, should the same student have low self-determination, he/she will make excuses to defend their actions, assign blame, or at worst refuse to admit to the mistake. Wehmeyer and Schwartz (2012) opine that, the word "self-determination" has been related to a diversity of positive results in students with disabilities, such as higher self-esteem, improved physical and psychological health as well as overall wellbeing. (Diprete & Jennings, 2012).

Problem-solving abilities, goal-setting skills, decision-making skills, autonomous behaviours, empowerment, self-regulation, and self-realization are all part of the process of becoming self-determined. (Wehmeyer, Agran & Hughes, 2007). According to Wehmeyer (2018), component skills of self-determined individuals include decision-making skills, self-advocacy skills, problem-solving skills, choice-making skills, self-regulation skills (including self-observation, evaluation, and reinforcement), goal-setting and attainment skills, positive self-efficacy and self-awareness skills. (Cho, et al 2013; Liu, et al 2013). The combination of self -determination skills like action planning, self-regulation, and decision-making has been proved in academics to assist students in assessing and setting personal goals, as well as becoming more

autonomous (Eisenman, 2007). He adds that such self-determined learners have an increased sense of control over their learning skills.

Our daily life activities are determined by our set of decision-making skills. These decisions are taken either inside the classroom or outside of the classroom where students are put to the test to make wiser decisions (Weir, 2011). Offering students to make their own choices involves presenting them with opportunities to choose instructional actions, schedules, and cohorts. This action will help them to develop skills that express control and a feel of responsibility where they find themselves (Wehmeyer, 2008). Students are said to be problem solvers when they inhibit the skills of identifying a problem, have the ability to come up with potential solutions and assess each alternative's impact, and above all make the best option out of the alternatives given (Wehmeyer, 2018). Students are tasked with creating a favourable act of work and also outline strategies that will help in attaining them once they possess great goal-setting and attainment skills. Wehmever (2008) opines that the attainment of these goals in one way or the other encourages them to seek independence in school and other life endeavours. According to Wehmever (2008), a student's ability to lead necessitates assertiveness and negotiability, effective communication, and interpersonal skills. Self-advocacy and leadership skills are terms used to describe these abilities. They require the confidence and ability to speak for oneself and the idea of what exactly one is speaking of to achieve one's objectives (Goodman, et al., 2010; Hurley, 2010). Last but not least, students must assess and monitor their learning, time management, and behaviour to develop self-management and self-regulation skills.

Despite the fact that distant education has increased access to and enrolment in postsecondary education, distant learners are known to be having lower academic achievements than the campus students. (Katartzi & Vlachopoulos, 2011). Age, social class, a lack of support, and isolation have all been cited as reasons for this (Fozdar & Kumar, 2007). Many factors have been identified as being the reasons for the lower academic achievement in distance education, financial difficulties, sense of isolation, lack of feedback and encouragement, boredom with courses, change in career goals, insufficient motivation and dissatisfaction with requirements or regulations. (Fozdar & Kumar, 2007).

As a result, the study looked at the relationship between self-determination skills such as decision-making, problem-solving, and goal-setting, and academic achievement of University of Cape Coast (College of Distance Education) students pursuing a Diploma in Basic Education (DBE).

Statement of the Problem

According to Martinez (2003), studies conducted often cite distance education students' personal causes for attrition and resistance rates include; family problems, income, child care, distractions, and job needs and demands. Available data at the Regional Office of the College of Distance Education in Kumasi (2020), show yearly average rate of 12%-18% DBE distance education students' attrition and resistance rates, respectively from 2016 to 2019. Several research studies have linked students' self-determination skills possession to high academic achievement (Chiu & Hew, 2018; Yailagh, 2014; Pennell, 2011). For post-secondary students with learning disabilities, there is a favourable

association between self-determination assessment scores and grade point averages. (Yailagh, 2014; Pennell, 2011).

Recent developments in Self-Determination Theory (SDT) have demonstrated its use in the educational setting (Chiu & Hew, 2018). Although SDT has been frequently used to improve student learning in face-to-face situations (Ryan & Deci, 2020), it has been largely overlooked in distance education research settings (Hsu, Wang, & Levesque-Bristol, 2019). Gillet (2012) highlighted that the amount of research on the role of intrinsic and extrinsic motivation in educational achievements is rapidly increasing.

Research works on the relationship between self-determination and academic achievements of distance education learners are far between. The purpose of this study was to examine the effect of self-determination skills on academic achievements of distance education students of CoDE of UCC, pursuing Diploma in Basic Education (DBE).

Purpose of the Study

The purpose of the study was to examine the effect of self-determination skills on academic achievements of distance education students of CoDE of UCC, pursuing Diploma in Basic Education (DBE).

Objectives of the Study

The following research objectives were constructed. Specifically, the study sought to;

1. Identify the self-determination skills of second year DBE distance education students of UCC in the Kumasi Metropolis;

2. Determine the differences in academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis; and
3. Examine the effect of self-determination skills on academic achievements of second year DBE distance education students in the Kumasi Metropolis;

Research Questions

The following research questions were developed to guide the study in light of the study's objectives:

1. What are the self-determination skills of second year DBE distance education students of UCC in the Kumasi Metropolis?

Research Hypotheses

2. H_0: There is no statistically significant difference in the academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis.

   H_1: There is a statistically significant difference in the academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis.
3. H_0: There is no statistically significant effect of self-determination skills on the academic achievements of second year DBE distance education students of UCC in Kumasi Metropolis

   H_1: There is a statistically significant effect of self-determination skills on the academic achievements of second-year DBE distance education students of UCC in Kumasi Metropolis

Significance of the Study

The purpose of this study was to examine the relationship between self-determination skills and academic accomplishment among second-year distance education students enrolled in the CoDE of UCC's DBE programme. The findings of this study may be beneficial and immediately relevant to both Senior High School and Post-Senior High School educational environments in Ghana, as well as to college-bound students enrolled in distant education institutions. The association between self-determination abilities and academic accomplishment of distant education students may enable more effective transition planning in secondary school and more meaningful professional development for secondary and post-secondary faculty. Additionally, it may equip distant students to succeed in the rigorous post-secondary distance education environment, despite the difficulties associated with distance education.

Given the gap in the literature regarding distance education students' self-determination skills and their subsequent impact on academic achievement, this study would fill that gap by providing beneficial knowledge and information to students, course tutors, and distance education institutions in Ghana. A better understanding of the relationship between these two variables may aid course tutors and counsellors in developing more effective transition plans for high school students interested in attending college, as well as distance education students enrolled in professional support service programs.

Additionally, this research establishes implications for future research in order to better fully address this area's insufficiency. The study will add to the body of knowledge about self-determination in distance education. Self-

determination theory has discovered strategies for increasing students' motivation to study at all levels of education, including distant education. The outcomes of this study will aid the Ministry of Education in developing and implementing education policy in Ghana.

Again, the study will be significant to the Management of the CoDE of UCC and other similar institutions in developing course modules that will take into consideration the self-determination skills of distance education students. Also, it will help distance education institutions in Ghana to include the relevance of self-determination skills in orientation programmes for distance education students. Finally, the understanding of self-determination theory has the potential to improve the assertion of course tutors' perception about teaching, students' motivation, and lesson preparation (Niemiec & Ryan, 2009). Thus, this study will assist course tutors to consider the self-determination skills of distance education students in their lesson preparations, lesson deliveries and student motivation.

Delimitation

There are numerous factors (such as student's personality traits, learning styles, parenting and self-determination skills) that are likely to influence the academic achievement of DBE students. however, this study focused on the self-determination skills of DBE students. The study focused on only final second year diploma in basic education (DBE) students of CoDE in Kumasi Metropolis. Kumasi was selected because CoDE has seven (7) course centres, the highest in all the regions in Ghana. Proximity of the course centres to the researcher, as well as time and financial constraints, informed the decision to

select students of CoDE in Kumasi. Furthermore, second year DBE students were selected because DBE students have high failure and attrition rates.

The second year DBE students were used as the respondents for the research because they have had four (4) end of semester examinations which is enough to use to represent their academic achievements, compare to the first years who have sat for only two (2) end-of-semester examinations. The third years were too busy and unprepared to be part of this research since they were preparing to exit the programmme (DBE).

Limitations

Administration of a questionnaire to collect self-reported data could be distorted and affect the findings of the research and the actual information on the ground. This is because respondents may not produce responses that reflect their true nature of self-determination skills. Also, the results derived from the sample of only second year DBE students cannot be used to generalize the effect of self-determination skills on the academic achievements of all students. Sampled respondents from the first, second and third years could have been the true representation of DBE students.

Finally, the research was conducted at the College of Distance Education, UCC, which is a government institution. Comparatively, the findings of the research may differ from research conducted in a private institution, where the educational climate is not the same as in a government institution.

Definition of Terms

For the purpose of this study, the following terminologies were defined operationally to enhance the full understanding of the study:

Academic Achievement: It is the Cumulative Grade Point Average (CGPA) of the academic transcript of each respondent**.**

Choice Making Skills: it refers to students' ability to express their preferences between two or more options

Decision-Making Skills: it is the student's ability to effectively judge what choices or solutions are right at any given moment.

Distance Education: It is a form of education where students meet at a study centre for face-to-face tuition, not on daily basis.

Distance Students/Learners: they are the individuals who have signed up for a distance education programme.

Goal Setting and Attainment Skills: they are the critical components in the development of student's abilities that lead to agentic action and self-determination.

Problem-Solving Skills: it is the student's ability to identify a problem, possible solutions, and an understanding of the potential pros and cons of each solution.

Self-Determination: A combination of skills, knowledge and beliefs that enable a person to engage in self-regulated, goal-directed and autonomous behaviour.

Organisation of the Study

This study is divided into five major sections: Chapter one contains the study's introduction, which includes the study's background, a statement of the problem and purpose, as well as research objectives and research questions. Additionally, it discusses the study's relevance, its limits and delimitations, as well as the operational meanings of words.

Chapter two focuses on the review of existing relevant and related literature on the study. The review is organized under three major areas namely the concept, theoretical and empirical reviews on distance education, self-determination, and academic achievements. The chapter ends with a summary of the literature.

Chapter three describes the methodology used in the study. This includes the study area, research design, population, sample and sampling procedure. The chapter further discusses the sources of data and data collection plan, the measurement of variables, validity of the instrument, data reliability and ethical issues considered. Finally, the chapter describes data collection procedures, data processing and analysis and a summary of the chapter.

The analyses of results and findings from the study are discussed in chapter four. These include the demographic background of respondents, the difference in academic achievements of male and female students, self-determination skills of respondents, the relationship between self-determination skills and academic achievements, and effects of self-determination skills on academic achievements.

Chapter five presents the summary, conclusions, recommendations to practitioners and suggestions for further study.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews existing relevant and related literature on the concept of self-determination skills of distance education students and its effect on their academic achievements. The chapter is therefore, categorized into three main parts, namely conceptual, theoretical and empirical reviews which capture the views and ideas of different authors and researchers that are relevant to the problem under study.

The Concept of Self-Determination

The underling conditions are important to psychological health and well-being is considered essential (Deci & Ryan, 2012). They add that these conditions are inherent and general. The theory of SD as explained by Deci and Ryan has to do with endorsing one's self to the highest level. A sense of freedom is one of the traits of self-determined persons which they find interesting and vital to their being. This term has been realized not to be static as it requires consistent growth and development, achievement, a feel of want and a space to function fully (Deci & Ryan, 2012). The theory is used to describe the traits as inherent growth tendencies (Bonneville-Roussy & Bouffard, 2015).

In addition, the SD Theory is regarded as a macro theory that concerns itself with the factors of motivation behind the behaviour choice of people (Korinek & Defur, 2016; Araujo, 2016). The theory further specifies the social-contextual variables that are the basis to human functioning, growth and their wellbeing. According to this theory, humans are naturally agentic and information-seeking beings and have the natural ability to explore, learn and

also integrate better ideas into a world of an organised and coherent sense of self (Alivernini & Lucidi, 2011).

Self- Determination is built on an individual's sense of choice, commitment and volition (Deci & Ryan, 2010), which has been explained by three psychological needs namely competence, autonomy and relatedness. These, according to the writers are universal nutrients for the psychological well-being of an individual. Several researches that employed the use of this theory have shown that when these universal psychological needs were satisfied, there was a predicted range if positive operational outcomes with regards to the quality of motivation, learning, organization, self-regulation, integration, well-being and vitality (Concina, 2019).

The term "needs support" refers to social conditions that are designed to suit a person's basic psychological requirements (for example, opportunity for choice, productivity, and mastery, or profound interpersonal interactions) (Jang, et al 2012: Cleary, et al 2012). Self-determination theory states that the environmental and social factors that enhance competence, autonomy, and relatedness will raise inherent motivation, whereas those that weaken these fundamental psychological prerequisites would diminish intrinsic drive.

Dimensions of Self Determination Skills

The dimensions of students' self-determination skills are;

Students' choice-making skills are essential for their personal development and success in various aspects of life. Making good choices involves critical thinking, weighing the consequences, understanding one's values and goals, and considering the available options.

Self-awareness: Knowing oneself, understanding personal strengths, weaknesses, interests, and values is crucial in making decisions that align with one's identity and aspirations.

Goal setting: Setting clear and achievable goals helps students make choices that are in line with their long-term objectives.

Information gathering: Students need to gather relevant and accurate information to make well-informed choices. This includes researching options, seeking advice, and considering various perspectives.

Critical thinking: Analytical thinking helps students assess the pros and cons of each choice, evaluate potential risks, and anticipate the consequences of their decisions.

Decision-making process: Developing a systematic approach to decision-making, such as considering alternatives, weighing the outcomes, and identifying potential obstacles, can lead to more effective choices.

Resilience: Learning to cope with failure and setbacks is crucial in developing strong choice-making skills. Resilience enables students to bounce back from mistakes and continue striving for their goals.

Empathy: Understanding the impact of decisions on oneself and others is important in making choices that are considerate and compassionate.

Time management: Efficiently managing time helps students prioritize choices and allocate resources effectively.

Long-term perspective: Encouraging students to think about the long-term consequences of their choices promotes better decision-making in both academic and personal aspects.

Assertiveness: Encouraging students to express their opinions and stand up for their choices fosters self-confidence and self-advocacy.

Ethical considerations: Instilling a sense of ethical responsibility in students helps them make choices that align with their values and contribute positively to society.

Reflection: Encouraging students to reflect on past choices and their outcomes facilitates learning from experiences and improving future decision-making.

It can be said that, educators, parents, and mentors play a vital role in nurturing students' self-determination skills. By providing guidance, support, and opportunities for practice, they can empower students to become confident decision-makers who are better equipped to navigate life's challenges and opportunities. Though, there are several dimensions under students' self-determination skill, this study will look at some dimensions like choice making skills, decision-making skills, goal setting skills, goal setting and attainment skills and problem-solving skills.

The Concept of Academic Achievement

Academic accomplishment is a critical component of schooling (Rono, 2013). It is thought to be the educational system's centre of gravity. According to Narad and Abdullah (2016), academic achievement of students has a bearing on an academic institution's success or failure. Pedrosa (2006) on socioeconomic and educational backgrounds, discovered that learners from lower socioeconomic and educational backgrounds did significantly well as compared to higher educational and socioeconomic learners. (Creswell, 2013; Lehmann & Jorgensen, 2012). According to Eamon (2005), pupils from low socioeconomic backgrounds do poorly in school and have lower grades than

other students or their peers from higher socioeconomic backgrounds. Several factors contribute to student academic achievement improvement (Ferranel, et al 2014; Creech, et al 2013).

Ali (2013) discovered that daily study hours, parents'/guardians' socioeconomic position, and learners' ages all have a great effect on academic attainment. Similarly, the study of Narad and Addullah (2016) and Farooq (2011) revealed that the economic status, academic experience and encouragement of parents are all factors that affect academic achievement. Proper supervision from parents and instructors, as well as learning facilities and communication skills have also been seen as important indicators of academic success. (Singh, Malik & Singh, 2016).

Concept of Distance Education

Distance education is unique from on-campus education in the traditional sense. While some scholars say that using a range of media facilitates the goal of education remains the same, regardless of how instruction affects the learning process. (Evans, 2015; Mc-Namara, et al 2014). Media and technology are essentially conveyances that have no direct bearing on education (Clark, 2010). The most critical characteristic of educational materials is their content and teaching style.

Other experts, on the other hand, believe that advancements in technology have had a big impact on education (Gouzouasis, 2019; Leximancer, 2018; Hatfield, 2017). The teaching and learning experience has been revolutionized by modern technologies. Both what we need to know and how we learn it have changed as a result of technological advancements. The invention of a moveable type of education, similar to the Gutenberg Revolution,

has enabled knowledge to be conserved and disseminated using written text rather than merely oral means. A new way of representing knowledge that is different from the writing method has been made possible by an interactive computational model. (Hatfield, 2017). As a result, distance education is fundamentally different from face-to-face education. According to Garrison and Anderson, "technology directly influences the display, interaction, cost, and design of educational results".

Though disagreements concerning the utility of distance education, in general, professors and administrators see it favourably (Hatfield, 2017). Distance education, when implemented correctly, has the potential to be a massive machine for providing educational possibilities. It is regarded as being cost-efficient for both students and colleges, universities and other educational organizations when used as a method of imparting knowledge (Smaldino, 2008). Teacher-to-student ratios are also improved when distance education is used. Distance education again, gives students the chance to interact with students from other backgrounds and can even provide students with the opportunity to communicate with professionals in the topic they are learning.

Distance education is a form of education in which the teacher and the learner are geographically and temporally separated; communication between the two is facilitated through print media or ICT; and learning is controlled by the learner rather than the teacher (Mnyanyi & Mbwette, 2009). Hatfield, (2017), supports this definition, stating that distance learning or education occurs when the teacher and learner are physically separated in time, the student has volitional power over learning rather than the instructor, and communication between the two is noncontiguous and mediated by print or

some other form of technology (Lopez-Iniguez, 2019; Krause, et al 2019). Sherry's description acknowledges both ICT and paper and pencil usage. Jang, Gravenir and Mse (2012), opined that the assertions of Sherry might not hold in developing country because of challenges with energy, outdated technology, and inadequate infrastructure. Caruth and Caruth (2013) defined remote education similarly, defining it as teaching in which students are isolated from teachers throughout their studies.

Ghana's remote education, according to their definition, is a hybrid of correspondence and traditional education. The conventional form of instruction is one in which the teacher and the learner engage face-to-face (McPherson, et al 2018). Tanzania launched Open and Distance Learning (ODL) in 1994 with 766 students following the legalization of ODL by the Tanzanian government in 1992, and has grown to 40,146 students as of 2008 (Mnyanyi & Mbwette, 2009, citing Open University of Tanzania, 2009). The Open University of Tanzania (OUT) uses a print-based medium in conjunction with face-to-face sessions to promote access to higher education (Palmer, 2013). Their primary challenge is the rapid pace of technological advancement, which results in a scenario where there is never a suitable technology available at any one moment, since new technologies become obsolete before institutions can fully apply them (Pike, 2017; Ryan & Deci, 2019).

The constant growth of the student population in higher education in SSA has resulted in a problem in student admissions to the region's universities (Nichol & Watson, 2003). In order to achieve universal primary educational goals by 2015, the UNO predicted in 2011 that around 3.8 million teachers would need education and recruitment (United Nations, 2011). The higher

growth rate of Ghana's learner population, along with the university system's restricted capacity, sparked calls for immediate action to surge university admission. For example, over the previous two decades (between 1990 to 2008 academic year), the overall number of students enrolled at Ghana's public universities has steadily increased. As per Effah (2005), university enrolment increased from 11,857 in 1991/1992 to 31,460 in 1998/1999, and from 69,968 in 2004/2005 to 93,285 in 2006/2007. UNESCO circulated a report in following the implementation of Ghana's Educational Reforms in 1987, there was a considerable demand for higher education (Effah, 2005). The overall student's number in public institutions in the last five years (2008/2009), 107,640 in 2010, and 115,346 in the 2011/12 academic year (NCTE, 2012; Ghana Education Service Annual Report, 2008/2009). Nevertheless, the World Bank has warned that most SSA countries may be unable to meet the demand of qualified applicants for higher education as a result of the resource unavailability in educational technology, training facilities and manpower. Ghana's educational system adopted distance learning to provide access to tertiary education (TE). It is characterized as a structured educational program in which the tutor and the students are separated physically.

Trends in Distance Education

The constant growth of the student population in higher education in Sub-Saharan Africa (SSA) has resulted in a problem in student admissions to the region's universities (Nichol & Watson, 2003). In order to achieve universal primary educational goals by 2015, the UNO predicted in 2011 that around 3.8 million teachers would need education and training (United Nations, 2011). The fast expansion of Ghana's student population, along with the university system's

limited capacity, prompted calls for immediate action to Open University admissions to qualified students. (Schatt, 2018). Over the previous two decades, the overall number of students enrolled at Ghana's public universities has steadily increased (between 1990 to 2008 academic year).

University enrolment increased from 11,857 in 1991/1992 to 31,460 in 1998/1999, and from 69,968 in 2004/2005 to 93,285 in 2006/2007. UNESCO published a report following the implementation of Ghana's Educational Reforms in 1987, there was a considerable demand for higher education (Effah, 2005). In the previous five years, the total number of students enrolled in public institutions (2008/2009), 107,640 in 2010, and 115,346 in the 2011/12 academic year. However, the World Bank has warned that most SSA countries may be unable to meet the demand for tertiary education.

Ghana's educational system adopted distance learning to provide access to tertiary education. It is characterized as a structured educational program in which the teacher and the students are separated physically. Many attempts have been made to meet Ghana's strong demand for university education. Private sector involvement, university campus development, and the advent of distance education are among them. As several attempts are made to discuss the ever-growing request for tertiary education in Ghana, the Ministry of Education (MOE) started primary research to evaluate the profits that come along with distance education. Private sector involvement, university campus development, and the advent of distance education are among them (NCTE, 2006, 2010).

As numerous efforts have been made to satisfy Ghana's increasing demand for university education, the MOE launched introductory research to

analyze distance education benefits. Private sector involvement, university campus development, and the advent of distance education were among them (NCTE, 2006, 2010). Ghana has ten public universities, 67 private universities with authorization, ten polytechnic schools, and a range of other professional institutions (National Accreditation Board, Ghana website, 2020). Around 5% of total tertiary enrollments are at private institutions and other professional schools (Effah, 2003). Their establishments, on the other hand, have aided in alleviating the rising problem of university admissions caused by inappropriate administrative management and inadequate infrastructure (Manuh, 2007). In Ghana, distance education was established as a viable alternative to tackle the problems of higher learning equity, quality, access and cost-effectiveness.

A lack of appropriate infrastructure at universities has rendered several Colleges of Education incapable of producing the required number of professors (Hatfield, 2017). As per DeJaeghere, Chapman and Mulkeen (2006), majority of Sub-Saharan African countries face a teacher shortage. The annual requirement for new teachers is between 13,000 and 16,000 individuals (Hatfield, 2017). They argued that this level of productivity would have to be maintained through 2010. However, that prognosis was not achieved, and it continues to be a difficulty in light of the current yearly total of certified teachers. Hence, it’s the government's duty to adopt substitute method to train eligible tutors in order to address the issue of teacher shortages in elementary schools.

Benefits of Distance Education

Distance education was used as a means of in-service training for professional upgrading for previously educated teachers and to train active but

untrained teachers in Ghana's primary schools to alleviate the country's teacher shortage (Robinson & Latchem, 2002). Teachers may see distance education as a more suitable way to study since it allows them to combine their teaching duties with college via remote education. Distance learning can minimize teacher turnover and the mobility of tutors from elementary to SHS or college schools after obtaining further credentials and expertise (Ofori-Attah, 2005). Distance education offers the potential to enable instructors to acquire topic knowledge at their leisure while maintaining their current position. Distance learners enrolled in sandwich programs may attend classes either on weekends or during school vacations. These alternatives relieve the stress associated with working and attending school concurrently. Additionally, online education is a good way to make higher education accessible to individuals who could not access it in obtaining a degree in the University. For instance, distance learning saves them travel time, travel expenditures, housing, and the flexibility to work while they learn.

Distance education is also chosen as an alternative because it has the potential to broaden learning frontiers by providing opportunities for collaborative research across Ghana's universities. It promotes international educational methods and prepares learners, administration, and faculty with the tools necessary to contest in a global context (Darkwa & Mazibuko, 2000). The establishment of I.C.T. centers on numerous university campuses around Ghana has expanded and continues to grow the use of new information technologies to supplement classroom instruction. For instance, information and research resources are now readily accessible to both teachers and students as well as the ability to connect with colleges located around the world.

Remote education can provide learning resources that people who are not in the same place as them can use. For people who have formal degrees, it gives them help and encourages them to keep learning for their jobs (Oppong-Mensah, 2008; Anamuah-Mensah & Erinosho, 2007). DE has also raised the number of students at universities, which has led to more money for universities and university staff. Among other things, distance education programmes have made money for the University of Cape Coast (UCC), University of Education Winneba (UEW), as well as Kwame Nkrumah University of Science and Technology (KNUST). There are several benefits of distance education, both for students and institutions; This includes;

Flexibility: Distance education allows students to study at their own pace and on their own schedule. This flexibility is particularly advantageous for those who have other commitments like work, family responsibilities, or other personal obligations.

Accessibility: Distance education breaks down geographical barriers and enables access to education for individuals who may not have the opportunity to attend traditional brick-and-mortar institutions. It allows students from different parts of the world to study without the need to relocate.

Diverse Course Options: Distance education offers a wide range of courses and programs, catering to various interests and career paths. Students can choose from an extensive selection of subjects and degrees, even if the desired program is not available locally.

Personalized Learning: Online platforms can track students' progress and provide personalized feedback, ensuring a more individualized learning

experience. Students can revisit content, review lectures, and access resources as needed, which contributes to a better grasp of the material.

Career Advancement: For individuals already in the workforce, distance education enables them to pursue further studies and acquire additional qualifications without sacrificing their jobs. This opens up opportunities for career advancement and professional development.

Better Work-Life-Study Balance: Distance education allows students to balance work, family, and study commitments effectively, leading to reduced stress and improved well-being.

Self-Discipline and Time Management: Distance education requires students to develop strong self-discipline and time management skills. These attributes are valuable in various aspects of life and can lead to increased productivity.

Challenges to Distance Education

People who run teacher education and distance programs need to have a lot of skills and keep learning (Asabere & Enguah 2012). This is different from traditional face-to-face instruction. Just like most countries, Ghana isn't rich and has problems with logistics that make it hard to run distance and teacher education programs. It is important to use technology in Africa's distance-learning programs to make them work well, for example (Saint, 1999). Another problem is that there is not always enough power and resources cannot be brought to universities that offer online education. These problems make it very hard for students and teachers to get both the face-to-face and print-format resources they need for effective classroom instruction. Another big problem for people who want to go to school from home is money. The Ghanaian government doesn't pay enough for online education programs at public

universities. To meet the needs of a steadily increasing number of students who have been accepted to college through distance learning, it is hard for colleges to offer programs that allow students to learn from home (Asabere & Enguah, 2012).

Distance education, also known as online or remote learning, has become increasingly popular over the years due to technological advancements and its flexibility. However, it also comes with its fair share of challenges. As per my observation, some of the main challenges to distance education include:

1. **Technological barriers:** Access to reliable internet connections, computers, or other devices can be limited, particularly in rural or economically disadvantaged areas. This lack of access can hinder students' ability to participate fully in online classes and access course materials.
2. **Digital literacy:** Not all students are equally comfortable or proficient with technology. Some may struggle with navigating online platforms, submitting assignments, or troubleshooting technical issues, which can impede their learning experience.
3. **Limited interaction and engagement:** Distance education may lack the face-to-face interaction that traditional classrooms offer. As a result, students might feel isolated and miss out on the social aspect of learning, leading to decreased motivation and engagement.
4. **Self-discipline and time management:** Online learning requires students to be self-motivated and manage their time effectively. Some students may find it challenging to stay focused and organized without the structure and accountability of regular in-person classes.

5. **Assessment authenticity:** Ensuring the authenticity of assessments and preventing cheating can be more challenging in a remote learning environment. Maintaining academic integrity is crucial, but it can be harder to monitor online exams and assignments effectively.
6. **Instructor availability:** Students may face difficulties in getting timely responses from instructors or engaging in one-on-one discussions due to the asynchronous nature of online learning.
7. **Course quality and design:** Not all online courses are created equally. Some may lack interactive elements, engaging content, or clear communication, which can impact the overall learning experience.
8. **Equity and inclusivity:** Distance education may inadvertently exacerbate existing inequalities. Students with disabilities, language barriers, or diverse learning needs might face additional challenges in accessing and benefiting from online courses.
9. **Lack of hands-on experiences:** Some subjects require hands-on learning experiences that are difficult to replicate in an online setting. Practical and laboratory-based courses may suffer in distance education formats.
10. **Initial resistance to change:** Some students, educators, and institutions may resist the shift to online learning, preferring the traditional classroom environment they are familiar with.

Efforts to address these challenges include improving internet infrastructure, providing technical support to students, offering training in digital literacy, designing engaging online courses, promoting inclusivity, and

encouraging open communication between students and instructors. Despite the challenges, distance education continues to evolve and plays a vital role in expanding access to education worldwide.

Characteristics of Distance Learners

A questionnaire was utilized by Qureshi, Morton, and Antosz (2002) to determine the essential features of remote education learners. They discovered important criteria that distinguish remote education students. Notable among these aspects are experiences, demography, difficulties, motivation and the surroundings of distance learners were among these aspects. To describe the characteristics of distance education learners, several researchers employed the Learning Style Inventory and Mental Measurements Yearbook (Barsch, 2006; Halsne & Gatta, 2002; Impara & Plake, 1998).

Educational background, learning style, demography, occupation, and course selection were found as relevant variables in identifying the characteristics of distance education learners. As a result of the foregoing, it is possible to conclude that research on the psychological and behavioural aspects of web-based learners is quite heterogeneous and lacks a consistent methodology. Distance learning differs from face-to-face learning in the sense that professors are separated by location and time, as well as the form of course delivery, students' assistance, and academic assessment.

Online distance learners must regulate their learning significantly more successfully, which frequently pushes them to be more self-directed and self-critical as they work toward the course objectives. According to Zimmerman (2002), critical psychological components of this form of learning include self-efficacy, learning motivation, success and failure attributions and learning

strategy. According to Wang (2006), motivation, self-efficacy, attributions and learning style, all form part of the fundamental psychological characteristics of distance learners. Apart from these psychological characteristics, the evidence reveals a preference for investigating learning outcomes. Oxford, Park-Oh, Ito, and Sumrall (2003) discovered motivation as a key factor among Japanese-language students who watched satellite television (Zhang & Sun, 2003). According to Romainville (2004) and Bessant (2007), successful usually know their studying procedures and tactics. Additionally, they discovered how instructional strategy relates to learning results.

According to Jegede and Fan (1999), distance learners' use of cognitive strategies was significantly connected to their metacognition. Despite this, it could not find out if high-scoring students employ more effective cognitive strategies than low-scoring pupils. According to Romainville (2004), good learning scores are connected with active metacognition in the cognitive process of online learners. Chen (2004) examined the association between distance learners' learning strategies and their learning results at Renmin University of China's Network Education College. The study revealed that the method of instruction employed had a significant correlation with the learners' individual outcomes.

Numerous other professionals have proven that high-achieving students can acquire support in effective ways (Ryan & Hicks, 2007). Zhang and Sun (2003) claim that self-directed learners are intimately related to those with good computing talents. Joo, Bong, and Choi (2000) underlined the critical role of learners' computer self-efficacy in determining the results of network learning. Jegede and Fan (1999) performed a comparative analysis of the characteristics

of distance learners, classifying them into a high- and low-mark group. They discovered that students who aspire to achieve high grades exhibit increased self-reliance, which is associated with improved learning outcomes, whereas Schunk (2009) discovered that some students have an adjustment system that allowed them to change their own achievement and self-efficacy potential.

According to current research, to achieve great learning outcomes, development of a learning plan is a critical components of learners' self-management that need to be given attention (Chiu & Hew, 2018; Yailagh, 2014; Pennell, 2011). How do these two traits, which are inherent to distant learners, impact learning outcomes? What is their connection? How do other critical personality traits, such as attribution and self-efficacy, influence learning outcomes? How are these psychological factors related? By examining these subjects, we will be able to identify certain psychological traits of adult distance learners, adapt instructional methods, and enhance facourable distance teaching techniques. Additionally, it may help in the growth of learners' motivation and method change. The cumulative effect of such study can also help improve learning capacities, allowing them to also increase their learning outcomes.

Psychological Needs of Distance Learners

Distance learning, like any other kind of education, may be used for several objectives, but it appears to be most beneficial for individuals who are unable or unwilling to engage in classroom training. Adults often choose distance education because of its "convenience, flexibility, and adaptability to meet the unique needs of individual students" because of their demanding work and family commitments, which prevents them from joining a traditional, full-time, face-to-face course on a set schedule (Holmberg, 2011, p. 24). When it

comes to learning, motivation, self-discipline and independence are all essential. But when it comes to distance education, where the student is primarily unsupervised and self-directed, these attributes are maybe even more crucial.

According to Hatfield (2017), maturity, high drive, and self-discipline are all important characteristics of satisfied and successful students. Although distance education is self-paced, the learner is not alone. According to Holmberg (2011), two-way communication occurs when students, tutors, and others linked with the sponsoring institution communicate via written or other mediated contact. According to Holmberg, "conversation is produced by the presentation of the subject matter if it is personal and encourages students to debate the contents with one another" (p. 27). It is possible to achieve this change by using an understandable presenting style. Kirkup and Jones (2013) argue that distant education courses cannot be presumed to succeed. Strict deadlines for tutor-marked projects and demanding learning content and resources are prevalent in remote education systems, but they are insufficient with respect to suiting learners needs (Keegan, 2010). The major shortcomings of remote education include; (a) rigidity in its study materials and approach (b) isolation and individualization of students (c) inability to enable dialogue like face-to-face education. of remote education (Kirkup & Jones, 2013).

As per Garrison (2015, p. 103), "the majority of distance education is concerned with meeting the educational needs of adults," and Holmberg (2011, p. 123), "distance teaching will increase student motivation, promote learning pleasure, and effectiveness if it is offered in a way that is relevant to the individual learner and his/her needs." Distance education enables students to

"study and learn in a peer-free environment, when and where they prefer" (Kickup & Jones, 2013, p. 27), while also offering direction, planning, and feedback during the learning process, all of which are important to ensure that students are motivated and their course is completed as well. According to a review of the studies, there is a substantial variance in student attitudes and satisfaction levels between distant and conventional learners.

Numerous studies have investigated student satisfaction in online education (Gouzouasis, 2019; Leximancer, 2018; Hatfield, 2017). One of the pressing fears of the distance learners is that there is no connection either between the lecturers and students or students and students. Kirkup and Jones (2013) state that children require discussion with their teachers and peers in order to consolidate and assess their learning. Chen (2011) corroborates this notion, stating that student-instructor conversation is a critical component of distant learning. Additionally, dialogue enables students to evaluate their progress and aids learners build a sense of belongingness amongst themselves as well as giving the institution the chance to evaluate teaching objectives whether are being achieved.

According to Bassant (2007), there is scant empirical evidence that mediated training is inferior to face-to-face instruction, concluding that "the instructional medium does not appear to make a significant impact in student success, attitudes, or retention" (p. 42). They argue that while media have a role in education, other elements such as learner traits, motivation, and instructional alternatives play a larger role. They suggest that these factors are very necessary to the procedures of distance teaching and learning as well as the aptitude of DE to meet students' needs. The importance of face-to-face encounters is

undeniable for the distance student; however, it may be more about the degree of interaction than whether or not any interaction occurs.

As Stone (2008, cited in Threlkeld & Brzoska, 2010, p. 47) "adult learners may perform better when they have control over not only where but also when learning occurs, and concludes that as long as students have some form of interaction with tutors, high-quality learning can still occur." The provision of adequate student support services is a very good way to cease the problem of lack of conversation in distance education. Tait (2014) defines student support as assessment and progress feedback, study skills development, advice or counseling, language support, administrative problem-solving and tutoring, whether in groups or individually with the goal of assisting students in their learning. Learner assistance is a critical component of distance education delivery, and three services consistently occur in the literature: accessing library materials, prompt learner feedback, and on-site aid.

Finally, online education requires access to library items. Many DE learners may not always have access to library materials. This obviously poses difficulties for the distant student. Schunk (2009) review of learner support stated that library materials are critical for distance learners since learners linked course success to access to library resource.

Academic Achievement

Academic Achievement in literature is defined in several ways. Examples of definitions include Simpson and Weiner (1991) and Hornby (2006), both of whom described it as a person's "capability to achieve a goal by work, talent or courage." Indeed, academic success is a sign of a well-rounded education and a gauge of a student's or group's overall academic performance

(Ali 2013). The ability of students to learn information or a specific level of capability in school duties, as measured by standardized examinations and presented as a grade or unit by teachers, was also defined by Ganai and Muhammad (2013) in a similar vein. Academic achievement is routinely evaluated by means of tests and evaluations. For the current study's purposes, it is the results of these experiments that have been incorporated.

It is vital to understand that a range of factors affect students' academic achievement. Ocho (2005) classifies these as economic-related, environmental-related, student-related and teacher-related factors. To begin, academic success is determined by students' personal traits, such as conscientiousness, personal effort, and motivation, as well as their mental aptitude, learning methodologies, and comprehension of academic goals. Additionally, family involvement and participation, family support, parental education, family income, socioeconomic level and siblings' school attendance all have a substantial influence on learner's academic success (Abubakar & Bada 2012; Majzub & Rais, 2010). Other variables include, institutional support, a suitable institutional climate for effective teaching, teachers' expectations and behaviour, effective instructors, the type of lecturers and their teaching approaches as well as class size (Khurshid (2014).

Gender Differences in Academic Achievements

According to Eze, Ezenwafor, and Obi (2015), a large number of studies on gender disparities have concentrated on disparities in academic attainment associated with various science courses. Reeve (2012) asserted that there are several competing viewpoints, which make it a contentious issue. Numerous studies have indicated considerable achievement discrepancies between males

and females, with males performing better than females in math and science and girls succeeding in literacy areas (Linn 2010). Other researchers have found that these disparities are not consistent. For instance, Ajai and Imoko (2015) did research on gender disparities in mathematics achievement. Their research discovered that both males and females' students can compete in mathematics since the difference in their mathematic achievement scores is not seen to be statistically significant.

Similarly, Voyer and Voyer (2014) conducted studies and discovered a little but significant female advantage in language courses and a negligible advantage in science and math. Voyer and Voyer (2014, p. 21) observed, "While gender differences on achievement tests generally follow established patterns, girls consistently outperform males in school grades regardless of subject." This means that, despite the prevalent belief that boys outperform girls on tests requiring logical reasoning, educators observe a female proclivity for success in scientific subjects that require logic and reasoning. Indeed, the purpose of our investigation is to evaluate the validity of this observation. While several studies have been conducted on gender success in the USA and many other Western countries, nearly no major examinations have been conducted in developing countries due to lack if secondary school statistics in these countries. As such, the goal of this study is to establish gender disparities in academic success. It is important to note that the objective of this research is not to strengthen existing gender inequalities, but to examine them to discover the underlying obstacles and problems that both males and females confront in reaching gender equality.

Males and females achieve academically differently, with males lagging behind females in Subject grades, high school graduation, and university

enrollment and completion are all factors to consider (Van Zanden, & Parker, 2018; Clark, Lee, Goodman, & Yacco, 2008). Male underachievement, according to Majzub and Rais (2010), is a major global concern. They discovered that girls outperformed boys in a lot of subjects, irrespective of them being a science major or minor student. Majzub and Rais also found that the circumstance deteriorated as learners moved from one level of education to the other with a 65–35 percent female enrollment ratio at the tertiary level.

Stereotype threat has been linked to male underachievement by Hartley and Sutton (2013), who found that children as young as four felt that adults thought men were intellectually inferior to women. Stereotype threat manipulation has been found to affect young children, with boys having a lower level of performance in reading, writing and math whilst they are told that girls normally perform better. Harley and Sutton found, on the other hand, that when boys were told they were on level with their female peers, their academic performance improved.

Theoretical Framework

The focus of this study is on the effect of self-determination skills of distance education students of CoDE of UCC on their academic achievements. Hence, the self-determination theory (SDT) was chosen as the theoretical framework for this study.

Overview of Self-Determination Theory

A common framework for studying classroom and educational laboratory engagement and motivation is the SDT. A few researchers have looked at how the behaviours of some clinical instructors can affect student motivation and engagement in the clinical setting. As a result of SDT's

robustness, it would also be an excellent framework for an inquiry into how self-determination skills affect the academic performance of students in distance education.

Over four decades of scientific study utilizing SDT as a guiding concept has shown that students gain when teachers connect in ways that validate their psychological needs. are supportive to their psychological needs (Reeve, 2002). They, on the other hand, suffer when their teachers destroy their psychological requirements (Bartholomew, Ntoumanis, Ryan & Thogersen-Ntoumani, 2011). Furthermore, I have a strong affirmation that this theory would shed some new light on the impact of self-determination skills on academic accomplishment of distance education students. Internal processes supply us with the energy and direction we need to act (Reeve, 2012).

Intrinsically driven actions that are carried out for the pleasure and satisfaction increase individuals' ability to perform. People who are intrinsically driven engage in things that they are interested in freely, with a strong sense of volition, and without regard for pecuniary rewards or restraints (Deci & Ryan, 2005). Intrinsically motivated behaviours are the most basic form of self-determination; they arise from within and are fully supported by the self. Extrinsically motivated activities, on the other hand, are of an instrumental nature; they are undertaken not for personal gain, but because they are seen to be necessary for the achievement of some specific goal (Deci & Ryan, 2005). In essence, intrinsically driven actions are innate and can lead to increased creativity, adaptability, and spontaneity, whereas extrinsically motivated behaviours are often conducted in reaction to external pressure and can lead to low self-esteem and worry. Internally motivated and externally motivated

activities can appear identical to an observer, despite their diverse sources. For example, one student may study hard in class because the subject is intriguing, whereas another student may work hard in order to obtain a reward for achieving a high grade (Valenzuela, et al 2018).

SDT proponents say that distinct sorts of externally generated motivation must be distinguished in order to differentiate between self-determined and controlled forms of motivation. Autonomous or self-determined motivation, according to SDT theorists, includes not just inner motivation, but also many forms of external motivation in which individuals identify the value of an activity and incorporate it into their sense of self (Knobbout et al., 2020; West et al., 2018). People who have intrinsic motivation have the capacity for conscious choice-making and self-advocacy for their actions. Controlled motivation, on the other hand, refers to extrinsic motivation connected to external stimulants such as rewards and punishments or a desire to obtain acceptance or avoid embarrassment. People behave in certain ways when they are manipulated and subjected to external pressure to behave, feel and think in certain manners (Deci & Ryan, 2008).

Internalization is essential in SDT because it allows a person to advance along a motivational continuum of self-regulation procedures connected with their sense of causality (Deci & Ryan, 2008). People have an intrinsic perceived locus of causality (PLOC) when they believe they are the initiators of their activities, whereas they have an external PLOC when they believe other factors are driving them to act in a certain way. According to SDT, internal motivation is the best type of self-determined activity in which people behave freely because the conduct provides intrinsic satisfaction. Intrinsically motivated

behaviours are kept by the sensation of interest and delight. A motivation is the least self-determined behavioural condition in which a person lacks a sense of personal causality and lacks the desire to perform.

Motivated people see a mismatch between their acts and their outcomes. The four extrinsic incentive approaches all result in deliberate activity, but their level of self-determination varies (Haber et al., 2016; Schwarting, 2011). Extrinsic regulation is the most controlling kind of external incentive. Extrinsically regulated behaviour is entirely controlled by monetary incentives or obedience to external authorities. Introjected regulation is less external in character and refers to self-imposed practices that are motivated by the state guilty but nonetheless leave the individual feeling governed by external forces. Intrinsic regulation, as opposed to extrinsically motivated conduct, is self-directed behaviour that emerges from the recognition and acceptance of an action's importance in reaching a desired end (Shogren et al., 2012). The most thorough kind of internalized extrinsic incentive is integrated regulation. When an individual reconciles one recognized value with other aspects of his or her personality, integration happens. In this case, external regulation has been turned into self-determination incentive.

Self-Determination Skills versus Academic Achievements

Recent advancements in Self-Determination Theory have demonstrated its applicability in an educational setting. In schools, colleges, and universities, the effect of motivation on both students and facilitators was assessed using the Self-Determination Theory framework. Gillet, Vallerand, and Lafrenière (2012) noted a surge in research demonstrating the importance of intrinsic and extrinsic memory in educational results. The capableness of learners and instructors who

were motivated or demotivated by academic outcome performance on an extrinsic and/or intrinsic level has been looked into using several research procedures. Thus, Self-Determination Theory fosters learners' engagement in the learning environment, as well as competency development and enhanced outcome performance (Ryan & Weinstein, 2009).

Technological improvements have benefitted education by boosting virtual learning activities for both instructors and learners and by increasing both instructors' and learners' motivation degrees. Studies have bolstered and boosted learners' performance and motivation using video games (Rigby & Przybylski, 2009). However, Ryan and Deci (2017), asserted that resorting to technology and delivery of lessons may create obstacles for participants, such as undue virtual time, an idea that the world without network is boring, compulsive internet use, difficulties regulating network time, feeling agitated if interrupted when online, and diminished social engagement and face-to-face conversation are all symptoms of excessive virtual time (Spencer, 2012). These barriers, however, are not universal, as other technology users benefit from them and are unaware of or unaware of them. The literature on intrinsic motivation reveals that it is commonly used to elicit information about why learners engage in virtual learning (Xie, DeBacker & Ferguson, 2006). In the context of virtual learning, intrinsic motivation is occasionally preferred to extrinsic drive. On an individual level, intrinsic drive is linked to behavioural persistence (Schneider & Kwan, 2013). Ryan and Stiller (2010), on the other hand, claimed that for educators, intrinsic motivation a critical phenomenon, a naturally occurring source of learning and achievement that can be extensively characterized

The required abilities for individuals who are exceptionally self-determined display perfect actualization of the concept's aspects. Self-determined individuals possess remarkable decision-making abilities (Hurley, 2010). They showed technical expertise, competence, and a grasp of the current problem and probable solutions. Through their normal decision-making techniques, they display their ability to choose an alternative from a restricted number of alternatives and also to make significant choices. Additionally, these folks have excellent problem-solving ability (Palardy & Rumberger, 2020). They offer objective solutions regardless of the nature of the problems they are confronted with.

Additionally, they exhibit a greater capacity for self-control and self-management. They take ownership of their own acts in their daily activities. Self-regulated and self-managing individuals exhibit a code of action that directs their behaviors, as well as self-understanding talents (Tran & Meacheam, 2020; Loeb et al., 2019). They are generally well aware of their potentials, capabilities, and flaws. Notably, they are constantly conscious of their nature and their rights. Again, self-motivated individuals are capable of setting goals. They ensure that their goal-setting activities are specific, quantifiable, dependable, and timely (Ghobary, 2007). Their cumulative talents correspond to the self-seven determination's components.

Empirical Review

Researchers examined a number of the evidence relating to SDT constructs and their associated results in the context of school-based physical education (Van nook Berghe, Vansteenkiste, Cardon, Kirk, & Haerens, 2014). But, none of the reviewed articles used a meta-analytic approach to examine the

tenets of the SDT-based motivational sequence model in the classroom teaching of physical education (Ryan and Deci, 2017). Ntoumanis and Standage's (2009) assessment was narrative in nature, whereas Van lair Berghe's (2014) review was systematic but omitted a meta-analysis.

Numerous researchers have examined a portion of the evidence, including SDT developments and their implications for actual classroom education (Van nook Berghe, Vansteenkiste, Cardon, Kirk, & Haerens, 2014; Chen, Chen, and Zhu, 2012; Ntoumanis & Standage, 2009;). Other reviews incorporate meta-analyses but are more focused on a single part of the model. Chatzisarantis et al. (2003) investigated the relationships between self-determined motivation, perceived competence, and intentions toward physical activity in exercise, sport, and physical education settings.

Achievement-motivated learners are more likely to demonstrate initiative and enthusiasm for academic tasks, as well as persistence in the face of failure (achievement motivation) (Bar-Tal & Bar-Zorah, 2007). Extrinsically motivated learners, on the other hand, rarely demonstrate a desire to change their academic performance for the better and they usually do not make any attempt to improve their attitude towards academic tasks unless they are persuaded by the offer of extrinsic rewards (Bar-Tal & Bar-Zorah, 2007). According to Atkinson (2015), and Deci and Ryan (2008), intrinsic motivation and achievement motivation are positively related, as intrinsically motivated learners are more likely to persist with tasks despite failure.

In summary, the preceding literature suggests that intrinsically motivated and achievement-motivated learners perform better on academic

tasks than extrinsically motivated learners. As a result, it can be assumed that motivation for achievement is positively related to academic achievement.

Previous Review

Conceptual Framework

Typically, SD is a composite of seven critical components determined to be necessary for overall skill acquisition (Ghobary, 2007). Collectively and individually, the seven dimensions of self-determination contribute significantly to the success of individual life activities. They cannot be seen as a separate entity from the self-determination paradigm in this capacity. To qualify as self-determined, an individual must possess all seven self-determination characteristics.

Ghobary (2007) asserts that the most fundamental aspect is decision-making. It refers to the capability of selecting between two well-defined alternatives. The ability is developed beginning in early stage of childhood, when parents may make children aware of opportunities to make the choices they preferred. The decision-making skills, which is the second aspect, is quite a complicated skill than just making a choice. It requires the collection of an option from a set of known options. It is primarily taught in elementary and early grade school, between the ages of three and four, and emphasizes concepts of alternative comparison. Although decision-making is a procedural skill that can be difficult to apprehend, it is a necessary one for education and extracurricular actions. Problem-solving is the third aspect, which is a necessary skill for all stages of development up to adulthood. It introduces a comparison element and the ramifications of various choices or alternatives.

The fourth aspect of self-determination ability is goal-setting and accomplishment skills. Persons should be able to set and work toward goals. These abilities contribute significantly to academic and professional success (Ghobary, 2007). Self-advocacy and leadership are the fifth component. It is the capacity to exhibit self-control over one's behaviour. These abilities are critical for enforcing affirmative action policies and discouraging undesirable behaviors, both in and out of school. The sixth characteristic is self-regulation and management. It entails controlling one's behaviour and actions from a central location. It is oriented around correct and beneficial behaviour. Finally, self-awareness and knowledge constitute the final component.

This study incorporated Ghobary's 2007 self-determination model. His model was founded on seven critical areas of self-determination, but this study focused on five: decision-making, choice-making, self-regulation management, goal-setting, and self-awareness and knowledge. The collective term "Choice-Making ability" refers to the capacity for making choices or demonstrating preference (Cho, Wehmeyer & Kingston, 2013). Instituting a choice as well as providing two or more options necessitates the provision of two or more options, making choice-making ability critical for developmental and educational needs. In practice, Choice-Making is the act of establishing one’s preferences; the ability enables students to take a decision-oriented approach when selecting activities to pursue (Goodman, Bains & Moussalli, 2010).

Self-determination requires a high level of decision-making ability (Katartzi & Vlachopoulos, 2011). It affects the amount of creativity, consideration, and weighing of the outcomes of various alternatives. Typically, decision-making entails selecting one alternative from a group of others after

weighing their probable consequences and know-how in achieving precise needs. It is a critical and procedural process that necessitates a careful and informed examination of a problem and its solutions. Unlike choice, where learners are presented with a predetermined option, decision-making requires learners to develop their own alternative solutions to issues (Cho, Wehmeyer, & Kingston, 2013).

Establishment of objectives and the development of plans leads to the fundamentals of goal setting and achievement (short- and long-term) (Katartzi & Vlachopoulos, 2011). Students enrolled in distance education, like regular students, frequently have broad goals. However, goal setting is critical to ensuring that students perform optimally as they progress through their educational needs. Establishing objectives provides them with a framework or a roadmap to success. There are four critical steps that are beneficial in assisting with goal setting and achievement success (Cho, Wehmeyer, & Kingston, 2013). Students' commitment to achieving their goals is increased when they write them down; as a result, they should place a premium on activities that contribute to their success (Pennell, 2011).

Self-management and self-regulation abilities are critical components of improving an individual's reinforcement scheduling (Ghobary, 2007). SD is defined as a person utilizing their strengths to battle their weaknesses and influence good attitude. Similarly, students' behaviour is improved when they develop self-management (SM) and self-regulation skills (SRS). SM and SR help students improve their behavior and, as a result, their academic performance. Self-Management students achieve high academic standards, demonstrate exceptional participation, and are actively involved in class.

Collectively, self-management and self-regulation abilities continue to be critical in the classroom and social settings (Ghobary, 2007). In contrast, self-management entails self-monitoring (Pennell, 2011).

Self-awareness is a critical factor of improving "self-determination," as it entails an individual's recognition of one's strengths, potentials, and shortcomings (Ghobary, 2007). Self-awareness serves as a tool for self-determination because it increases intrinsic motivation, dedication, and self-awareness. Additionally, the skills help to improve an individual's secondary abilities like emotions and general interactions with other people, communication and responses to insults as well as the development of problem-solving abilities when encountered in school or society (Ghobary, 2007).

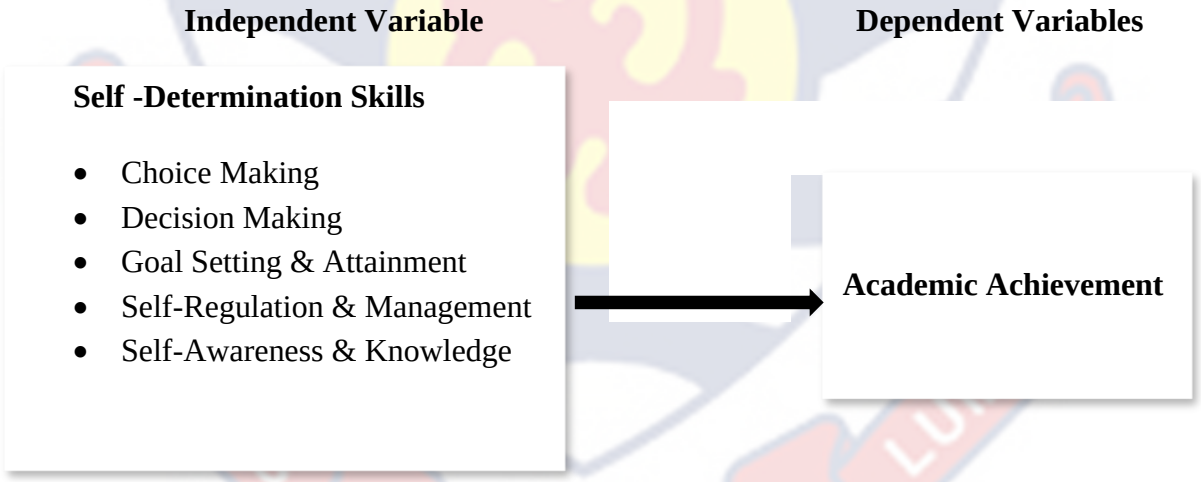

Figure 1: Association between SD skills and academic achievement of learners.

Chapter Summary

The review primarily concentrated on conceptual, theoretical, and empirical studies. The literature organization, which is based on SDT, clearly establishes a link between SD abilities and academic success. This corroborates

the study's assertion that self-determination skills may have an impact on the academic performance of distance education students. This review of the literature on self-determination for distance learners has numerous implications. Self-determination has been demonstrated to be a developmental trait. This implies that it evolves throughout a one's lifetime and is a process involving straight fields of continuous development. Also, this literature contains some glaring gaps. The largest part of SDT-based research on operative instruction has been examined only in the traditional classroom setting and most of them captures students with disabilities, particularly when it comes to promoting self-determination skills to improve teaching and learning. This study will fill these gaps in the literature by conducting an SDT-based investigation into the effects of self-determination on the academic achievement of distance education students.

CHAPTER THREE

RESEARCH METHODS

This chapter describes the methods that were used to obtain the relevant data for the study. Specifically, the research design, population, sample procedure and instrumentation used to conduct this study are stated in this chapter. It also includes the procedures, for data collection statistical method for data analysis and ethical considerations. Finally, the chapter summary was presented.

Research Design

Research design, as explained by Zack (2020), is the entire strategy used to carry out research. It establishes a clear and logical strategy for addressing established research questions via data collection, interpretation, analysis, and discussion. The major types of research design include descriptive, correlation, experimental, review and meta-analytic designs. The case-study, naturalistic observation and survey are sub-types of descriptive design. The study used a descriptive survey design to determine the effects of self-determination skills of second year diploma in basic education distance education students on academic achievement of UCC and their academic achievements. Apart from identifying particular characteristics of the respondents (that is the self-determination skills), the survey questionnaire was used to collect quantitative data, hence the use of the descriptive survey design.

Descriptive research is used to present a situation as it occurs naturally (Burns & Grove, 2003). It can also be used when defending a present practice, form judgements, and develop theories. Additionally, descriptive research gives account of the data and traits of the population of the study. It answers the

questions of who, what, where, when and how. It is appropriate to use when the study's goal is to figure out characteristics, frequencies, trends, and categories. The purpose of descriptive research is to elicit information about the present condition of a phenomenon and to describe "what exists" in terms of variables in a situation.

Study Institution

The College of Distance Education, formerly Centre for Continuing Education (CCE), was set up in 1997 and on the 1st of August 2014, it was upgraded to the status of a college. The College of Distance Education (CoDE) was established to offer chances for prospective students to further their education to a level; train more professional teachers for all levels of education in the Ghana Education Service (GES). The College has Academic Units in Education, Business, Arts and Social Science and Mathematics and Science. Programmes that lead to the award of diploma, bachelor and post-graduate degrees. Presently, CoDE has 95 study centres in all 16 regions of Ghana (retrieved from; https://code.ucc.edu.gh/academics/study-centres), that run 34 programmes with a total student population of 49,667 (retrieved from; https://code.ucc.edu.gh/about-us/who-we-are). The Study centres are managed by Study Centre Coordinators working under Regional Coordinators. The learning centre Coordinators are responsible for the day-to-day administration of the centres and course tutors.

This study was conducted in Kumasi Metropolis. Kumasi is a city found in the Ashanti Region of Ghana. CoDE has six study centres in Kumasi Metropolis. These are Kumasi Technical Institute (business and education), Wesley College of Education, Kumasi Senior High Technical School, Serwaa

Nyarko Senior High School, Simms Senior High School and T. I. Ahmadiyya Senior High School. All the study centres offer Diploma in Basic Education except Wesley College of Education learning centre. Programmes offered across the study centres in Kumasi include a Diploma in Basic Education, Diploma in Mathematics Education, Diploma in Science Education, Diploma in Business Education, Diploma in Psychology Foundation, 2-Year Bachelor of Commerce (Human Resource Management), a 3-Year Bachelor of Commerce (Finance), 5-Year Bachelor of Education Programme in Early Childhood Education and 5-Year Bachelor of Education in Primary Education (retrieved from; https://code.ucc.edu.gh/) The existence of these study centres in Kumasi has given learners the opportunity to education within their catchment areas instead of travelling to other regions. It has also given employment to certain categories of people in Kumasi Metropolis such as course tutors and food vendors.

Population

The target population of a study is the entire group of people or objects that the researcher will generalize the study findings to. The population target for the study was all DBE distance education students of CoDE of UCC offering a Diploma in Basic Education in the Kumasi Metropolis. At the time of the study, there were 43,386 undergraduate distance students of which 29,566 were offering diploma programmes (retrieved from; https://www.ucc.edu.gh/main/about/history). Thus, this study's target population was 29,566 students.

The accessible population was all second year DBE distance education students of CoDE of UCC in the Kumasi Metropolis. The number of final-year

students studying DBE in Kumasi is 2,205 (CoDE Regional Office in Kumasi, 2020).

Table 1: Accessible Population of Second Year DBE Students of CoDE, UCC in Kumasi

SN	Learning Centre	Number of Students
1	Kumasi Technical Institute	502
2	Kumasi Senior High Technical School	427
3	Serwaa Nyarko Senior High School	391
4	Simms Senior High School	350
5	T. I. Ahmadiyya Senior High School	535
Total		**2205**

Source: CoDE Ashanti Regional Office (2021)

Sampling Procedure

The term "sample size" is the total number of people who were used in the research study so as to represent the total population. The sample size has an impact on two statistical properties which includes, the preciseness of the estimates and the study's ability to reach conclusions. Results of high validity will not be obtained or the population will not be adequately represented if the sample size is too small. Whilst lower margins of error and high representativeness can be obtained when larger sample sizes are used, an excessively large sample size can significantly increase the cost and time required to conduct the research.

A sample size of a study eases the sampling error, which is unavoidable though. Since the population size of this study was known (finite), the application of Yamane's formula was used to the calculated the sample size.

Yamane's (1967) simplified formula for the calculation of sample size from a finite population was adopted.

$$n = \frac{N}{1 + N(e^2)}$$

Where;

is the equation the;

N is the population; and

e^2 is the level of precision

For this study, the population is 2,205 with ± 5 precision. There $N = 2{,}205, =$ 0.5 and a confidence level of 95%; the sample is calculated as:

338.58

From the above, the sample size for the study was 338 Diploma in Basic Education distance education students of College of Distance Education of the University Cape Coast in Kumasi Metropolis.

The sampling for this study was conducted in two phases: The purposive sampling was employed to select second year distance education students offering diploma in basic education in the five centres of CoDE (UCC) in Kumasi. Since the Cumulative Grade Point Average (CGPA) of the respondents was used as a measure of the academic achievements, it was appropriate to purposely select second-year distance education students of CoDE (UCC) offering diplomas in basic education. From the second year onwards, the respondents for the survey were chosen using a simple random selection procedure.

After dividing the population in each of the selected school into stratification variables, the researcher requested for the list of all students in the

five study centres and randomly selected participants for the study. The researcher pinpointed the participants in the list of students without looking at the names. Thus, simple random technique (lottery method) was then used to enrol the participants for the study. This is an old classical method but it is a powerful technique. The sample frame was obtained from the school list of all the DBE in the respective study centres. All the units of the population were numbered on a sheet of paper to form the sample frame. The papers were mixed thoroughly (in a fish bowl) for the participants to pick at random. This process will continue until the desired sample size was attained. The number of respondents from each of the centres in Kumasi was distributed as shown in Table 2, using the method of proportionality after calculating the value of the sample size;

Table 2: Sample Size of Second Year DBE Students of CoDE, UCC

SN	Centre	Number of Respondents
1	Kumasi Technical Institute	77
2	Kumasi Senior High Technical School	65
3	Serwaa Nyarko Senior High School	59
4	Simms Senior High School	53
5	T. I. Ahmadiyya Senior High School	84
	Total	**338**

Source: CoDE Ashanti Regional Office (2021)

Data Collection Instruments

Data is a collection of values for qualitative or quantitative variables. Data collection can be accomplished via a primary or secondary source (Mesly, 2015). While primary data are collected by the researcher directly from the

respondents of the study to address specific question or hypotheses, secondary data are data that have been collected in the past by someone else but made available for others to use. Secondary data sources cover a wide range of areas such as existing literatures, reports, documents, articles and journals.

Primary data collection can be said to be time consuming and quite expensive as compared to secondary data collection, notwithstanding, the study relied on primary data sources because of its suitability for descriptive survey research. It was suitable for the collection of data on the self-determination skills of the respondents and their self-reported CGPA. Primary data are collected through field observation, focused group, interviews, discussion and survey questionnaire. The primary data for this study was collected by self-administered questionnaire.

The questionnaire was used because the researcher considered it to be of convenience to the respondents as they could answer it at their comfort. (See Appendix 1), as well as its suitability in the collection of quantitative data. Survey questionnaires also produce results that are easy to summarize, compare and generalize. Personal interviews and observation would not have permitted the level of fairness that the anonymous survey did due to the duration and nature of the study. Furthermore, focus groups, observations and interviews could bring inconsistency and unfairness into the survey questionnaire administration, and the resulting data would have not supplied the concrete data needed for statistical analysis. The questionnaire was created in response to the study questions and the literature that was accessible.

The survey approach was used to acquire quantitative data, which was in line with the study's objectives. To collect quantitative data from the

respondents, a closed-ended structured questionnaire was developed and employed. The survey approach is used because it describes the features of the study's population, which serves the research's aim, and thus it was suited for evaluating the study's objectives. According to Kreamer (2007), the survey method is used to give a quantitative description of the specific characteristics of a given population. These characteristics often include the study of the relationships between variables, thus the data required for survey research are collected from respondents and are therefore subjective. This study examines the effects of self-determination skills (independent variables) on the academic achievements (dependent variable) of DBE distance education students of CoDE of UCC, hence the use of survey method as the instrument for data collection.

The data collection instrument used for this study is a self-administered research questionnaire. The development of the questionnaire was preceded by certain prerequisites; the purpose of the study which was carefully and defined and the objectives of the study which were translated into quantitative contributing factors to the purpose of the study (Salant & Dillman, 2004). Items on the questionnaire may be open-ended or closed-ended. While open-ended items allow participants to respond to a posed question in a way they wish, closed-ended items allow participants to choose from a set of options to respond to a posed question.

The closed-ended items were used since they are quick and simple for responders to complete, yet they are more complicated to design because they must offer a suitable range of response alternatives. Also, they were used because the researcher was seeking the respondents' level of agreement with the

statements and frequency of particular behaviour that sought to measure their level of self-determination skills. Finally, closed-ended items were used because the variables of the study were well defined, both the self-determination skills and the academic achievements of the respondents.

In this study, two different measures were utilized, both the dependent and independent variables; academic achievements and self-determination skills, respectively. The academic achievements of the respondents were measured using their respective self-reported CGPAs though there are other indicators such as the number of credits earned or class ranking. The CGPA was used as a result of the setting of the distance education programme of CoDE of UCC; moreover, the respondents were still in school. Again, the CGPA was employed to measure the academic achievements of the respondents because it is the most widely used measure of academic accomplishment, it is freely accessible, and since it allows students to compare themselves objectively and efficiently, it was chosen for this research. A 5-point Likert Scale questions were used to assess the self-determination skills of the respondents. The questionnaire contains six sub-sections which include the demographic background of the respondents and the five self-determination skills (see figure 3.1) considered for this study. The question was modelled based on the Self-Determination Students Scale (SDSS) developed by Hoffman, Field and Sawilowsky in 2004. The model contains five components which include; knowing yourself, value yourself, planning, act and experience outcome and learning. Respondents are supposed to provide answers to each item statement with “That’s me” or “That’s not me”.

Measurement of Variables

Variables can be measured or classified, and their values fluctuate within units, or over time. Categorized variables are qualitative in character, while measured variables are quantitative in nature. There are basically two classifications of variables; dependent and independent variables. The latter are variables that can cause a dependent variable to change. Examination of the relationship between two or more variables is the main focus of a quantitative research.

The goal of the study was to examine the effects of self-determination skills on the academic achievements of students of the College of Distance Education, studying Diploma in Basic Education in Kumasi metropolis. Hence, the main variables for this study were SD skills and the academic achievements of the respondents. The academic achievements measurements were the dependent variables, while the measurement of the SD skills of the respondents was the independent variables.

The scale of measurement for the variables used in the study was ratio scale of measurement. The ratio scale is the most accurate of the four levels of measurement, which include nominal, ordinal, interval, and ratio scales.

Validity of the Instrument

'Validity" refers to the level of correctly quantifying an idea in a quantitative investigation (Heale & Twycross, 2015). The first classification is that of content validity. This category assesses whether the instrument appropriately captures all of the information that should be covered by the instrument about the variable. Face validity is a subset of content validity, in which experts are asked their judgement on whether an instrument accurately

assesses the notion intended. Construct validity relates to the ability to make conclusions about test scores associated with the investigated idea. Correlation analysis was used to ascertain the degree to which the various instruments assess the same variable, given the data for this investigation were quantitative.

Reliability

As per Drost (2011), reliability is the extent to which measurements are repeatable when different people perform the measurement on different occasions, under different conditions, supposedly with alternative instruments which measure the construct or skill. The ability of a phenomena to give consistent results any time is measured is known as reliability. (Moser & Kalton, 1989; Carmines & Zeller, 1979).

According to Huck (2007), testing for dependability is critical since it pertains to the consistency of a measuring instrument's components. When the items on a scale "hang together" and measure the same construct, it is considered to have high internal consistency dependability (Huck, 2007, Robinson, 2009). The Cronbach Alpha coefficient is the most often used internal consistency metric. It is regarded as the most acceptable measure of dependability when Likert scales are used (Whitley, 2002, Robinson, 2009). Although there are no absolute standards for internal consistency, the majority agree on a minimum internal consistency coefficient.70 (Whitley, 2002, Robinson, 2009).

Cronbach's alpha (α) was utilized to assess the internal consistency of the research instrument in this study. The average of all correlations in each combination of split-halves is determined in this test. This exam can be used with instruments that have questions with more than two responses. Cronbach's

alpha is a value between 0 and 1. A dependability score of 0.7 or above is considered satisfactory.

Data Collection Procedures

Primary data was gathered from the final year DBE students of CoDE of UCC for the study. A permission letter was written to the Acting Registrar of CoDE of UCC through the Ashanti Regional Coordinator to obtain institutional approval three months before the date set for the data collection. Another set of letters were written to the coordinators of the six learning centres of CoDE in Kumasi after approval for the data collection was given a week after the permission letter was written to the Acting Registrar. The approvals from the learning centres Coordinators were also obtained on the same day that the letters were delivered personally by the researcher. Information on the number of final-year DBE students who normally attend lectures was obtained on the day of deliveries of the approval letters at all the learning centres.

A pilot study was conducted with 30 respondents from the T. I. Ahmadiyya Senior High School learning centre to look out for related errors that could affect the reliability of the data collected. The respondents used for questionnaire pre-test were DBE second-year students who were not part of the sample size. Most importantly, at the pre-test stage, the researcher looked out for the frequency distribution of responses to check if some items or indicators might appear constant in terms of responses or lack heterogeneity of responses. Such items would be dropped or reworded appropriately.

The researcher visited the study centres a week before the data collection date to remind the study Centres Coordinators of the impending exercise and also sought the consent of the students before they were included in the study.

The lottery method was used to pick respondents at random. Each member of the population was assigned a number after which numbers were drawn from the box randomly to choose samples. The participants were made aware of the reason for the study to remove any doubts they may have had, and they were urged to be objective in their comments because they were assured of secrecy. The structured closed-ended questionnaire was administered personally by the researcher. Clarification was given by the researchers to all respondents who sought one.

Data Processing and Analysis

This was done to guarantee that the data obtained was free of preventable errors. Completeness, accuracy, and consistency of the returned self-completion questionnaires were verified. This included editing, coding, data cleaning, and data entry, all of which were performed using SPSS version 25.0. It was determined that each respondent had answered each question completely and accurately (in the sense that appropriate responses had been given to the questions). Graphs and descriptive statistics like mean and percentages were used to analyse objective one which was to identify the self-determination skills of the respondents. The independent sample t-test was ran using SPSS to determine the difference in the academic achievements of the male and female respondents. This was done to achieve the Objective two. Again, the Cohen D was calculated to determine the extent of the difference if any. The SPSS was used to conduct a simple linear regression analysis to determine the effect of self-determination skills of the respondents on their respective academic achievements.

Ethical Considerations

The consent of all the respondents were appropriately sought before their involvement in the research. Participants were briefed on the purpose of the study in order to ensure informed consent and participation in the recruitment processes. Respondents were given a written consent form to read and sign or thumbprint if they wished to participate in the study. This was accomplished through the signing of appropriately designed consent forms. Throughout the data collection process, confidentiality and anonymity was strictly enforced. Finally, respondents will be assured that their responses was kept private.

Chapter Summary

The goal of this study was to determine the effect of self-determination skills on the academic performance of distance education students studying DBE at UCC's CoDE in Kumasi. The study used a descriptive survey design. The Kumasi Metropolis is has six CoDE UCC study centres. The study's respondents were chosen in two stages. All final-year DBE students were selected using the purposive sampling technique, and the final respondents were chosen using the simple random sampling technique. Yamane's (1967) simple formula for calculating sample size was utilized to determine the sample size for the study, which is why the method of proportionality was also employed to determine the sample size for each study center in the Kumasi Metropolis.

To acquire primary data from respondents, a systematic closed-ended survey form was constructed. The questionnaire was designed to elicit information on respondents' self-determination abilities and academic accomplishments (CGPA). The study's independent variable was self-

determination skills, whereas the study's dependent variable was CGPA. Both the dependent and independent variables were measured on a ratio scale. The validity of the data collection instrument was determined using statistical correlation, whilst Cronbach's alpha was used to determine the study instrument's dependability. Ethical considerations included respondents' comprehension of the study and data confidentiality. Finally, data were gathered using a statistical technique. The data collected were analyzed and discussed using both descriptive and inferential statistics.

CHAPTER FOUR

RESULTS AND DISCUSSION

The chapter presents the findings from the data collected from the respondents through the administration of a structured close-ended questionnaire. It also presents an analysis and explanation of the data collected findings. The study aimed at examining the effect of self-determination skills on the academic achievements of distance education students of CoDE of UCC, pursuing a 3-year Diploma in Basic Education. Though a sample size of 338 second year UCC CoDE students offering DBE were selected from five course centres in the Kumasi Metropolis, the final sample size used for the analysis of the study was 300. Thirty-eight of the returned self-reported questionnaires were not fit for purpose since their CGPAs were wrongly reported. Descriptive survey design was used to investigate the impact of self-determination on the academic achievements of the respondents. Various statistical techniques were adopted to answer the three research questions.

Analysis and Discussion of Results

The demographic background of the respondents was discussed. This is to assess the extent or degree of the validity and reliability of the data collected. The demographic background comprises the course centres, age and gender distribution of the respondents. Furthermore, the section discusses the findings of the research questions.

Demographic Background of the Respondents

Course Centre of the Respondents

Results in figure 2 depict the study distribution of the respondents in the study centres. The course centres were T. I. Ahmadiyya Senior High School (T.

I. Amass), Serwaa Nyarko Senior High School (Serwaa Nyarko), Kumasi Technical Institute (K.T.I.), Kumasi Senior High Technical School (K.S.T.S.) and Simms Senior High School (SIMMS). T. I. Amass Course Centre accounted for 25% of the total number of respondents (84).17% of the total number of the respondents, representing 59 respondents were from Serwaa Nyarko Course Centre. 23% of the total number of respondents, representing 77 respondents were from K. T. I. Course Centre. 19% of the total number of the respondents, representing 65 respondents were from K. S. T. S. Course Centre. Finally, 16% of the total number of respondents, representing 53 respondents were from SIMMS.

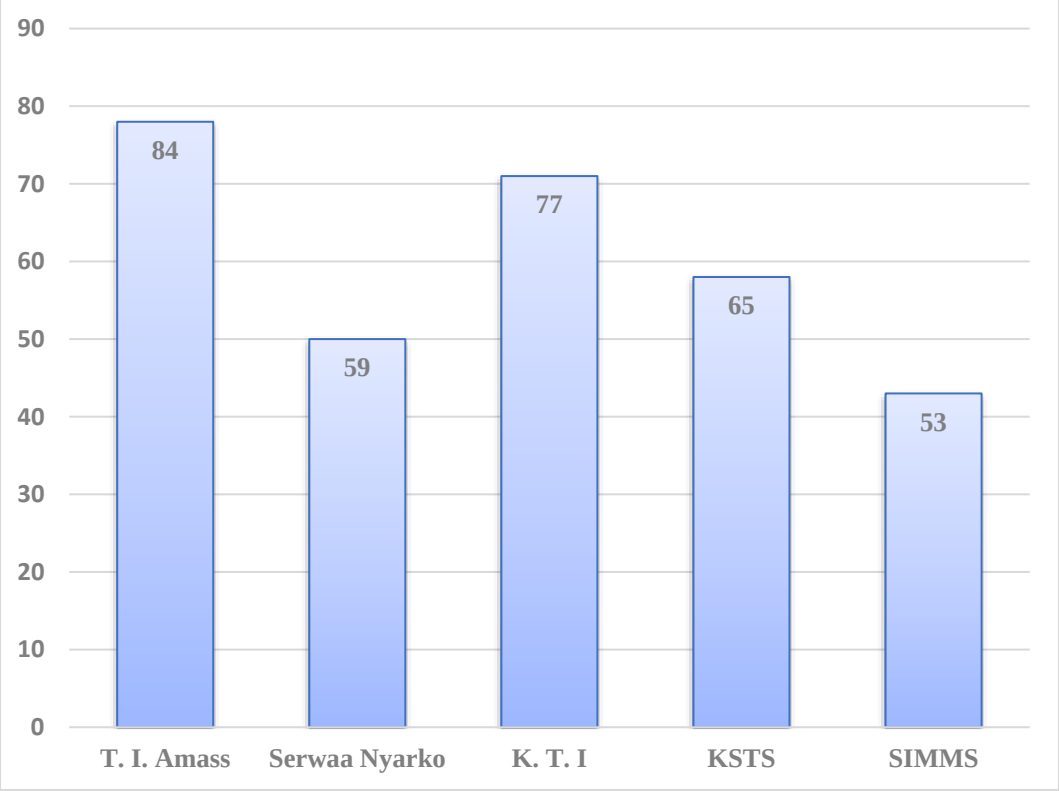

Figure 2: Course Centre Distribution of the Respondents

Source: Fieldwork (2021)

Age Distribution of Respondents

Results in figure 3 show the age distribution of the respondents. About 3% of the total number of people who responded, were below the age of 20 years. Also, 38% of the total number of the respondents, representing 114 representing respondents, were from the ages 26 to 30 years. However, 20% of the total number of respondents, representing 60 respondents, were from the ages of 31 to 35.

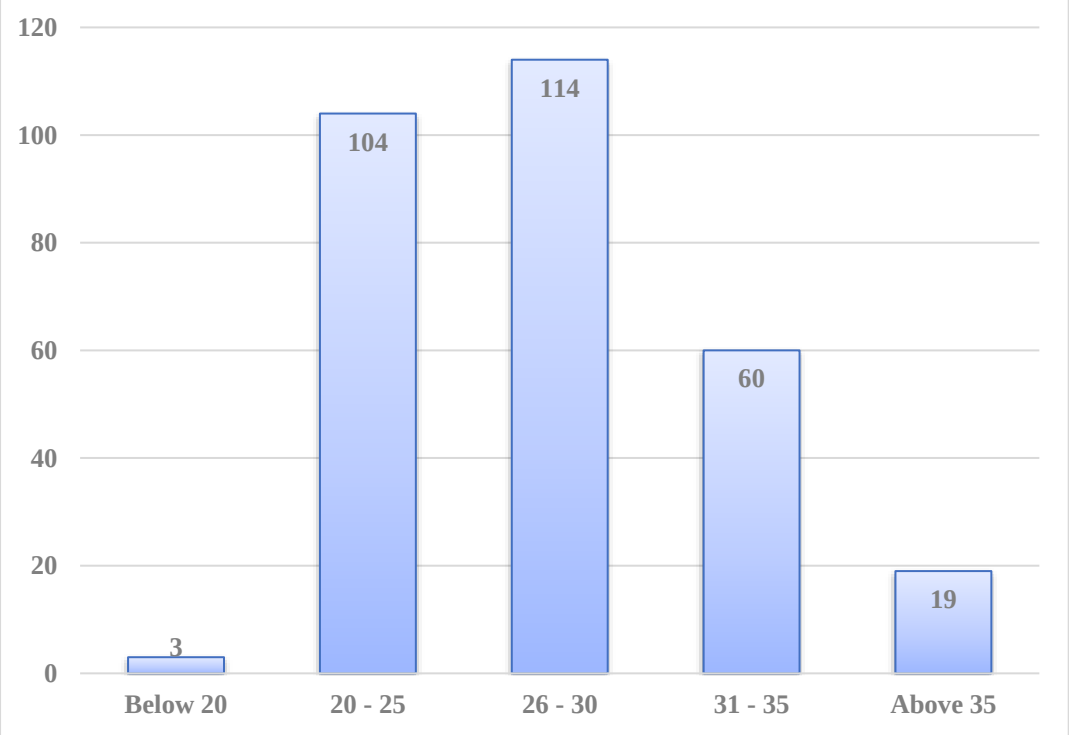

Figure 3: Age Distribution of Respondents

Gender Distribution of Respondents

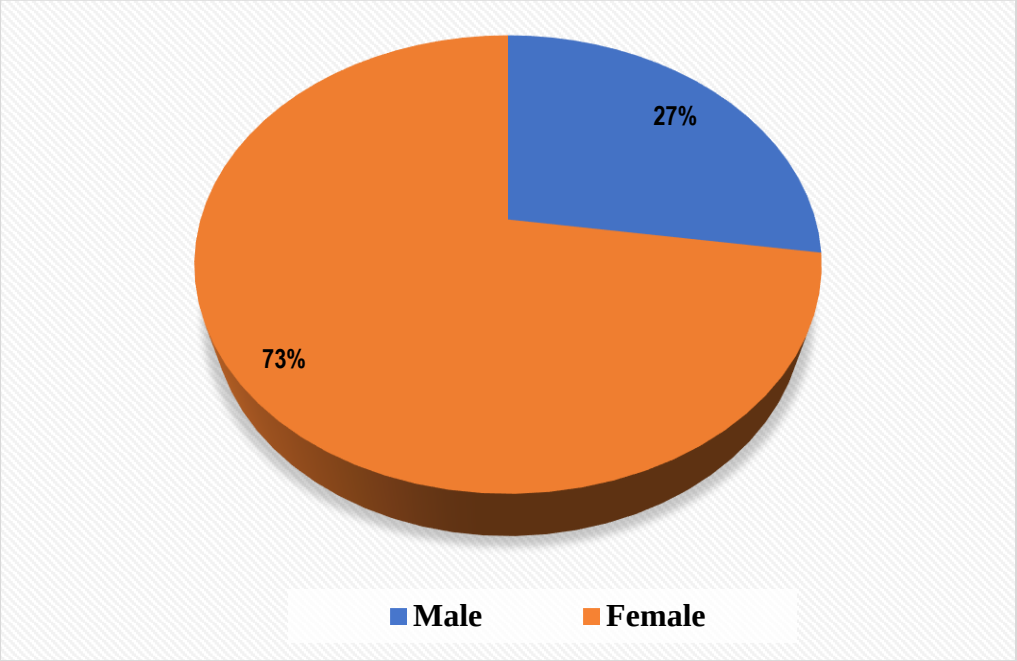

Figure 4: Gender Distribution of Respondents

Figure 4 illustrates the gender distribution of the respondents. 73% of the total number of the respondents, representing 219 respondents, were females, while 27% of the total number of the respondents, representing 81 respondents, were males. Implying there were more female respondents than male respondents.

Research Question One

What are the Self-Determination Skills of Second Year DBE Distance Education Students of UCC in the Kumasi Metropolis?

The respondents were requested to provide responses to the following sets of questions to identify their self-determination skills using a five-point Likert Scale: Never (N)-1; Almost Never (NA)-2; Sometimes (S)-3; Almost Always (AA)-4; Always (A)-5.

Choice-Making Skills

Table 3 illustrates the responses of the respondents to each statement to determine their choice-making skills. Out of the total number of 300 respondents, 192 respondents representing 65%, showed that they select institutions of study after consultation. 80% of the respondents, representing 240 respondents, indicated that they chose their programmes of study based solely on their abilities. 76% of the total number of respondents, representing 228 respondents, reported that they studied privately when they want. 88% of the respondents, representing 264 respondents, indicated that they identify activities or materials for a given activity. 84% of the respondents, representing 252 respondents, indicated that they chose what to eat and when to eat. Averagely, 78% of the total number of respondents, representing 235 respondents, said that they possess choice-making skills.

Table 3: Choice-Making Skills of Distance Education Students'

Statement	Response											
	N		NA		S		AA		A		Skills	
	F	%	F	%	F	%	F	%	F	%	F	%
I select institutions of study after consultation	66	22	42	14	60	20	48	16	84	28	192	65
I choose my programmes of study based solely on my abilities	48	16	12	4	48	16	78	26	114	38	240	80
I choose to study privately when I want	36	12	36	12	24	8	66	22	138	46	228	76
I identify activities or materials for a given activity	6	2	30	10	60	20	84	28	120	40	264	88
I choose what to eat and when to eat	30	10	18	6	30	10	48	16	174	58	252	84
Average											235	78

Source: Fieldwork 2021

Decision-Making Skills

Table 4 depicts respondents' responses to the following to determine their decision-making skills. Abou 222 respondents, representing 74%, indicated that they set goals to get what they want or need, and also think about what they are good at when they do this. 76% of the respondents, representing 228 respondents, indicated that they figure out how to meet their goals and also make plans and decide what they should do. 84% of the respondents, representing 252 respondents, indicated that they begin working on their plans to meet their goals as soon as possible and also know what they need, what they like and what they are good at. However, 240 respondents, representing 80% indicated that if their plan does not work, they try another one to meet their goals.

Table 4: Decision-Making Skills of Distance Education Students'

Statement	Response											
	N		NA		S		AA		A		Skills	
	F	%	F	%	F	%	F	%	F	%	F	%
I set goals to get what I want or need. I think about what I am good at when I do this.	42	14	36	12	42	14	66	22	114	38	222	74
I figure out how to meet my goals. I make plans and decide what I should do.	30	10	42	14	48	16	60	20	120	40	228	76
I begin working on my plans to meet my goals as soon as possible.	12	4	36	12	60	20	54	18	138	46	252	84
I know what I need, what I like, and what I'm good at.	6	2	42	14	48	16	90	30	114	38	252	84
If my plan doesn't work, I try another one to meet my goals	30	10	30	10	36	12	30	10	174	58	240	80
Average											238	79

Source: Fieldwork 2021

Goal Setting and Attainment Skills

Results from table 5 depict the responses of the respondents to the following statements to determine their goal setting and attainment skills. Roughly 90% of the respondents, representing 270 respondents indicated that they believe that they set goals to get what they want. About 92% of the respondents, representing 276 respondents, indicated that they like to make plans to meet their goals. 94% of the respondents, representing 282 respondents, indicated that they begin working on their plans to meet their goals as soon as possible. Also, 84% of the respondents, representing 252 respondents, indicated that they begin to work on their plans right away. Again, 90% of the respondents, representing 270 respondents, indicated that they are willing to try another if it helps them to meet their goals. On the average, 90% of the respondents, representing 270 respondents possess goal setting and attainment skills.

Table 5: Goal Setting and Attainment Skills of Distance Education Students'

Statement	Response											
	N		NA		S		AA		A		Skills	
	F	%	F	%	F	%	F	%	F	%	F	%
I believe that I can set goals to get what I want.	12	4	18	6	42	14	42	14	186	62	270	90
I like to make plans to meet my goals.	12	4	12	4	36	12	66	22	174	58	276	92
I begin working on my plans to meet my goals as soon as possible.	6	2	12	4	54	18	66	22	162	54	282	94
I like to begin working on my plans right away.	18	6	30	10	30	10	60	20	162	54	252	84
I am willing to try another way if it helps me to meet my goals.	12	4	18	6	48	16	60	20	162	54	270	90
Average											270	90

Source: Fieldwork 2021

Self-Regulation and Management Skills

Table 6 depicts the responses of the respondents to the following statements to determine their self-regulation and management skills. About 70% of the respondents, representing 210 respondents, indicated that they participate in small and large group activities. Again 86% of the respondents, representing 258 respondents, indicated that they complete assignments on time. Also, 86% of the respondents, representing 258, indicated that they follow the lecture rules and routines. 86% of the respondents, representing 258 respondents, indicated that they ask for help at appropriate times. Sixty-six percent of the respondents, representing 198 respondents, indicated that they do the opposite of what they fell like doing. Averagely, 79% of the respondents, representing 236 respondents possess self-regulation and management skills.

Table 6: Self-Regulation and Management Skills of Distance Education Students'

Statement	Response											
	N		NA		S		AA		A		Skills	
	F	%	F	%	F	%	F	%	F	%	F	%
I participate in small and large group activities.	60	20	30	10	96	32	30	10	84	28	210	70
I complete assignments on time.	30	10	12	4	24	8	120	40	114	38	258	86
I follow the lecture rules and routines.	12	4	30	10	60	20	48	16	150	50	258	86
I ask for help at appropriate times.	30	10	12	4	30	10	120	40	108	36	258	86
I do the opposite of what I feel like doing	72	24	30	10	60	20	48	16	90	30	198	66
Average											236	79

Source: Fieldwork 2021

Self-Awareness and Knowledge Skills

The result from Table 7 depicts the responses of the respondents to the following statements to determine their self-awareness and knowledge skills. Also, 80% of the respondents, representing 240 respondents, indicated that they defend their interests and needs when being questioned. 88% of the respondents, representing 264 respondents, indicated that they do not feel constrained by others' opinions. About, 92% of the respondents, representing 276 respondents, indicated that they are motivated to use whatever approach to get it right. However, 84% of the respondents, representing 252 respondents, indicated that they schedule their own activities and they are confident they can complete them accurately and on time.

Table 7: Self-Awareness and Knowledge Skills of Distance Education Students'

Statement	Response											
	N		NA		S		AA		A		Skills	
	F	%	F	%	F	%	F	%	F	%	F	%
I defend my needs and interests to anyone who questions them.	30	10	30	10	48	16	72	24	120	40	240	80
I do not feel constrained by others' opinions in setting goals and expectations for himself.	6	2	30	10	78	26	66	22	120	40	264	88
I often consider my parents' suggestions when making choices and plans, but the final plans taken to meet my goals are my own.	24	8	36	12	48	16	72	24	120	40	240	80
I am motivated to work on a project as long as it takes, using whatever approaches are necessary, to get it right.	6	2	18	6	36	12	60	20	180	60	276	92
I schedule my own activities; I am confident I can complete them accurately and on time	24	8	24	8	18	6	60	20	174	58	252	84
Average											254	84

Source: Fieldwork 2021

Research Hypothesis Two

H_0: There is no statistically significant difference in the academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis.

H_1: There is a statistically significant difference in the academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis

Independent samples t-test was conducted, using SPSS, to determine the difference in the academic achievements of the female and male respondents. The CGPAs of both groups were used as the two independent variables.

Table 8: Paired Sample T-test

	Mean	N	Std. Deviation	Std. Error Mean	Correlation	Sig.
Female	3.8651	219	.57420	.09706	-.247	.153
Male	4.1669	81	.60638	.10250	-.247	.153

Source: Fieldwork (2021)

Table 8 illustrates the SPSS output of the paired samples t-test. The total number of the female respondents (N) is 219, (*M*= 3.8651, (Std. Deviation = 0.57420), a correlation value of – 0.247 and test of significant value of 0.153. The table also depicts a total number of male respondents (N) as 81, a mean value of 4.1449, a standard deviation of 0.60638, a correlation value of – 0.247 and a test of significant value of 0.153.

Table 9: Paired Sample Test

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2 tailed)
Female – Male	-.3018	.93225	.15758	-1.915	34	.064

Source: Fieldwork (2021)

Table 9 depicts the SPSS output of paired sample test for differences in academic achievements of female and male respondents. The output shows a mean difference (Mean) value of – 0.3018 standard deviation value of 0.93225, t-test value of – 1.915 and a 2-tailed test of significance value of 0.064.

Table 10: The Difference Size – Cohen D

	n	Mean	Standard Deviation
Female	219	3.8651	0.57420
Male	81	4.1669	0.60638
Mean Difference		0.3018	
Pooled Standard Deviation			0.05

Source: Fieldwork (2021)

Table 10 shows the Cohen D which is used to determine the size of difference between two independent variables. The result depicts the total number (n) of female and male respondents as 219 and 81 respectively. Standard deviation values of 0.57420 and 0.60638 for female and male respondents respectively. Last, but not the least, the output reported a weighted average standard deviation (SD) value of 0.05 and a mean difference value of -0.3018. The mean value of the academic achievements of the female respondents is 3.8651, while that of the male respondents is 4.1669. Shows a mean difference

of - 0.301 and a reported t-value of -1.915 and 2-tailed p-value of 0.64. The standard alpha (α) levels are 0.05 and 0.01.

Research Question Three

H_0: There is no statistically significant effect of self-determination skills on the academic achievements of second year DBE distance education students of UCC in Kumasi Metropolis

H_1: There is a statistically significant effect of self-determination skills on the academic achievements of second year DBE distance education students of UCC in Kumasi Metropolis

Linear regression analysis was used to determine the effect of the self-determination skills of the respondents on their academic achievements. SPSS was used to run the data collected on the respondents' calculated self-determination skills (see appendix C) and the self-reported CGPA.

Table 11: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.216[a]	.046	.038	.55881

Predictors: (Constant), Self-Determination Skills (R)

Results from Table 11 highlight the coefficient of determination (R^2) correlation and coefficient (R) for the regression model. The reported R is 0.216 and R^2 is 0.046 (4.6%). The *R* indicate a low degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, self-determination skills, can be explained by the independent variable, CGPA. This implies that self-determination skills explain 4.6% of the variations in students' academic performance.

Table 12: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.796	1	1.796	5.752	.018[b]
	Residual	36.848	118	.312		
	Total	38.644	119			

Predictors: (Constant), Self-Determination Skills (Sig)

Dependent Variable: Cumulative Grade Point Average (ANOVA

Source: Fieldwork (2021)

Result from Table 12 reports how well the regression equation fits the data, i.e., predict the dependent variable (Cumulative Grade Point Average). The reported p-value (that is significance) is 0.018.

Table 13: Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	1.775	.306		5.807	.000
Self-Determination Skills	.183	.076	.216	2.398	.018

Dependent Variable: Cumulative Grade Point Average (Coefficients)

Source: Fieldwork (2021)

Result from table 13 shows the coefficients, which give the values of the regression line. The unstandardized coefficient for the independent variable (self-determination skills) is 0.183 which could be used to predict an increase in the dependent variable (CGPA). The reported t-test is 2.398 with a significance (p) value of 0.018. The correlation coefficient (R) from Table 13 of 0.216 reveals that the respondents' self-determination abilities and academic performance have a shaky link. The coefficient determination (R^2) of 0.046

suggests that 4.6% of the variance in the academic achievements of the respondents can be as a result of their self-determination skills. Moreover, Table 13 gives a p-value of 0.018 which is greater than 0.0005 ($p > 0.0005$).

Discussions of Results

Research Question One: What are the Self-Determination Skills of Second Year DBE Distance Education Students of UCC in the Kumasi Metropolis?

Study findings revealed that the self-determination skills of second year DBE Distance Education Students of UCC in the Kumasi Metropolis are choice making, decision making, goal setting and attainment, self-regulatory and management and self-awareness skills.

Concerning choice-making skills, it was revealed that they are able to select institutions of study after consultation, choose programmes of study based solely on their abilities, more importantly choose to study privately when they want, identify appropriate activities or materials for a given activity and also choose what to eat and when to eat.

Results also showed that when it comes to decision making skills, respondents set goals to get what they want or need, find out how to meet their goals, make plans and decide what they should do in the quest for meeting their goals. It was however revealed that respondents try to get another plan even if their plan does not succeed. This confirms the observations of previous researchers who have examined a portion of the evidence, including SDT developments and their implications for actual classroom education (Chatzisarantis, Hagger, Biddle, Smith, & Wang, 2003; Chen, Chen, and Zhu,

2012; Ntoumanis and Standage, 2009; Van nook Berghe, Vansteenkiste, Cardon, Kirk, & Haerens, 2014).

Under goals setting and attainment skills, respondents stated that they believe they can set goals to get what they want, make plans to meet their goals, work on their plans for the attainment of set goals, and the willingness of trying another way if it helps them to meet their goals. The findings are consistent with work done by Chatzisarantis et al. (2003) who investigated the relationships between self-determined motivation, perceived competence, and intentions toward physical exercise in physical education settings (Chen et al., 2012). They found that self-determined motivation and competence are positively correlated with students' intentions towards physical exercise in physical education.

With respect to self-regulation and management skills, respondents revealed that they participate in small and large group activities. Also, they defend their interests and needs when being questioned, and they are not affected by public opinions when setting goals, moreso they consider the suggestions from their parents making choices, but make the final decisions themselves. There is the motivation for working on long projects, and use the necessary methods to get it right, and are confident in their ability to complete tasks on time. Follow the lecture rules and routines, complete assignments on time, ask for help at appropriate times and also do the opposite of what they feel like doing. In view of their self-awareness and knowledge skills. For example, according to Bar-Tal & Bar-Zorah, (2007), achievement-motivated learners demonstrate enthusiasm and initiative for academic tasks, as well as persistence in the face of failure. Extrinsically motivated learners, on the other hand, rarely demonstrate a desire to surge academic performance and have little reason to

apply additional energy on academic duties, unless presented with an external reward (Bar-Tal & Bar-Zorah, 2007). Atkinson (2015), and Deci and Ryan (2008), link intrinsic motivation and achievement motivation as intrinsically motivated pupils are more likely to keep on with duties despite failure.

Research Hypothesis Two:

H_1: There is a statistically significant difference in the academic achievements of male and female second-year DBE distance education students of UCC in the Kumasi Metropolis

The results indicated no significant difference between the academic achievements of the female and male respondents. Therefore, the alternate hypothesis which states that, there is no significant difference in the performance of male and female learners was rejected. Results is in line with a study done by Ashtarian, Shafiee, Khezeli, Almasi, Rajati, and Zare (2020) who found no significant differences between knowledge and performance in three groups before and after educational intervention. Though the result indicates no difference in academic achievements, the literature review revealed that a number of studies have revealed significant gender academic achievement gaps, with males by and large outperforming females in Math and Science and females excelling at literacy subjects (Linn, 2010). There is recorded inconsistency in the academic achievements of female and male students, a clear confirmation of the results of this study and the study conducted by Linn (2010). For example, Ajai and Imoko (2015), conducted research on gender variations in math achievement. Their study concluded that there was no significant gender difference in achievement scores in mathematics, which indicated both gender's capability of competing in mathematics.

Similarly, Voyer and Voyer (2014) discovered a small but significant female advantage in language courses and a negligible merit in math and science. They, however observed, "While gender differences on achievement tests generally follow established patterns, girls consistently outperform males in school grades regardless of subject" (p. 26). This means that, despite the prevalent belief that boys outperform girls on tests requiring logical reasoning, educators observe a female proclivity for success in scientific courses that require logic and reasoning. Indeed, the purpose of my investigation is to evaluate the validity of previous research. While the gender achievement gap has been lengthily studied in the United States and many other countries, due to a lack of secondary school statistics in these countries, few large studies have been undertaken in developing countries. It's worth noting that the objective of this research is not to strengthen existing gender inequalities but to examine them in order to discover the underlying obstacles and problems that both males and females confront in reaching gender equality.

Males and females achieve academically differently, with males lagging behind females in secondary school graduation, subject grades, and enrollment and completion at universities (Parker, Van Zanden, & Parker, 2018: Clark, Lee, Goodman, & Yacco, 2008). Male underachievement, according to Majzub and Rais (2010), is a major global concern. Regardless of whether subject males majored, they discovered that girls outperformed boys in almost every subject area. The situation kept deteriorating as students moved through the various levels of education, with a 65–35 percent female enrollment ratio at the tertiary level (Majzub & Rais, 2010).

Stereotype threat has been linked to male underachievement by Hartley and Sutton (2013), who found that children as young as four felt that adults thought men were intellectually inferior to women. Stereotype threat manipulation has been found to affect young children, with boys performing worse in reading, writing, and math when they are told that girls normally perform better. Harley and Sutton found, on the other hand, that when boys were told they were on level with their female peers, their academic performance improved.

Research Question Three

H_1: There is a statistically significant effect of self-determination skills on the academic achievements of second year DBE distance education students of UCC in Kumasi Metropolis

Results showed a statistically significant effects of students' self-determination skills on their academic achievements. This implies that self-determination skills have a significant effect on the CGPA of DBE distance students. Study findings is consistent with a study conducted by Ryan and Weinstein (2009), who declared that pupils' interests in the learning milieu, as well as competency improvement and enhanced outcome performance, are all aided by self-determination theory.

The required abilities for individuals who are exceptionally self-determined display perfect actualization of the concept's aspects. Self-determined individuals possess remarkable decision-making abilities (Hurley, 2010). They exhibit technical expertise, professionalism, and a grasp of the current problem and latent solutions. Through their normal decision-making techniques, they display their ability to choose an alternative from a restricted

number of alternatives and also to make significant choices. Additionally, these folks have excellent problem-solving abilities (Palardy & Rumberger, 2020). They offer objective solutions regardless of the nature of the problems they are confronted with.

Additionally, they exhibit a greater capacity for self-control and self-management. They take ownership of their acts in their daily activities. Self-regulated and self-managing individuals exhibit a code of behavior that directs their actions, as well as self-understanding talents (Tran & Meacheam, 2020; Loeb et al., 2019). They are generally well aware of their potentials, capabilities, and flaws. Notably, they are constantly conscious of their nature and their rights. Again, self-motivated individuals are capable of setting goals. They ensure that their goal-setting activities are specific, quantifiable, dependable, and timely (Ghobary, 2007). Their cumulative talents correspond to the self-seven determination's components.

Summary of Key Findings

Study results showed that the respondents have SD skills. In the literature review, Hurley (2010) asserted that students with self-determination skills have exceptional decision-making skills. In their routine decision-making approaches, they offer intuition for their skills in choosing an alternative from a few and also in taking essential choices. Moreover, students with self-regulation and self-management skills are guided by codes of conduct that aids the shaping of behaviour. They make sure of reliability, measurability, specificity, and timeliness elements in their goal-setting efforts (Ghobary, 2007).

The study revealed no significant difference in the academic achievements of male and female students. A number of these works have

revealed significant gender academic achievement gaps, with males by and large outperforming females in Math and Science and females excelling at literacy subjects (Linn, 2010). This is buttressed by Eze, Ezenwafor and Obi (2015) in a study. They posited that a lot of studies on gender discrepancies relied on variations in academic achievements related to different science courses. Furthermore, in their study which spanned from 2004 through 2011, Voyer and Voyer (2014) proved that a small but significant female advantage that was largest for language courses and smallest for math and science.

The literature review, which was based on SDT, plainly identifies a connection between SD skills and academic achievement. This wires the assertion of this study that there is a possible effect of SDS on the academic achievement of distance education students. Ali (2013) discovered that daily study hours, parents'/guardians' socioeconomic level, and learners' age were major influences on academic achievement. Similarly, Narad and Addullah (2016) and Farooq (2011) found parents' economic situation, academic experience, and encouragement to be the factors that influence academic attainment. Finally, effective parental and teacher leadership, communication skills, and learning facilities have all been identified as important determinants of academic success. (Singh, Malik & Singh, 2016). The t-test of 2.389 in table 13 indicates that the self-determination skills of the respondents do not affect their academic achievements, though Tables 4 to 5 show that the respondents possess self-determination skills.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the study, and key findings, concludes the study based on the findings and makes policy recommendations to improve the level of SD skills, and academic performance of senior basic school learners.

Summary

The purpose of this study was to examine the effect of self-determination skills on academic achievements of University of Cape Coast distance education students pursuing a Diploma in Basic Education (DBE). Based on the objectives, the following research questions were addressed in the study: (1) What are the self-determination skills of final year DBE distance education students of UCC in the Kumasi Metropolis? (2) what are the differences in the academic achievements of male and female final year DBE distance education students of UCC in the Kumasi Metropolis? and (3) what are the effects of self-determination skills on the academic achievements of final year DBE distance education students of UCC in Kumasi Metropolis?

Related literature was reviewed based on the research questions, which were used as subsections under the literature review chapter of the study. Other related literature was reviewed under the following: the concept of self-determination, the concept of academic achievement, distance education, trends in distance education, characteristics of distance learners and psychological needs of distance learners. The rest were the theoretical framework, a general overview of self-determination theory, self-determination skills versus academic achievements, gender differences in academic achievements, the

empirical review and the conceptual framework. The conceptual review was based on a proposed model of self-determination skills on academic achievements (Ghobary, 2007). There are also some obvious gaps in this literature. The vast majority of SDT-based research on effective teaching has been conducted in a regular classroom setting and the majority of that research has been conducted using students with disabilities; especially when it comes to the promotion of self-determination skills to enhance teaching and learning.

The study adopted a descriptive survey design to determine the relationship between self-determination skills of final year diploma in basic education distance education students of UCC and their academic achievements. Yamane's (1967) simplified formula for calculation of sample size was employed to select 338 second-year students offering diplomas in basic education programme with the College of distance education (CoDE) of UCC in Kumasi Metropolis as respondents for the research. These respondents represented all students of CoDE of UCC offering diploma in basic education.

Out of the 338 sets of questionnaires that were administered, 38 of the returned were not fit for purpose. Thus, the final number of respondents used for this study was 300. One research question one was; "What are the self-determination skills of second-year DBE distance education students of UCC in the Kumasi Metropolis?" This was analysed using tables that depicted the responses of the respondents. The measures that were to determine their self-determination were frequencies and percentages. The research question two was; "What are the differences in the academic achievements of male and female final year DBE distance education students of UCC in the Kumasi Metropolis?" The SPSS was used to test the independent sample t-test to

determine the academic achievements of the respondents, while the Cohen D was calculated to determine the extent of extent of the difference. Finally, the SPSS was again used to run a regression analysis to determine the effect of self-determination skills on the academic achievements of the respondents.

Key Findings

With respect to research question one, Study findings revealed that the self-determination skills of second-year DBE Distance Education Students of UCC in the Kumasi Metropolis are choice-making, decision making, goal setting and attainment, self-regulatory and management and self-awareness skills.

For research question two, the results indicated no significant difference between the academic achievements of the female and male respondents. Therefore, the alternate hypothesis which states that, there is no significant difference in the performance of male and female learners was rejected.

With regards to research hypothesis three, results showed no significant relationship between the respondents' self-determination skills and their academic achievements. This implies that self-determination skills have no significant effect on the CGPA of DBE distance students.

Conclusions

Whereas distance education is said to have tremendous benefits in terms of delivering tertiary education, research is still limited about the academic achievements of the distance education students of the College of Distance Education in the Kumasi Metropolitan area, offering DBE. Every education necessitates a level of student motivation, self-discipline, and independence, but these characteristics are probably more important in the case of distance

education since the student is essentially self-directed and unsupervised, and expected to be more autonomous. According to Ryan and Stiller (2010), self-determination is an essential phenomenon for educators, a natural wellspring of learning and accomplishment that can be thoroughly categorized into skills. Hence this study was conducted to examine the effect of self-determination skills

The study has shown that students of CoDE, UCC, offering DBE possess self-determination skills such as choice-making, decision-making, goal setting and attainment, self-awareness and knowledge and self-regulation and management. There was an indication that there is no significant difference between the academic achievements of the male and female students studying at the Kumasi Metropolitan study centre of UCC CoDE offering DBE, though other studies proved otherwise under the literature review (Parker, Van Zanden, & Parker, 2018: Clark, Lee, Goodman, & Yacco, 2008). Furthermore, the study showed that there is no significant relationship between the students' self-determination skills and their academic achievements. Though the students possess self-determination skills, those skills have no significant effect on their academic achievements.

Recommendation for Policy and Practice

The following recommendations are offered as references for researchers and distant education institutions based on the findings and conclusions of this study.

1. The findings of the study showed an average of 25% of the students lacked self-determination skills. It is recommended that management of the College of Distance Education should design a non-examinable

programme for students who enroll into any distance education programme.

2. Moreover, the findings showed that there is no significant difference in the academic achievements of male and female distance education of UCC CoDE offering DBE. This study recommends that counsellors at the Guidance and Counselling Unit of College of Distance Education should organize career guidance and counselling session students when they are enrolled into the college on the need and importance of high academic achievement regardless of one's gender.
3. Last but not least, the regression analysis showed that there is a statistically significant effects of self-determination skills of students on their academic achievements. This study recommends that college tutor should help students develop their self-determination skills and this should include choice making skills, decision-making skills, goal setting skills, goal setting and attainment skills and problem-solving skills.

Recommendation for Further Studies

It is recommended that researchers adopt more diversified approaches to collect the self-determination skills of distance education students over a longer period, preferably using the course tutors. This will provide more accurate and reliable responses than the self-reported responses by the students used by this study to determine the self-determination skills of the respondents.

It also recommended that any future research on gender differences in academic achievements must obtain the CGPA directly from the academic sector of the institution.

REFERENCES

Ahn, J. (2011). The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information Science and Technology, 62*(8), 1435–1445.

Ali, S. (2013). Factors contributing to the students' academic performance. A case study of Islamia University, Sub-Campus. *Science and Education Journal, 1*(8), 1-10.

Alivernini, F., & Lucidi, F. (2011). Relationship between social context, self-efficacy, motivation, academic achievement, and intention to drop out of high school: a longitudinal study. *J. Educ. Res. 104*(3), 241–252.

Araújo, M. V. (2016). Measuring self-regulated practice behaviours in highly skilled musicians. *Psychol. Music 44*(2) 278–292.

Atkinson, J. W. (2015). *An introduction to motivation*. New York, NY: D. Van Nostrand Company

Bennett, S. N. (2003). Recent research on teaching: A dream, a belief, and a model. *British Journal of Educational Psychology, 48*(5), 127-147.

Berkowitz, R., Moore, H., Astor, R. A., & Benbenishty, R. (2017). A research synthesis of the associations between socioeconomic background, inequality, school climate, and academic achievement. *Rev. Educ. Res. 87*(2), 425–469.

Bijari, B., Javadinia, S. A., Erfanian, M., Abedini, M. R., & Abassi, A. (2013). The impact of virtual social networks on student's academic achievement at Birjand University of medical sciences in East Iran. Procedia - *Social and Behavioral Sciences, 83*(4), 103–106.

Bonneville-Roussy, A., & Bouffard, T. (2015). When quantity is not enough: disentangling the roles of practice time, self-regulation and deliberate practice in musical achievement. *Psychol. Music 43*(4), 686–704.

Bower, J. M., Carroll, A., & Ashman, A. F. (2012). Adolescent perspectives on schooling experiences: The interplay of risk and protective factors within their lives. *International Journal of Educational Research, 53*(4), 9–21.

Britton, P. C., Patrick, H., Wenzel, A., & Williams, G. C. (2011). Integrating motivational interviewing and self-determination theory with cognitive behavioural therapy to prevent suicide. *Cognitive and Behavioral Practice, 18*(4), 16–27.

Burns, N., & Grove, S. K. (2007). *Understanding nursing research*. (4th ed). Philadelphia: Saunders Company.

Çapan, B. E. (2010). Relationship among perfectionism, academic procrastination and life satisfaction of university students. *Procedia Social and Behavioral Sciences, 5*(8), 1665–1671.

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Newbury Park, Ca; Sage.

Chiu, T. K. F., & Hew, T. K. F. (2018). Asynchronous online discussion forum in MOOCs: Does openness matter for peer learning and performance? *Australasian Journal of Educational Technology, 34*(4), 16–28.

Cho, H., Wehmeyer, M., & Kingston, N. (2013). Factors that predict elementary educators' perceptions and practice in teaching self-determination. *Psychology in the Schools, 50*(8), 770-780.

Cleary, T. J., Callan, G. L., & Zimmerman, B. J. (2012). Assessing self-regulation as a cyclical, context-specific phenomenon: overview and analysis of SRL. *Educ. Res. Int. 20*(12), 4280-639.

Concina, E. (2019). The role of metacognitive skills in music learning and performing: theoretical features and educational implications. *Front. Psychol. 10*(1), 15-83.

Creech, A., Hallam, S., Varvarigou, M., McQueen, H., & Gaunt, H. (2013). Active music making: a route to enhanced subjective well-being among older people. *Perspect. Public Health, 133*(3), 36–43.

Creswell, J. W. (2013). *Research design: qualitative, quantitative, and mixed methods approaches*. London: Sage Publications.

Darling, J., & Foster, M. (2012). Preparing students to join the global public sphere. *International Studies Perspectives, 13*(4), 423–436.

Deci, E. L., & Ryan, R. M. (2008). Human autonomy: The basis for true self-esteem. In M. Kemis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31-49). New York: Plenum.

Deci, E. L., & Ryan, R. M. (2010). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry, 11*(4), 227–268.

DiPrete, T. A., & Jennings, J. L. (2012). Social and behavioural skills and the gender gap in early educational achievement. *Social Science Research, 41*(1), 1–15.

Dukes, III, L. L., & Shaw, S. F. (2008). Using the AHEAD program standards and performance indicators to promote self-determination in the daily practice of Office of disability services. *Journal of Postsecondary Education and Disability, 21*(3), 105-108.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. *Child Dev. 82*(3) 405–432.

Eamon, M. K. (2005). Social-demographic, school, neighbourhood, and parenting influences on academic achievement of Latino young adolescents. *Journal of Youth and Adolescence, 34*(2), 163-175

Eisenman, L. Y. (2007). Self-determination interventions: building a foundation for school completion. *Remedial and Special Education, 28*(1), 2–8.

Ekelund C., Dahlin-Ivanoff, S., & Eklund, K. (2014). Self-determination and older people - a concept analysis. *Scand J Occup Ther. 21*(2):116–24

Evans, P. (2015). Self-determination theory: an approach to motivation in music education. *Music. Sci. 19*(3), 65–83.

Farooq, A. H. (2011). Factors affecting student's quality of academic performance a case of secondary school level in Pakistan. *Pakistan Journal of Quality Management, 5*(6), 34-45.

Ferranel, C., Martinent, G., & Durmaz, N. (2014). Psychological need satisfaction and well-being in adults aged 80 years and older living in residential homes using a self-determination theory perspective. *J. Aging Stud. 30*(5), 104-111.

Field, S., Hoffman, A., & Sawilowsky, S. (2004). *Update of self-determination: A literature review and synthesis*. Detroit, MI: Wayne State University.

Fozar, B. I., & Kumar, L. S. (2007). Mobile learning and student retention. *International Review of Research in Open and Distance Learning, 8*(2), 1-16.

Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behaviour engagement. *Motivation and Emotion, 27*(3), 199-223

Gagne, M. (2015). The role of autonomy support and autonomy orientation in the engagement of prosocial behaviour. *Motivation and Emotion, 27*(9), 9–23

Gagne´, M., & Deci, E. (2005). *Self-determination theory as a framework for understanding organizational commitment*. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Toronto, Canada

Ghobary, B. B. (2007). Teaching academic content to students with significant cognitive disabilities: going beyond developmental curriculum model and functional skills. *Psyc CRITIQUES, 52*(10).

Gillet, N., (2019). Complementary variable- and person-centred approaches to the dimensionality of work engagement: A longitudinal investigation. *European Journal of Work and Organizational Psychology, 28*(7), 239-258.

Goodman, G., Bains, L., & Moussalli, M. (2010). IEP Workboxes: An Intervention for Increasing the Cognitive Development of Preschool Students with Disabilities. *Intervention in School and Clinic, 46*(4), 251-256.

Gouzouasis, P. (2019). What are ABER and CAP? Act. Crit. *Theory Music Educ, 18*(3) 1–24.

Haber, M. G., Mazzotti, V. L., Mustian, A. L., Rowe, D. A., Bartholomew, A. L., Test, D. W., & Fowler, C. H. (2016). What works, when, for whom, and with whom: A meta-analytic review of postsecondary success for students with disabilities. *Review of Educational Research, 86*(1), 123-162.

Hatfield, J. L. (2017). Goal setting and self-determination in music making: tenets of becoming a deliberate and motivated music practitioner. *Nord. Res. Music Educ. Yearb. 18*(2), 271–294.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing, 18*(4), 66-67.

Hsu, H. C. K., Wang, C. V., & Levesque-Bristol, C. (2019). Reexamining the impact of self-determination theory on learning outcomes in the online learning environment. *Education and Information Technologies*, *24*(3), 2159–2174.

Huck, S. W. (2007). *Reading statistics and research,* United States of America; Allyn & Bacon.

Hurley, J. (2010). Promoting self-determination in students with developmental disabilities. *Intellectual and Developmental Disabilities, 48*(2), 163-164.

Institute for Education Sciences. (2012). *Restricted use of data licenses*. Washington, DC: National Center for Education Statistics.

Jean, B. (2007). *Teaching and learning with technology*. Ana A. Ciereszko, Al P. Mizell (3rd ed).

Jong, B.-S., Lai, C.-H., Hsia, Y.-T., Lin, T.-W., & Liao, Y.-S. (2014). An exploration of the potential educational value of Facebook. *Computers in Human Behavior, 32*(3), 201–211.

Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior, 28*(1), 187–198.

Katartzi, E. S., & Vlachopoulos, S. P. (2011). Motivating children with developmental coordination disorder in school physical education: the self-determination theory approach. *Research in Developmental Disabilities, 32*(6), 2674-2682.

Kautz, T., Heckman, J. J., Diris, R., Weel, B., & Borghans, L. (2014). *Fostering and measuring skills: improving cognitive and non-academic skills to promote lifetime success*. OECD Education Working Papers. Paris: OECD Publishing.

Kirschner, P. A., & Karpinski, A. C. (2010). Choice-making skills and academic performance. *Computers in Human Behavior*, *26*(6), 1237–1245.

Knobbout, J., & Van Der Stappen, E. (2020) Where is the learning in learning analytics? A systematic literature review on the operationalization of learning-related constructs in the evaluation of learning analytics interventions. *IEEE Trans. Learn. Technol.*, *13*(3), 631–645.

Korinek, L., & Defur, S. H. (2016). Supporting Student Self-Regulation to Access The General Education Curriculum. *Teaching Exceptional Children, 48*(5), 232-242.

Kraemer, K. L. (2007) *Introduction*. Paper presented at the information system research challenge: survey research method. Washington, DC.

Krause, A. E., North, A. C., & Davidson, J. W. (2019). Using self-determination theory to examine musical participation and well-being. *Front. Psychol, 10*(3), 405

Lehmann, A., & Jørgensen, H. (2012). "Practice," in the Oxford handbook of music education, 2nd ed, eds G. E. McPherson & G. Welsch (New York, NY: Oxford University Press), 677–693.

Leximancer, M. (2018). Text in Insight Out. Available online at https://www. leximancer.com/ (accessed June 21, 2019).

Li, Y., & Lerner, R. M. (2013). Interrelations of behavioural, emotional, and cognitive school engagement in high school students. *J. Youth Adolesc. 42*(3), 20–32.

Liu, S.-H., Yin, M.-C., & Huang, T.-H. (2013). Adolescents' interpersonal relationships with friends, parents, and teachers. *Creative Education, 4*(5), 335–339.

Livieris, I. E., Drakopoulou, K., Tampakas, V. T., Mikropoulos, T. A., & Pintelas, P. (2018). Predicting secondary school students' performance utilizing a semi-supervised learning approach, *J. Educ. Computer. Res*., 57(2), 448–470.

Loeb, S., Christian, M. S., Hough, H., Meyer, M. S., Rice, A. B., & West, M. R. (2019). School differences in social-emotional learning gains: findings from the first large-scale panel survey of students. *Journal of Educ. Behav. Statist. 44*, 1–36.

López-Íñiguez, G. (2019a). Epiphonies of motivation and emotion throughout the life of a cellist. [Special issue on applications of Arts-Based Educational Research (ABER). *Act. Crit. Theory Music Educ, 18*, 157–189.

Markland, D., & Navin. J. (2016). Need support and behavioural regulations for exercise among exercise referral scheme clients: the mediating role of psychological need satisfaction. *Psychology of Sport and Exercise, 11*(2), 91-99.

Martinez, M. (2003). The high attrition rate in e-learning: Challenges, predictors, and solutions. *The eLearning Developers Journal*, *5*(1), 1-7.

Matosic, N. (2015). Narcissism and coach interpersonal style: A self-determination theory perspective. *Journal on Interdisciplinary Studies in Humanities Special Issue, 1*(3), 15-21.

McNamara, B. N., Hambrick, D. Z., & Oswald, F. L. (2014). Deliberate practice and performance in music, games, sports, education, and professions: a meta-analysis. *Psychol. Sci. 25*, 1608–1618.

McPherson, G. E., Miksza, P., & Evans, P. (2018). Self-regulated learning in music practice and performance, in Handbook of Self-Regulation of Learning and Performance, 2nd ed, in D. H. Schunk & J. A. Greene (Eds) (New York, NY: Routledge), 181–193.

Michael, P. (2013). Does active learning work? A review of the research, *Engineering Education*, *93*(3), 223-231.

Moser, C. A., & Kalton, G. (1989). *Survey methods in social investigation*, Aldershot, Gower.

Narad, A., & Abdullah, B. (2016). Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Journal on Interdisciplinary Studies in Humanities Special Issue, 3*(2), 12-19.

National Research Council (2012). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: National Academies Press.

Ntoumanis, N., & Standage, R. (2009) A prospective study of participation in optional school physical education based on self-determination theory. *Journal of Educational Psychology, 97*(3), 444–53.

Nuchwana, L. (2012). How to link teaching and research to enhance students' learning outcomes: Thai university experience. *Procedia - Social and Behavioral Sciences, 69*(24), 213–219.

Palardy, G. J., & Rumberger, R. W. (2019). *Problem behaviors at school: demographic differences and the role of 21st-century skills and peer composition in Sacramento, in Resisting Education*: A Cross-National Study on Systems and School Effects, eds J. Demanet and M. Van Houtte (Cham: Springer), 53–80.

Palmen, H., Vermande, M. M., Dekovic, M., & van Aken, M. A. G. (2011). Competence, problem behaviour, and the effects of having no friends, aggressive friends, or nonaggressive friends: A 4-year longitudinal study. *Merrill-Palmer Quarterly, 57*, 186–213.

Palmer, C. (2013). Music performance: movement and coordination, in the psychology of music, 3rd ed. D. Deutsch (San Diego, CA: Academic Press), 405–422.

Paul, J. A., Baker, H. M., & Cochran, J. D. (2012). Effect of online social networking on student academic performance. *Computers in Human Behavior, 28*(6), 2117–2127.

Pedrosa, F. (2006). *Educational and social economic background of graduates and academic performance*: consequences for affirmative action programs at a Brazilian research university.

Pennell, R. L. (2011). *Self Determination and Self-Advocacy: Shifting the Power*. Journal of self-determination skills to assist students with disabilities Disability Policy Studies.

Pike, P. (2017). Exploring self-regulation through a reflective practicum: a case of improvement through mindful piano practice. *Music Educ. Res. 19,* 398–409.

Reeve, J. (2012). Students' classroom engagement produces longitudinal changes in classroom motivation. *Journal of Educational Psychology, 106*(2), 527-540.

Robinson, J. (2009). *Triandis's theory of interpersonal behaviour in understanding software privacy behaviour in the South African context*. Master's degree, University of the Witwatersrand.

Rono R. (2013). *Factors Affecting Pupils' Performance in Public Primary Schools at Kenya Certificate of Primary Education Examination* (Kcpe) in Emgwen Division, Nandi District, KENYA

Rowe, D. (2014). Strategies for teaching self-determination skills in conjunction with the common core. *Intervention in School & Clinic, 50*(3), 131-

Ryan, R. M., & Deci, E. L. (2012). The darker and brighter sides of human existence: Basic psychological needs as a unifying concept. *Psychological Inquiry, 11*(2), 319-338.

Ryan, R. M., & Deci, E. L. (2019). "Supporting autonomy, competence, and relatedness: the coaching process from a self-determination theory perspective," in Professional Coaching: Principles and Practice, eds P. Brownell, S. English, and J. Sabatine (New York, NY: Springer), 231–246.

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective. Definitions, theory, practices, and future directions. *Contemporary Educational Psychology, 61*(10), 18-60.

Sarver, M. D. (2000). A study of the relationship between personal and environmental factors bearing on self-determination and the academic success of university students with learning disabilities. Unpublished doctoral dissertation, University of Florida. *Gainesville Severe Disabilities, 30*(2), 113-120

Schatt, M. D. (2018). Middle school students' self-determination to practice. *Journal of Psychology 46*(2), 208–221.

Schwarting, M. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school:* A report from the National Longitudinal Transition Study-2 (NLTS2) NCSER 2011-3005). Menlo Park, CA: SRI International.

Sharon, W. (2007). "Narrowing the Distance: Implementing a Hybrid Learning Model". *Quarterly Review of Distance Education. IAP. 8*(1), 48–49.

Shogren, K., Palmer, S., Wehmeyer, M. L., Williams-Diehm, K., & Little, T. (2012). Effect of intervention with the self-determined learning model of instruction on access and goal attainment. *Remedial and Special Education, 33*(5), 320-330.

Spencer, T. D., Detrich, R., & Slocum, T. A. (2012). Evidence-based practice: A framework for making effective decision. *Education and Treatment of Children, 35*(2).

Suleman, Q., Aslam, H. D., Shakir, M., Akhtar, S., Hussain, I., & Akhtar, Z. (2012). Effects of family structure on the academic performance of students at the elementary level in District Karak, Khyber Pukhtunkhwa, Pakistan. *Journal of Sociological Research, 3*(2), 234-248.

Teixeira, P. J. (2012). A review of psychosocial pre-treatment predictors of weight control. *Obes Rev, 6*(2), 43-65.

Tran, T. P., & Meacheam, D. (2020). Enhancing learners' experience through extending learning systems. *IEEE Trans. Learn. Technol., 13*(3), 540–551–252.

University of Cape Coast, College of Distance Education (2020), Kumasi.

Valenzuela, R., Codina, N., and Pestana, J. V. (2018). Self-determination theory applied to flow in conservatoire music practice: The roles of perceived autonomy and competence, and autonomous and controlled motivation. *Psychol. Music 46*, 33–48.

Vallerand, R. J., Deci, E. L., & Ryan, R. M. (2009). Intrinsic motivation in sport. *Exercise and Sport Sciences Review, 15*(2), 389-425.

Van den Berghe, L., Vansteenkiste, M., Cardon, G., Kirk, D., & Haerens, L. (2014). Research on self-determination in physical education: Key findings and proposals for future research. *Physical Education and Sport Pedagogy, 19*(1), 97–121.

Wehmeyer, M. L. & Schwartz, F, (2012). Personal self-determination and moderating variables that impact efforts to promote self-determination. *Exceptionality, 19*(1), pp. 19–30.

Wehmeyer, M. L., Agran, M., & Hughes, C., (2007). *Promoting self-determination in students with intellectual and developmental disabilities*. Heidelberg, Germany: Springer.

Wehmeyer, M. L., Field, S., & Thomas, C. A. (2012). Self-determination and adolescent transition education. In M. L. Wehmeyer & K. W. Webb (Eds.), *Handbook of adolescent transition education for youth with disabilities (pp. 171–190)*. New York, NY: Routledge.

Wehmeyer, M.L. (2018). Empowerment. In A. Michalos (Ed.), *Encyclopedia of quality-of-life research.* Heidelberg, Germany: Springer.

West, M. R., Buckley, K., Krachman, S. B., & Bookman, N. (2018). Development and implementation of student social-emotional surveys in the CORE districts. J. *Appl. Dev. Psychol. 55*, 119–129.

Whitley, B. E. (2002). *Principals of research and behavioural science*. Boston, McGraw-Hill.

Wibrowski, C. R., Matthews, W. K., Kitsantas, A. (2017). The role of a skills learning support program on first-generation college students' self-regulation, motivation, and academic achievement: A longitudinal study. *J Coll Stud Retent. 19*(3), 17–32.

Wier, K., (2011). *Fostering self-determination among children with disabilities: Ideas from parents for parents*. Madison, WI: Natural Supports Project, Waisman Center, University of Wisconsin – Madison

Yailagh, M. S. (2014). Comparisons of self-determination among students with learning disabilities and without learning disabilities. *AJAP American Journal of Applied Psychology, 3*(2), 27.

Yamane, T. (1967). *Statistics, An introductory analysis*. (2nd ed)., New York: Harper and Row.

Yardley, S., Mattick, K., and Dornan, T. (2020). *Close-to-practice: qualitative research methods*. New York, NY: Oxford University Press, 408–428.

Zach, C. (2020). *Research guides: organizing academic research papers: types of research designs*. Library.Sacredheart. Edu.

Zhang, D. (2001). The effect of self-determination instruction on high school students with mild disabilities. *Louisiana Education Research Journal, 25*(1), 29-54.

Bar-Tal, L. R, & Bar-Zorah, N. R. (2011). *The relationship between students' academic self-concept, motivation and academic achievement at the university of the Free State*. *Exceptionality, 5*(3), pp. 10–25.

Yamane, T. (**1967**) *Statistics: An Introductory Analysis. 2nd Edition*. Harper and Row, New York.

Agran, M., Wehmeyer, M. L., Cavin, M., & Palmer, S. (2008). Promoting student active classroom participation skills through instruction to promote self-regulated learning and self-determination. Career Development for Exceptional Individuals, 31(2), 106-114.

Ajai, J. T., & Imoko, B. I. (2015). Gender Differences in Mathematics Achievement and Retention Scores: A Case of Problem-Based Learning Method. International Journal of research in Education and Science, 1(1), 45-50.

Anokye Effah, N. A. (2005). The influence of academic engagement on academic performance of university accounting students in Ghana. South African Journal of Accounting Research, 36(2), 105-122.

Asabere, H., & Enguah, M. (2012). The influence of novelty seeking behavior and autonomy toward new product trial in the context of e-business learning: The role of mediation of perceived behavioral control. Journal of Entrepreneurship Education, 21(3), 1-9.

Astarian, O., Shafiee, R. M., Khezeli, I., Almasi, W., Rajati, S., & Zare, F., (2020). The effect of educational empowerment interventions on IBD patients in worldwide:

A systematic review of randomized clinical trials. Iranian Journal of Health Education and Health Promotion, 10(1), 93-108.

Atkinson, C. (2015). Developing a competency framework for the initial training of educational psychologists working with young people aged 16–25. Educational Psychology in Practice, 31(2), 159-173.

Bada, A. B., & Abubakar, A. A. (2017). Roles of government and private sectors on educational organisations in Sokoto state, Nigeria. CARD International Journal of Social Sciences and Conflict Management, 2(3), 61.

Barsch, K. L. (2006). Understanding the impact of self-determination on communities in crisis. International Journal of Indigenous Health, 5(2), 88-101.

Bessant, E. (2007). The Wilsonian moment: self-determination and the international origins of anticolonial nationalism. Oxford University Press.

Burns, J. A., & (2012). Trait perfectionism, self-determination, and self-presentation processes in relation to exercise behavior. Psychology of Sport and Exercise, 13(2), 224-235.

Caruth, E. & Caruth, J. (2013). Self-Determination Theory and MOOC Enrollment Motivation: Validation of the Online Learning Enrollment Intentions Scale (Doctoral dissertation, Oklahoma State University).

Chatzisarantis, N., Ntoumanis, N., Boardley, I. D., Sedikides, C., Stewart, B. D., & Matosic, D. (2003). Narcissism and coach interpersonal style: A self-determination theory perspective. Scandinavian journal of medicine & science in sports, 27(2), 254-261.

Chen, A. (2004). A pedagogical understanding of the self-determination theory in physical education. Quest, 62(4), 364-384.

Chen, S. Y. (2011). Perspectives of Taiwanese families: A preliminary study on promoting self-determination skills of young children with disabilities. Early Childhood Education Journal, 46(6), 673-681.

Cherry, K. M. (2021). Defining and measuring "psychological flexibility": A narrative scoping review of diverse flexibility and rigidity constructs and perspectives. Clinical psychology review, 84, 101973.

Clark, M. H., & Schroth, C. A. (2010). Examining relationships between academic motivation and personality among college students. Learning and individual differences, 20(1), 19-24.

Darkwa, M. & Mazibuko, C. (2000). International educational methods and preparation of learners, in a global context. The International Journal of Human Rights, 15(6), 969-1012.

Deci, E. L., & Ryan, R. M. (2007). Facilitating health behaviour change and its maintenance: Interventions based on self-determination theory. European Health Psychologist, 10(1), 2-5.

Drost, E. (2011). Methods for estimating reliability of a test. International Review of Statistics, 9(2), 83-112.

Erinosho, O. (2007). Empowering girls and connecting people through school social work intervention. African Journal Of Social Work, 4(2), 38-58.

Eze, T. I., Ezenwafor, J. I., & Obi, M. N. (2015). Effects of age and gender on academic achievement of vocational and technical education (VTE) students of a Nigerian university. Journal of Emerging Trends in Educational Research and Policy Studies, 6(1), 96-101.

Ganai, M. Y., & Muhammad, M. A. (2013). Understanding happiness and academic procrastination among undergraduate students in Kashmir: A quantitative as well as qualitative study. Education Mind, 2(1), 16-34.

Gillet, E., Vallerand, M., & Landmark, P. B. (2012). Fostering self-determination in students with intellectual disabilities: Secondary special education teachers' self-reported approaches, barriers, and support needs (Doctoral dissertation, Northcentral University).

Hartley, B. L., & Sutton, R. M. (2013). A stereotype threat account of boys' academic underachievement. Child development, 84(5), 1716-1733.

Holmberg, J. (2011). Self-Determination, Secession, and State Recognition: A Comparative Study of Kosovo, Abkhazia, and South Ossetia.

Imoko, B. I. (2015). Gender Differences in Mathematics Achievement and Retention Scores: A Case of Problem-Based Learning Method. International Journal of research in Education and Science, 1(1), 45-50.

Impara, S. & Plake, M. H. (1998). The special education elementary longitudinal study and the national longitudinal transition study: Study designs and implications for children and youth with emotional disturbance. Journal of Emotional and Behavioral Disorders, 13(1), 25-41.

Jang, H., Kim, E. J., & Reeve, J. (2012). Longitudinal test of self-determination theory's motivation mediation model in a naturally occurring classroom context. Journal of Educational psychology, 104(4), 1175.

Jegede, O., Taplin, M., Fan, R. Y., Chan, M. S., & Yum, J. (1999). Differences between low and high achieving distance learners in locus of control and metacognition. Distance Education, 20(2), 255-273.

Keegan, R., Spray, C., Harwood, C., & Lavallee, D. (2010). The motivational atmosphere in distance learning. Journal of applied sport psychology, 22(1), 87-105.

Linn, M. (2010). A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. Developmental review, 30(1), 74-99.

Kirkup, R., & Jones, A. (2013). A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. Developmental review, 30(1), 74-99.

López-Íñiguez, G. (2018). Applying self-regulated learning and self-determination theory to optimize the performance of a concert cellist. Frontiers in Psychology, 11, 385.

Majzub, R. M., & Rais, M. M. (2010). Parental variables and its impact of learner's academic success. Studies in Sociology of Science, 1(1), 67.

Manuh, H. T. (2007). Free senior high school (SHS) and quality university education in Ghana: The role of the university teacher. Journal of Educational and Social Research, 10(5), 225-225.

Mesly, O. (2015). Exploratory findings on the influence of distance learning on six competencies in an international project. International Journal of Project Management, 33(7), 1425-1437.

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. Theory and research in Education, 7(2), 133-144.

Ocho, D. (2005). Parent practices in facilitating self-determination skills: The influences of culture, socioeconomic status, and children's special education

status. Research and Practice for Persons with Severe Disabilities, 30(3), 154-162.

Ofori-Attah, K. (2005). Attribution theory: a framework for student involvement and engagement in online learning. In ICERI2009 Proceedings (pp. 2532-2532). IATED.

Parker, P. D., & Van Zanden, B. (2018). Girls get smart, boys get smug: Historical changes in gender differences in math, literacy, and academic social comparison and achievement. Learning and Instruction, 54, 125-137.

Deci, L. G., Vallerand, M. A., Pelletier, R. J., & Ryan, R. M. (2009). Validation of the revised student's motivation scale (SMS-II). Psychology of sport and exercise, 14(3), 329-341.

Reeve, E. (2002). The link between preschoolers' phonological awareness and mothers' book-reading and reminiscing practices in low-income families. Journal of Literacy Research, 44(4), 426-447.

Rigby, C. S., & Przybylski, A. K. (2009). Virtual worlds and the learner hero: How today's technology can inform tomorrow's digital learning environments. Theory and Research in Education, 7(2), 214-223.

Robinson, P. & Latchem, A. (2002). The integrated self-determination and self-efficacy theories of ICT training and use: the case of the socio-economically disadvantaged. Global Development, 2 (8), 19.

Romainville, U. (2004). Learning scores and active metacognition in the cognitive process. Current Psychology, 40, 3417-3424.

Ryan, R., Deci, E. L. (2017). Self-Determination Theory: Basic Psychological Needs in Motivation, Development and Wellness. Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness.

Ryan, R. M., & Stiller, S. R. (2010). Cohorts and relatedness: Self-determination theory as an explanation of how learning communities affect educational outcomes. Research in Higher Education, 52, 853-874.

Ryan, R. M., & Weinstein, N. (2009). Undermining quality teaching and learning: A self-determination theory perspective on high-stakes testing. Theory and research in education, 7(2), 224-233.

Ryan, W. S., & Hicks, R. M. (2007). Toward a social psychology of authenticity: Exploring within-person variation in autonomy, congruence, and genuineness using self-determination theory. Review of General Psychology, 23(1), 99-112.

Saint, N. (1999). Distance learning in Africa. Social Sciences, 37(5), 353-363.

Salant, K. B., & Dillman, J. C. (2008). A study of self-determination skills of students with learning disabilities at selected historically Black colleges and universities (Doctoral dissertation, University of Georgia).

Schneider, M. L., & Kwan, B. M. (2013). Psychological need satisfaction, intrinsic motivation and affective response to exercise in adolescents. Psychology of sport and exercise, 14(5), 776-785.

Schunk, K. B. (2009). The relationship between self-concept, intrinsic motivation, self-determination and academic achievement among Chinese primary school students. International Journal of Psychological Studies, 3(1), 90.

Simpson, M. L., & Weinar, D. E. (1991). Self-determination, causal agency, and mental retardation. International review of research in mental retardation, 31, 31-71.

Singh, N., Malik, D., & Singh, G. (2016). Topical drug delivery systems: a patent review. Expert opinion on therapeutic patents, 26(2), 213-228.

Sumrall, M. E. (2003). A brief overview of individual differences in self-determination. System, 31(3), 313-330.

Tait, M. (2014). Self-determination as a collective capability: The case of indigenous peoples. Journal of Human Development and Capabilities, 15(4), 320-334.

Voyer, R., & Voyer, A. (2014). Grades in primary school–the relationship between assessment and students' later performance. Educational research in Sweden, 19 (4-5), 367-385.

Van Nook, C., Berghe, B., Vansteenkiste, G., Cardonkirk, N., & Haerens, H. (2014). Participatory principles in practice: Designing learning spaces that promote wellbeing for young adolescents during the transition to secondary school. School spaces for student wellbeing and learning: Insights from research and practice, 199-219.

Wang, J. C. (2006). Sport ability beliefs, achievement goals, self-determination and beliefs about the purposes of Physical Education among Singaporean preservice physical education trainees.

Watson, N. (2003). The repatriation of indigenous remains in the United States of America and Australia. Australian Indigenous Law Reporter, 8(1), 33-44.

Wehmeyer, M. L. (2018). Personal self-determination and moderating variables that impact efforts to promote self-determination. Exceptionality, 19(1), 19-30.

Xie, K. U. I., Debacker, T. K., & Ferguson, C. (2006). Extending the traditional classroom through online discussion: The role of student motivation. Journal of educational computing research, 34(1), 67-89.

Zack, M. M. (2020). Frequent mental distress among adults, by disability status, disability type, and selected characteristics—United States, 2018. Morbidity and Mortality Weekly Report, 69(36), 1238.

Zhang, D. & Sun, L. J. (2003). Parent and teacher engagement in fostering the self-determination of students with disabilities: A comparison between the United

States and the Republic of China. Remedial and Special Education, 26(1), 55-64.

Zimmerman, C. J. (2002). The development of health self-management among adolescents with chronic conditions: an application of self-determination theory. Journal of Adolescent Health, 68(2), 394-402.

APPENDIX A

QUESTIONNAIRE

My name is Evelyn Assabil (Mrs) and I am currently studying for M.Phil. Educational Psychology at the University of Cape Coast. I am conducting research into the effect of self-determination skills on the academic achievements of distance education students of the College of Distance Education of the University of Cape Coast. The questionnaire consists of 30 questions and will take no longer than 10 minutes to complete. All responses will be kept anonymous and no one will be identifiable in the research.

Section A: Demographic Background

1. Study Centre:
   ……
   ……
2. Programme of study:
   ……

For questions 3 – 5, please cross [X] where appropriate:

3. Level: Year One [ ] Year Two [ ]
   Year Three [ ]
4. Age (in years): Below 20 [ ] 20 – 25 [ ] 26 – 30 [ ] 31 – 35 [ ] above 35 [ ]
5. Gender: Male [ ] Female [ ]

Section B: Self-Determination Skills

Use the following to rate each of the statements under each skill by crossing the corresponding number of the appropriate response: Never – 1; Almost Never – 2; Sometimes – 3; Almost Always – 4; Always – 5

1. Choice-Making Skills

Statement	Response				
	1	2	3	4	5
6. I select institutions of study after consultation					

7. I choose my programmes of study based solely on my abilities					
8. I choose to study privately when I want					
9. I identify activities or materials for a given activity					
10. I choose what to eat and when to eat					

2. Decision-Making Skills

Statement	**Response**				
	1	**2**	**3**	**4**	**5**
11. I set goals to get what I want or need. I think about what I am good at when I do this.					
12. I figure out how to meet my goals. I make plans and decide what I should do.					
13. I begin working on my plans to meet my goals as soon as possible.					
14. I know what I need, what I like, and what I'm good at.					
15. If my plan doesn't work, I try another one to meet my goals					

3. Goal Setting and Attainment Skills

Statement	**Response**				
	1	**2**	**3**	**4**	**5**
16. I believe that I can set goals to get what I want.					
17. I like to make plans to meet my goals.					
18. I begin working on my plans to meet my goals as soon as possible.					
19. I like to begin working on my plans right away.					
20. I am willing to try another way if it helps me to meet my goals.					

4. Self-Regulation and Management Skills

Statement	Response				
	1	2	3	4	5
21. I participate in small and large group activities.					
22. I complete assignments on time.					
23. I follow the lecture rules and routines.					
24. I ask for help at appropriate times.					
25. I do the opposite of what I feel like doing					

5. Self-Awareness and Knowledge Skills

Statement	Response				
	1	2	3	4	5
26. I defend my needs and interests to anyone who questions them.					
27. I do not feel constrained by others' opinions in setting goals and expectations for himself.					
28. I often consider my parents' suggestions when making choices and plans, but the final plans taken to meet my goals are my own.					
29. I am motivated to work on a project as long as it takes, using whatever approaches are necessary, to get it right.					
30. I schedule my activities; I am confident I can complete them accurately and on time					

Section C: Academic Achievements

31. Are you satisfied with your every semester examination results?

Yes [ ] No [ ]

32. How will you rate your academic achievement so far?

Good [ ] Poor [ ]

33. Do you have resit(s) each semester?

Yes [ ] No [ ]

34. How many re-sits do you have now?
……

35. What is your cumulative grade point average?
……

APPENDIX B:

SAMPLE SELF-DETERMINATION SCORE SHEET

SD Skills	**Responses**					**Totals**
Choice-Making	**1**	**2**	**3**	**4**	**5**	
I select institutions of study after consultation			3			
I choose my programmes of study based solely on my abilities					5	
I choose to study privately when I want					5	
I identify activities or materials for a given activity			3			
I choose what to eat and when to eat					5	
Sub-Total						**21**
Decision-Making	**1**	**2**	**3**	**4**	**5**	
I set goals to get what I want or need. I think about what I am good at when I do this.					5	
I figure out how to meet my goals. I make plans and decide what I should do.					5	
I begin working on my plans to meet my goals as soon as possible.					5	
I know what I need, what I like, and what I'm good at.					5	
If my plan doesn't work, I try another one to meet my goals					5	
Sub-Total						**25**
Goal Setting and Achievement	**1**	**2**	**3**	**4**	**5**	
I believe that I can set goals to get what I want.					5	
I like to make plans to meet my goals.					5	
I begin working on my plans to meet my goals as soon as possible.				4		
I like to begin working on my plans right away.				4		
I am willing to try another way if it helps me to meet my goals.						**23**

Sub-Total						
Self-Regulation and Management	**1**	**2**	**3**	**4**	**5**	
I participate in small and large group activities.			3			
I complete assignments on time.				4		
I follow the lecture rules and routines.					5	
I ask for help at appropriate times.				4		
I do the opposite of what I feel like doing			3			
Sub-Total						**19**
Self-Awareness and Knowledge	**1**	**2**	**3**	**4**	**5**	
I defend my needs and interests to anyone who questions them.				4		
I do not feel constrained by others' opinions in setting goals and expectations for himself.					5	
I often consider my parents' suggestions when making choices and plans, but the final plans taken to meet my goals are my own.				4		
I am motivated to work on a project as long as it takes, using whatever approaches are necessary, to get it right.				4		
I schedule my activities; I am confident I can complete them accurately and on time					5	
Sub-Total						**22**
Grand-Total						**110**
Average						**(110/25) =4.4**
CGPA						**2.8**