UNIVERSITY FOR DEVELOPMENT STUDIES

EXPLORING THE QUALITY OF INSTITUTIONAL SUPPORT SERVICES ON ACADEMIC ACHIEVEMENTS OF STUDENTS IN DISTANCE LEARNING ENVIRONMENTS: A CASE OF THREE LEARNING CENTRES OF THE INSTITUTE OF DISTANCE AND CONTINUOUS LEARNING, UDS.

BEATRICE ANANSAH

2024

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE

EXPLORING THE QUALITY OF INSTITUTIONAL SUPPORT SERVICES ON ACADEMIC ACHIEVEMENTS OF STUDENTS IN DISTANCE LEARNING ENVIRONMENTS: A C OF THREE LEARNING CENTRES OF THE INSTITUTE OF DISTANCE AND CONTINUOUS LEARNING, UDS.

BY

BEATRICE ANANSAH

(B.A IDS, Social and Development Administration)

(UDS/MTD/0010/21)

THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL MANAGEMENT AND POLICY STUDIES, FACULTY OF EDUCATION, UNIVERSITY FOR DEVELOPMENT STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY IN TRAINING AND DEVELOPMENT

AUGUST, 2024

DECLARATION

Candidate's Declaration

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

Signature ----------. Date: 13th December, 2024

Candidate's Name: Beatrice Anansah

ID: UDS/MTD/0010/21

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised following the guidelines on supervision of the thesis laid down by the University for Development Studies.

13th December, 2024

Signature---------- Date----------

Name: Dr Maxwell K. Nyatsikor

ABSTRACT

The study sought to explore the quality of institutional support services on academic achievements of students in distance learning environments of three learning centres of the institute of distance and continuous learning, UDS. The correlation and descriptive survey designs were employed to conduct the study. A total sample of 342 was selected using purposive, stratified as well as simple random sampling procedures. Questionnaire and test scores (standardized quiz items) were used as data collection instruments. Pearson Product Moment Correlation as well as multiple regression analysis procedures were used to analyze the data for the study. The results of the study show that face-to-face element adds an opportunity for colleagues to bond, develop social linkages and an added value being able to gain insight from other students. Findings of the study also show that the use of instructional materials (course modules) help in the attainment of teaching and learning objectives as well as the development of learners' intellectual abilities. Based on the findings of the study, it is recommended that the Institute of Distance and Continuous Learning, University for Development Studies, should continue to see to it that face-to-face contact sessions are conducted in a manner that satisfies the needs of distance education learners and ensuring the process of continuous improvement of the distance education programme. Secondly, the Institute of Distance and Continuous Learning should provide suitable learning environment at the various study centres so that students attend lectures regularly for effective tutoring and learning.

ACKNOWLEDGEMENTS

Writing a thesis is never entirely the work of the author alone and it would be impossible without support from various individuals and institutions. First and foremost, I wish to express my greatest appreciation to my supervisors Dr. Maxwell Nyatsikor, his supervision, criticism and encouragement made the completion of the work possible my Head of Department Dr. Quansah,, and all lectures within the Department as well as Mr Bismark Ampomah, God bless you all.

I also wish to express my profound gratitude to Institute of Distance and Continuing learning UDS, Tamale, Yendi, and Bimbilla.

Finally, my gratitude to all Panel members who offered constructive criticism and suggestions.

DEDICATION

This thesis work is dedicated to the almighty God, family and colleagues.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

This chapter presents the study's background, statement of the problem, purpose, research questions, and hypotheses. It also contains the study's significance, limitations, delimitations, and organisation. Higher education institutions have to compete harder to survive in the market. They ought to offer top-notch instruction (Shikulo & Lekhetho, 2020). This may be accomplished by giving their clients, who are the students, effective support services. According to Arko-Achemfuor (2017), one of the essential elements of institutional services should be a strong institutional support system to guarantee that students enrolled in distance learning programmes have a successful and long-lasting learning experience.

Even though distance learning is becoming a more popular and practical option for expanding access to higher education, it still has drawbacks, including lower graduation rates and higher attrition than in-person instruction at traditional universities (Simpson, 2016). This is especially the case where the majority of students are employed full-time and are mature adults. Numerous students begin their education but never finish, negatively affecting their employment possibilities and sense of self (Torka, 2020; van Rooij, Fokkens-Bruinsma & Jansen, 2019). This might be explained by the rising number of ill-prepared distance education learners, which puts more strain on professors and results in poor oversight and student assistance. Because of this, the supervisory position is becoming more complicated as higher education institutions and supervisors are under growing pressure to offer high-quality supervision to draw and keep more students (Baydarova et al., 2021).

Support services are important components of all educational institutions, but they are especially important for distance learners, who require them more than their traditional, in-person counterparts. The fact that instructors and students do not share a physical space and that intrapersonal rather than interpersonal interactions are often needed in remote learning settings are two of the main causes of this. Because of this physical and transactional distance, some students in distance learning programmes experience feelings of isolation. Additionally, some people struggle to feel like they belong at the institution due to a lack of desire, self-management abilities, or a need for socialisation, which increases their likelihood of failing or quitting an online course. Support services have become essential for an efficient and long-lasting remote learning system to solve these issues (Conference: 2018 AECT).

Support services could enable more meaningful learning experiences for everyone beyond the endeavour to improve student retention or lower dropout rates in open, distance, or online education (Giljaurena, 2014). The research community has produced copious amounts of information showing a significant performance gap in coursework and graduation rates between conventional and distance education students. According to Woodley & Simpson (2014), the rate of dropouts among remote learning students is the "elephant in the room," with most institutions worldwide facing significant challenges in maintaining their distance learning student populations. Simpson (2013) argued that there is a "distance education deficit," with many distance-learning schools having graduation rates less than 25% of traditional educational institutions. Sampson (2013) maintained that this might be linked to the methods used to offer distance learning, particularly regarding the resources available to assist students enrolled in distance learning. Russell (2006) and Brinthaupt et al. (2014) challenge the delivery models used for distance education by most universities. They believe a gap exists because the universities cannot fully

engage distance students in all facets of their studies and fail to conceptualise the distance student. These sources broadly support these opinions. As was already established, distance learning presents unique difficulties when participating in online coursework. Learners' self-efficacy about computers and the Internet is crucial to the success of an online learning process (Dada et al., 2018). Issues of learner assistance may also arise in online distance learning. It is possible that, in contrast to college students, learners might not have access to the same resources and orientation programmes. As noted by Lukwekwe (2015), researchers in the field of distance learning have also noted that providing this type of education is not difficult. These difficulties include those related to student support services (Reuben, 2010), teaching and learning challenges (Muganda & Kabate, 2012), mixed mode distance learning delivery challenges (Muganda et al., 2012), language as a barrier in distance education (Msoka & Vuzo, 2012), and post-completion challenges (Bitegeko & Swai, 2012). Despite the difficulties mentioned above, Ghana is seeing increased demand for remote learning at the postsecondary level. Therefore, it is critical to identify the variables affecting Ghana's demand for postsecondary education.

Around the world, distance learning is acknowledged as one of the most successful and economical approaches to teacher preparation. Teachers who receive training through distance education continue to work while they study, and they can quickly use the knowledge and skills they learn in the classroom. In order to enhance the human resource base in the teaching sector, distance education tackles the core problems of access, retention, and quality education. The basic teacher education policy (Directions for Basic Teacher Education, Vol. 1, 2000) also emphasises the necessity of distance education as an instructor training tool.

Ghanaian educational institutions have adopted dual-mode institutions, particularly at the tertiary level. Many teachers in basic and second-cycle institutions have embraced this style and enrolled

to better themselves (Baiden, 2007; Henaku & Pobbi, 2016). Many conventional universities and other higher education institutions around the world have introduced distance education to run parallel with the conventional programme in the same institution given the lack of facilities, administrative procedures, and staff to oversee the distance and open learning programmes have drawn the attention of policymakers, educationists, researchers, and planners who are still dubious about the legitimacy and calibre of open and distance learning (Bates, 2005; Henaku & Pobbi, 2016). This is even though distance education produces the critically needed competent human capacity. According to Adentwi (2002) and Agbofa (2012), distance learners face several challenges in Ghana, such as financial strain, time constraints, and social isolation. Research has also indicated that most educators choose traditional classroom settings over remote learning because they feel that the latter degrades the programme's quality for educating remote instructors, as remote learners are typically not granted faculty support or privileges. However, Nsiah (2011) contended that distance education in the US is influenced by several factors, such as programme development, technological vigilance, hiring and retaining qualified staff, conducting sound assessments, and obtaining initial and ongoing funding, ultimately determining a programme's success. In his advice to organisations that provide distance learning, he stated that administrators should make an effort to give all the tools and assistance required to operate a successful programme.

1.2 Statement of the Problem

Good institutional support services are crucial for helping students manage the demands of remote learning in their personal and academic lives (Shikulo & Lekhetho, 2020). Therefore, students' intellectual, emotional, and social links to the university will be jeopardised without competent and efficient institutional support services. Policymakers at distant learning institutions may find

it easier to create policies and plans for academic support for students and to give the required direction to enhance the quality of their services if they have a better grasp of institutional support services, their significance, and their contribution. In theory, these services should lower the institution's dropout rate and raise the success rate of its students.

The high dropout rate in distance education is an issue despite its widespread usage in many nations (Shikulo & Lekhetho, 2020). High rates of attrition and repetition among distant learners make the problem worse. Lower completion and success rates at these institutions may come from this circumstance, which may also raise the chance that students may fail and give up on their education (Ciobanu, 2013). The high failure and dropout rates at Open Distance Learning institutions in Africa require additional measures beyond the text-based handouts often provided as institutional support (Simpson, 2015). To solve difficulties, attend to students' needs, encourage perseverance, and maximise academic achievement, these institutions should offer efficient institutional support services. If strong assistance is not given to every student, ensuring students' access to school will not be sufficient to advance equitable educational chances (Shikulo & Lekhetho, 2020).

To satisfy students' various requirements and expectations, institutional support services must be a fundamental component of the entire educational system (Moewes, 2005). Distance learning institutions have introduced these services to assist students in their academic journey, according to Moewes (2005) and Simpson (2015). Moreover, Kelly-Hall (2010) demonstrates that institutional support services are intended to be included in the system as they enhance academic achievement and the quality of the learning process (Ciobanu, 2013). Maintaining HE institutions' competitive edge requires them to provide efficient institutional support services. Distance learning institutions must deliver high-quality instruction through efficient institutional support services to be profitable and marketable. Students (their clients) will likely drop out, fail, or transfer

to another school without efficient institutional support services (Shikulo & Lekhetho, 2020). Distance Learning schools must take a more student-centred approach and offer high-quality services to their students in order to be relevant, competitive, and up-to-date with economic trends. This is important because satisfied clients (students) draw in new business (Shikulo & Lekhetho, 2020).

Student satisfaction with these services can boost an institution's employability and advancement rates while helping it draw in new students and retain existing ones. In the end, distance learning organisations must provide effective and efficient institutional support services to cater to each student's unique needs and goals, improve their academic performance and learning environment, and give them the tools they need to become self-directed, lifelong learners (Shikulo & Lekhetho, 2020). Credible data on student success rates in this area always provide a startling and unhappy image of the Higher Education sector globally, despite the industry's best efforts to offer possibilities for success to all students (Khumalo, 2018). Numerous empirical studies have also been conducted on the causes of poor student success rates. Higher education institutions confront enormous difficulties and complexity, especially regarding completion rates, closely linked to startlingly low success rates (Khumalo, 2018). Student performance (academic accomplishment), as determined by retention and degree attainment, has not increased despite recent major improvements in access to higher education (Khumalo, 2018). Despite substantial government financial incentives, numerous legislative initiatives, and well-meaning institutional efforts, retention and success rates remain incredibly low. To boost institutional academic accomplishment, leaders of remote learning institutions are under pressure to establish and implement digitally mediated, constructively focused instructional possibilities (Khumalo, 2018).

There are ongoing shortcomings and inadequacies in that institutional support framework when support services are deemed inadequate over a long period. In many remote learning institutions, it is evident that unsuitable models and frameworks dictate how support services are provided and delivered. This is evident from the following facts:

First, the institution's viewpoint determines which support services are needed. This point of view contradicts the idea that students, as service consumers, are the greatest judges of their educational requirements and how best to meet them (Simpson, 2002; Schneider & White, 2004). Furthermore, Zeithamal et al. (1990:16) stress that service users' definitions of what counts as a criterion for assessing service quality are the only ones that matter. Furthermore, there has been an increased focus on the perceived quality of services from the viewpoint of university students (O'Neill & Palmer, 2004).

While it is well known that distance learning institutions consider quality from the viewpoint of their students, little is known about how well students feel about institutional support services. Furthermore, little is known about the factors influencing service quality that students enrolled in distance education programmes may use to assess the institutional support services offered by their schools. The researcher thinks it is doubtful that frameworks or recommendations for support services that are only based on the opinions of those who do not utilise the services would be able to meet the demands of the students. It may be the case that the definition and assessment of institutional support services are being done using inaccurate standards, procedures, and metrics. The service users are the greatest assessors of their educational requirements and how they should be met.

Every day, students engage with their learning environment. These encounters partly influence students' perceptions and experiences of the services they get. The quality of the support services

may be understood by looking at the students' expectations and views. By looking at the quality of these services from the students' viewpoint, the university will better comprehend how the students feel about the performance and delivery of services and determine what kind of support services would best satisfy the students' needs.

One of the organisations in Ghana that spearheaded the provision of remote education is the University for Development Studies. Over the years, it has accumulated several experiences that will be useful for developing distance education in Ghana. The remote education programme has enormous promise for reaching more students, reaching populations who were not previously able to access education, and reaching these populations with a curriculum that is high-quality and consistent in both content. According to Tesfaye (2002), the main issues that have a big impact on the success of distance learners at the tertiary level are the discrepancy between the needs of distance learners and the availability of tutorial services, how the self-learning materials (modules) are presented and the time it takes to distribute them; ineffective organisation and administration; lack of a set of standards for hiring tutors and course developers; lack of qualified tutors in distance education; and inadequate facilities.

Distance education researchers have investigated students' academic accomplishments with institutional support services (Owusu-Mensah, 2006; Panagiotis, 2010; Petrie, 2014). The main focus of the researchers' findings was the guidance and counselling, tutor qualifications, tutoring programme structure, and administrative support; however, they neglected to include other crucial factors like in-person meetings, course materials, a supportive learning environment, student readiness, and tutorial attendance. Other scholars ignored the semi-urban centres and concentrated their study on urban areas (Accra, Kumasi, and Cape Coast). The semi-urban areas covered in the current study included the Tamale, Bimbilla, and Yendi study centres. Literature has noted that

there has not been enough investigation into how institutional support services affect academic success. Consequently, the current study aims to close the research gap in the literature.

1.3 The Purpose of the Study

This study aimed to explore the quality of institutional support services for students' academic achievements in distance learning environments: a comparative analysis of three learning centres of the Institute of Distance and Continuous Learning (UDS).

The study specifically sought to examine:

1. The relationship between the availability of course materials and academic achievement of distance education students.

2. The relationship between face-to-face tutorial sessions and academic achievement of distance education students

3. The relationship between tutorial attendance and academic achievement of distance education students

4. The relationship between conducive learning environment and academic achievement of distance education students

5. The relationship between students' preparedness and academic achievement of distance education students

1.4 Research Questions

The study sought to answer the following research questions.

1. How does the availability of course materials relate to the academic achievement of distance education students?

2. How do face-to-face tutorial sessions relate to the academic achievement of distance education students?

3. How does tutorial attendance relate to the academic achievement of distance education students?

4. How does a conducive learning environment relate to the academic achievement of distance education students?

5. How does students' preparedness relate to the academic achievement of distance education students?

1.5 Hypothesis

The study is guided by one hypothesis.

H_0: Institutional support services (course materials, face-to-face, conducive learning environment) do not directly predict the academic achievement of distance education students.

H_1: Institutional support service (course materials, face-to-face, conducive learning environment) directly predict the academic achievement of distance education students.

1.6 Significance of the study

The study's conclusions will provide programme designers and implementers with important considerations as they prepare to expand Ghana's distance learning programme. It is anticipated that these institutions will be able to take the necessary actions to ensure that these support services are prioritised during the planning and development process in light of the study's useful information and highlight each support service's contribution to distance education institutions.

The results will also inform distance education providers that by strengthening and improving these support services, students' academic performance will be enhanced while increasing their knowledge base and retention, decreasing their isolation rate, and strengthening their institutional connections.

1.7 Delimitations of the Study

The study was delimited to second-year degree students at three learning centres of the University for Development Studies' Institute of Distance and Continuous Learning. Data on the academic achievement of students enrolled in the B.Ed. in Basic Education, B.Ed. in Early Childhood Care Education, and B.Ed. in General Agriculture were used.

1.8 Limitations of the Study

Several factors limited the study. Firstly, using only second-year students does not allow the researcher to determine whether the views of first- and third-year students are significantly different or similar to those of the sample used. Moreover, relying on samples from UDS limits the study's ability to generalise the findings to those of other Universities offering similar educational opportunities for learners.

1.9 Organisation of the Rest of the Study

The study is organised into five chapters. Chapter One dealt with the background, problem statement and the study's objectives. The study's research questions and hypothesis, as well as its significance, delimitations and limitations, are also explained in the same chapter. Chapter Two reviews literature related to the study. The chapter discusses the theoretical, empirical and conceptual frameworks in detail. Chapter 3 focuses on the research methodology applied to the study. Specifically, the research approach, design and population are explained. In addition, the

sampling techniques, data collection and analysis procedures are described and justified. Ethical protocols adhered to are also explained in the chapter. The discussion of results is presented in Chapter 4, while Chapter 5 presents the summary and conclusions drawn from the study's findings. Recommendations and suggested areas for future research are also made in chapter five.

1.10 Summary of the Chapter

This chapter focused on the investigation's background, statement of problem, research questions, and hypothesis. It also justified the study's significance, limitations, and delimitations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature related to the study. The review is divided into two parts: theoretical and empirical. From the empirical review, a conceptual framework is developed to show the connections among the independent and dependent variables. The education sector offers support services to create and maintain learning communities (Kumtepe et al., 2018). As a result, institutional support services aim to increase student satisfaction with perseverance, retention, academic success, and career progression. According to Robinson, as referenced by Nsamba (2017), academic, administrative, psychological, and technological support services are examples of institutional support services in distant learning. We will talk about these services in more depth presently.

2.3 Theoretical Review

The study's theoretical base is anchored on Transactional Distance Theory and the Theory of Autonomy and Independent Study. These two theories are reviewed because they have complementary strengths in explaining the topic under investigation.

2.4 Transactional Distance Theory

The first attempt in English to define distance education and to articulate a theory appeared in 1972. Later, this was called the theory of transactional distance. What was stated in that first theory is that 'distance education is not simply a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept. It describes the universe of teacher-learner relationships that

exist when learners and instructors are separated by space and/or time. This universe of relationships can be ordered into a typology that is shaped around the most elementary constructs of the field - namely, the structure of instructional programmes, the interaction between learners and teachers, and the nature and degree of self-directedness of the learner. The concept of transaction. is derived from Dewey (Dewey & Bentley, 1949). As Boyd and Apps (1980: 5) explain, it 'connotes the interplay among the environment, the individuals and the patterns of behaviours in a situation'. The transaction that we call distance education occurs between teachers and learners in an environment with the special characteristic of separating teachers from learners. This separation leads to special patterns of learner and teacher behaviours. The separation of learners and teachers profoundly affects both teaching and learning. With separation, there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and the learner's inputs. It is this psychological and communications space that is the transactional distance.

Psychological and communication spaces between any one learner and that person's instructor are never the same. In other words, transactional distance is a continuous rather than a discrete variable, a relative rather than an absolute term. It has been pointed out, for example) In any educational programme, even in face-to-face education, there is some transactional distance (Rumble, 1986). Seen in this way, distance education is a subset of the universe of education, and distance educators can draw on and contribute to the theory and practice of conventional education. Nevertheless, in what we normally refer to as distance education, the separation of teacher and learner is sufficiently significant that the special teaching-learning strategies and techniques they use can be identified as distinguishing characteristics of this family of educational practice. Even though there are recognisable patterns, there is also enormous variation in these strategies and

techniques and the behaviour of teachers and learners. This is another way of saying that there are many different degrees of transactional distance within the family of distance education programmes. It cannot be emphasised too strongly that transactional distance is a relative rather than an absolute variable. The purpose of distance education theory is to summarise the different relationships and strengths of relationships among and between these variables that make up transactional distance, especially the behaviours of teachers and learners. It should be pointed out that other variables exist in 'the environment, the individuals and the patterns of behaviours' besides those of teaching and learning. This means there is room for more than one theory. There is a need for a theory of distance education administration, a theory of distance education history, a theory of distance learner motivation, and so on. The example of distance learner motivation also points out that some theories, such as the theory of transactional distance, are more global than others. That room exists for more finely focused molecular theory within the framework provided by a more molar theory. The special teaching procedures fall into two clusters; a third cluster of variables describes learners' behaviours. The extent of transactional distance in an educational programme is a function of these three variables. These are not technological or communications variables but variables in teaching, learning, and the interaction of teaching and learning. These clusters of variables are named Dialogue, Structure, and Learner Autonomy.

According to transactional distance theory, pedagogy influences distance learning more than the actual or perceived distance between the teacher and the student. It describes the type and extent to which a teacher and student are separated during the educational process. Michael et al., 1972, and cited by Saykılı (2018) postulated that separating students and teachers during a distance learning session can "lead to communication gaps, a psychological space of potential misunderstandings between the learners' and instructors' behaviours" (Moore & Kearsley, 1996, p.

200, Zeiter, (2018). The transactional distance theory was characterised by Moore (2020) as a psychological and communications space to be crossed, a space of potential misunderstanding between the instructor's and the learner's inputs. Stated differently, it is a psychological and communicative space between the teacher and the students.

Moore (2020) asserts that learning does not always occur when people are in the same location. According to the hypothesis, it is not always true that learning cannot occur while individuals are physically distant. The learning outcome is determined by the psychological distance in the learner's learning context, not the actual distance. Moore (2020) argued that three factors- dialogue, structure, and learner autonomy- need to be considered, such as the transaction between professors and students in distant learning. The level of response between the teacher and the student in any given educational programme is referred to as dialogue. It ends with the learners' difficulties being solved and clearly defining the educational goals and the teacher's collaboration and understanding (Giossos et al., 2009). This is influenced by the course material or subject matter, the teacher's educational philosophy, the student and teacher's personality, and environmental elements - the most significant communication medium. For example, a curriculum that uses radio or television as the primary communication between the teacher and the self-directed student does not allow discussion.

According to Moore (2020), the most crucial factor to consider in this regard is not the quantity of discussion but rather its calibre and efficacy in helping the distant student address any issues they may have with their education. Moore (2020) names the nature of the course structure as the second component, defined as the degree of rigidity or flexibility of the course. The degree to which an educational programme adapts to the unique demands of each student is determined by its structure. It conveys the degree to which learning objectives, instructional strategies, and

assessment techniques are ready for, or can be modified to accommodate, learner objectives, strategies, and assessment techniques. This factor includes things like how much the course's goals and objectives are predetermined, what kind of pedagogical model is used to teach it (teacher-vs. student-centred, for example), how the course is assessed, and how well it can adapt to the needs of each student (Zhang, 2003). According to Moore (2020), in a highly structured educational programme, the goals and instructional strategies are predetermined and unchangeable for the student.

Learner autonomy, the third element, relies on the first two since it describes how learners view their freedom and reliance during the course. A learner's sense of self-direction or self-determination is closely linked to their level of learner autonomy. This can be greatly influenced by the dialogue, the degree of rigidity or flexibility in the course design and delivery, and the "extent to which the learner exerts control over learning procedures" (Giossos et al., 2009). According to Moore's hypothesis, there is an inverse link between these three variables, meaning that if one increases, the others may decrease proportionately (McIsaac & Gunawardena, 1996; Altawalbeh & Al-Ajlouni, 2022). For instance, a rigidly structured course may result in a decline in the calibre of discussion and a diminished sense of student autonomy, which may heighten the students' sense of transactional distance. Moore (2020) points out that while there is a chance for learners to become confused or dissatisfied when course structure falls below a certain level, there is a chance that the perception of transactional distance may rise.

2.5 Theory of Autonomy and Independent Study

Moore (2020), in his theory of independent study, was concerned that the progress of distance education would be hindered by the lack of attention to what he called the “macro factors.” He indicated that in this area of education, there was a need to describe and define the field,

discriminate between its various components, and identify the critical elements of the various forms of learning and teaching.

Moore (2020) defined independent study as an attempt to structure education to provide students with more flexibility in their learning. It gives students the freedom to complete assignments and activities at their own pace and schedule, allows them to continue studying in their settings, and helps them acquire the skills necessary to continue learning independently. Independent learning and teaching may be defined as an educational system where communication is mediated between the learner and the instructor because the student is independent and separated from the teacher by time and location (Moore, cited in Wang et al., 2023). Learner autonomy, student-teacher interaction, and specific course design aspects are all included in distance education (Holmberg, 1967 cited in Arhin et al., (2020). According to the following criteria, Moore, cited in Beycioglu et al. (2021), categorised distance education programmes as either non-autonomous (teacher-determined) or autonomous (learner-centred): autonomy in determining the objectives, autonomy in study techniques, and autonomy in evaluation. Many argue that teachers may not even be necessary for online learning. According to Moore (1990) cited in Wang et al. (2023), distant learning strikes a close balance between freedom and interaction. According to him, learning entails interaction or tasks involving two-way communication between a learner and another person, as well as reactions and replies.

Moore, citing Wang et al. (2023), defined interaction as involving actions like counselling, tutoring, and communicating with students; instructing via interactive teleconferencing; organising students into discussion groups; and participating in residential events. When he spoke about freedom, he meant the ability to read books, view or listen to broadcasts, write essays and assignments, work alone on a computer, do surveys, experiments, and project work at home.

According to Moore (2020), many people have a propensity to believe that learning is about finding the solution; however, teaching is about imparting "facts" from the instructor to the student, who merely requires a strong memory to retain all this knowledge. According to him, gaining a "higher order" grasp of your topic at university entails realising the diversity of viewpoints and the intricacy of concepts found in all fields of study. This takes time, and you must be willing to experiment independently with novel concepts and methods.

Empirical Review

The empirical review is done under the following subheadings.

(i) Definitional issues of Academic achievement and performance **(ii)** History of institutional support services in Distance Learning **(iii)** Institutional Support system **(iv)** Course or Learning Materials and Academic Achievement **(v)** Face-to-Face tutorial session and Academic Achievement **(vi)** Tutorial Attendance and Academic Achievement **(vii)** Conducive Learning Environment and Academic Achievement **(viii)** Students' Preparedness and Academic Achievement **(ix)** Current status of institutional support services in the Distance Learning context

2.1.1 Definitional Issues of Academic Achievement and Performance

One of our educational system's most important concerns is student academic success. It may be said to be the main objective of education. There is a plethora of literature regarding students' academic success. What defines student academic accomplishment has been the subject of several scholarly and research endeavours, especially in education (Cope & Kalantzis, 2000; Cummins, 2000; Nieto, 2004). The terms "learning outcomes," "academic performance," and "academic achievement" are interchangeable and denote the various degrees of observable and quantifiable behaviour shown by students. The phrase "students' academic achievement" is often used in

discussions on higher education (Hijazi & Naqvi, 2006). The word has frequently prompted academics and researchers to pose pertinent queries, such as what qualifies as academic performance and how to quantify and assess it for students (Burns & Darling, 2002).

Determining what constitutes good student outcomes as tangible markers of academic progress is a crucial first step in developing a comprehensive picture of students' academic achievement. There does not seem to be a single, widely recognised definition of academic achievement, as noted by several accomplishments' publications (Tinto, 1993). It is a multifaceted construct comprising a learner's behaviours, attitudes, and skills (Hijazi & Naqvi, 2006). Academic accomplishment for students is the sum of their learned attitudes, abilities, and information that will enable them to live fulfilling lives. Rather than being measured against a set, grade-based standard, it is the growth in the knowledge and skills that pupils possess compared to where they began to realise their full potential. This implies that while pushing students to master subjects they excel in, teachers should encourage and help them in areas where they falter.

Academic accomplishment has been measured by researchers using a range of techniques and procedures. Several frequently used metrics are available for assessing students' academic progress, including grade point averages, report card grades, teacher evaluations, achievement test scores, standardised test scores, grade retention, cognitive test scores, and dropout rates (Burns & Darling, 2002; Hijazi & Naqvi, 2006). For the sake of this study, academic accomplishment for students is defined as what they accomplish in the classroom through the completion of assigned work. Assessments are typically made using teachers' evaluations, test results, examinations, assignments, and presentations. Usually, examinations, quizzes, and instructor evaluations are used to evaluate it.

According to Simpson and Weiner (1989), accomplishment tests aim to gauge students' progress toward a commonly recognised pattern of knowledge and abilities through systematic instruction and training in the classroom. When students feel personally acknowledged, think their work counts, and feel in control of their learning outcomes, it is evident that they have achieved academically. These encourage students to take an active role in their education, reflect on what they are learning, and make connections between what they are learning and what they have already experienced and will encounter.

Policymakers, measurement specialists, and educators disagree on measuring children's academic progress (Johnson, 2003; Fryer & Elliot, 2007). Academic accomplishment may be measured for various reasons and at different levels (Hijazi & Naqvi, 2006). Simpson and Weiner (1999) defined it as evaluating students' observed behaviour using a battery of standardised examinations. It is often designed and standardised to assess students' subject-matter ability. One common instance is when instructors administer formative and summative assessments to gauge their student's comprehension of the material and provide grades to parents, students, and the education department. These assessments are used to evaluate pupils' academic achievement.

Bruce and Neville (2009) state that standardised achievement tests created specifically for the research subjects are used to gauge academic success. According to them, academic success is determined by what is accomplished by the conclusion of the course. They came to the conclusion that a test needed to be valid over time in order to be standardised. Test results and grade point averages inform students about the material they have mastered and add to the credits needed to graduate. Additionally, they offer data for college admissions (Alexander et al., 1997; Adekola, 2008). Grades are composite metrics that consider not just the material understanding of pupils but also other variables, including attendance, classroom involvement, attitudes, and growth over time.

Because grades indicate accomplishments concerning other students in the classroom and achievement by a teacher's standards, they are a significant indication within the academic achievement outcome area.

Remembering that a person's academic accomplishment comprises more than a single, quantifiable behavioural observation is crucial. To comprehensively describe students' academic progress, a full review of the cumulative academic programme performance up to graduation and an assessment of how well the student achieves the programme's aim are necessary. The fact that the goals of modern education vary implies that we should try to gauge its effectiveness in a number of ways (Wainer & Steinberg, 1992).

2.7 History of Institutional Support Services in Distance Learning

There are 54 nations on the African continent, and each has unique politics, history, and culture (Moja et al., cited by Uslu & Stausberg, 2021). These nations have diverse high school systems due to their histories, political landscapes, and cultural traditions. Those who engage with kids and are interested in offering them professional and discipline-based support, development, and services that contribute to broadly defined student success have shared their experiences and acquired lessons because of these distinctions. In the end, student development, professional, discipline-based support, and services resulted in the creation of services like Student Affairs, which subsequently prompted the creation of student support services today (Moja et al., 2014).

The names "student affairs," "support," "development," and "services" originally alluded to the academic, social, and personal aspects of student life. Following these services, institutional support services were developed with the goal of improving the educational experience for students and assisting in their overall development (Moja et al., 2014). In response to students'

need for encouragement and support to succeed in their educational journey, institutional support services were included in the distance learning system (Tait, cited in Markova et al., 2017). These services were also created to enhance the quality of instruction at ODL institutions and lower dropout rates. The services covered various activities and topics from early academic inquiry until degree completion. According to Tait (2003), efficient information and management systems offer various activities that influence instruction and raise students' self-assurance, progress, and sense of self.

The concept of institutional support services originated in the context of evolving distance learning versus the industrial model and changing educational practices. Students today seek and create their knowledge and learning instead of passively consuming it (Sweet, 2018, cited by Niemi & Kousa, 2020). The development of remote education, formerly known as correspondence education, was closely linked to the creation of institutional support services. This kind of instruction was first made available in Europe in 1884 when Isaac Pitman's shorthand course was introduced and made available through postal services. Despite being far from their professors, the quick feedback students received on their work was a defining feature of this method (Tait, 2003). This resulted in William Briggs, a pioneer in assisting University of London students, founding Correspondence in the University in 1887 (Tait, 2003).

The University of London introduced a range of teaching and learning programmes for external study in 1858, which marked the beginning of the history of institutional support services in distance learning institutions (Tait, 2003). With this technology, students might get a degree online by having remote access to the university's teaching and learning materials. The method demonstrated that distance was not a barrier to learning and achieving the necessary information

or abilities, which made it fascinating and extraordinary. As this approach gained traction in the UK, Cambridge University decided to use it and still uses it for instruction today (Tait, 2003).

Implementing Nipper's technology-led approach, Peters' institutional history analysis, and Anderson and Dron's pedagogical framework of analysis were also associated with establishing institutional support services in these institutions. According to Tait (2014), this generation was infamous for lacking institutional support systems. The Open University of the United Kingdom was established in 1968 to address this. From then on, institutional support services received more attention, and the university began to create and extend the tutor position for the first time. They served as the backbone of the university's support structure. They were supposed to offer more broad assistance in pursuing students' achievement and topic-specific assistance for individual students. According to Tait (2014), among the responsibilities of tutors in terms of student support were:

Providing individualised support through instruction and learning; conducting assessments; monitoring student progress and taking appropriate action when necessary; providing students with opportunities for social learning, preferably in groups, and a personal touch by contributing to their education; and providing students with the necessary support in administrative and other systemic matters.

The word "constructivist" was later used to describe these tutorial responsibilities, resulting in hiring part-time tutors to assist university operations. Tutors were responsible for helping individual students make sense of the learning materials they were given. Redefining tutors' duties also paved the way for establishing many study centres, which worked with regional centres to offer university-based student support. Students' need for one-on-one engagement with their instructors served as the foundation for the position of tutors. Due to the absence of these

interactions, the student support and curriculum delivery systems were split apart, resulting in the services being an essential component of the university system as a whole (Tait, 2014).

Kamau (2012) states that the initial iteration of distance learning, known as distance education, mostly depended on print technology. It gradually included more advanced electronic technologies, such as audio files, as they became available in various regions of the globe. The term "correspondence education," popularised in Britain, France, and Germany, originated using the mail service. Distance learning was called "home study" in America and "external studies" in Australia to set it apart from institutionalised traditional face-to-face instruction. As was previously noted, Isaac Pitman started teaching shorthand by mail in 1844. In contrast, the University of London was the first college or university in Europe to provide degrees and certifications through distance learning when it was established in 1858.

Many institutional support policies were developed in South Africa; without them, equitable access to education would not be promoted throughout the nation (Mays, 1999). Enrolling students without offering them sufficient assistance to guarantee their success is unjust. Many distance learners in South Africa risk failing if they join without sufficient assistance. There has also been the argument that open admissions policies without institutional support services are ineffective and inefficient ways to meet students' needs (Paul, 1991). This suggests that providing institutional support services should be viewed as a crucial component of education system reform and a resolute commitment to equal opportunity and meeting the needs of students (Mays, 1999). Because of this, institutional support services are becoming increasingly recognised as essential to the overall efficacy and efficiency of the system, both domestically and globally. According to Mays (1999), many prosperous distance education establishments globally offer institutional support services to facilitate students' academic performance.

There is no proof of the extent to which policies supporting students enrolled in distance learning have been or are being implemented, even though their necessity has been recognised and validated.

2.1.2 Institutional Support Services

Assistance for students' needs is provided through institutional support programmes. It offers guidance on study techniques, profession selection, housing, part-time work, personal growth, health issues, scholarships, and financial hardships (Gujjar & Haffez, 2008). These services frequently assist students in overcoming various barriers that prevent them from pursuing and fulfilling their declared educational objectives. According to Simpson (2000), learning support services in distance education are extracurricular activities that help students advance in their academic careers and go beyond the simple distribution of course content. These services might include facilities, administrative help, additional reading materials and references, guidance on interpersonal interactions, and moral support. According to Simpson (2000), support services are not just for the cognitive, intellectual, and knowledge parts of student learning; they also provide significant attention to their studies' affective and organisational aspects. Thus, in the context of distance education, "student support services" usually refers to steps that the programme providers take to help students study and lessen the drawbacks of doing so.

Additionally, learning assistance can be given in person or through other mediated means like the phone, radio, or printed materials. These support services are available to help students with any requirements or issues they may be having so they may focus more on their academics (Lynch, 2002). In a distance learning setting, student support services aim to give students the help they need to accomplish their goals (Ukpo, 2006). It offers students free complete services through classroom engagement, academic skill development, academic aid, and career development. Three

main categories can be used to group student support services (Tait, 2000). Primarily, Cognitive Support facilitates and advances learning by acting as a mediator between the consistent and standard components of course content. Furthermore, Affective Support fosters a climate that uplifts students' self-esteem, fosters dedication, and encourages them. The last type of assistance, systemic, sets up information management systems and efficient, transparent administrative procedures that enhance student performance. High-quality learning resources and efficient student support services are prerequisites for successful remote learning. For students to remain motivated and learn successfully, study materials must be sent out on time, and students must receive prompt feedback on their performance.

2.1.2.1 Academic Support

Encouraging academic brilliance in students is the goal of academic support. According to Sembiring (2020), graduate happiness, student engagement, student accomplishment, and institutional loyalty are the keys to achieving academic greatness. Sembiring (2020) defines graduate happiness as the result of students achieving a high-grade point average (GPA), finishing their coursework on schedule, having programme relevance, and receiving social acknowledgement. He says that being actively involved in tutorial sessions, wanting to participate in study groups, completing assignments on time, and being prepared for exams each semester are all examples of student involvement. However, accomplishment is defined as the product of academic excellence, which enables students to meet requirements for academic writing, high marks in tutorials, needed assignment scores, and semester test results. Last but not least, loyalty is described as the ability to maintain academic excellence via consistent registration each semester, dedication to finishing studies, enthusiasm to pursue further coursework at the same university, and willingness to refer people to the university (Sembiring, 2020). Academic

assistance in online learning can take the form of tutorials that facilitate in-person or virtual communication between students and their tutors. Frequent lessons might act as a roadmap for the duration of the course. In addition, they can be used as pacemakers and encourage the creation of study or peer learning groups (BOU, 2011).

2.1.2.2 Administrative Support

As a crucial component of administrative support services for distance learning, university staff members play a major role in fostering a campus environment that helps students feel secure and successful. Kisimbii et al. (2018) elucidate the various services university staff members offer students to encourage them to stick with it. These services include new student orientation, the provision of the academic calendar, study guides, unit-by-unit instruction, and course modules at the start of the semester. These services help students prepare for successful coursework throughout the semester and instil discipline and orderliness in their behaviour toward successful learning and teaching.

2.1.2.3 Psychosocial Support

Psychosocial support (PSS) is described as a continuum of love, care, and protection that improves a person's cognitive, emotional, and spiritual welfare and fortifies their social and cultural connections, per the Regional Psychosocial Support Initiatives (REPSSI, 2022). In order to speak with a counsellor in ODL, a student might need to visit a learning centre. A counsellor aids students in developing a better understanding of themselves and their surroundings through counselling. They may then decide on actions to support their personal, professional, social, and educational advancement and their development, growth, and advancement (Egbo, 2013). Students must

complete this self-evaluation to develop resilience, which will help them deal with the demands of daily life as ODL students and problems like time constraints and isolation.

2.1.2.4 Technical Support

According to Lamidi (2021), there has been a great deal of focus on technology as a driver of open and distance learning. However, ICT support systems have come under fire and are often considered insufficient in preparing students for success (Makoe & Nsamba, 2019; Sanchez-Elvira et al., 2018). Kear et al. (2016:102) believe that the mere existence of technology is insufficient, and institutions must help students with their academic work lest the quality of technology be compromised. Scholars have contended that the availability of high-quality ICT increases the rate of academic success by students (Lamidi, 2021). However, the availability of technology alone is not a magic bullet for success. Students must be able to manipulate and utilise technology to pursue their learning. This necessitates that the institution offers assistance and training.

2.2.1 Course or Learning Materials and Academic Achievement

It is impossible to overstate the importance of courses and instructional materials in teaching and learning. The rationale is that these resources simplify, improve, and make learning sessions enjoyable, engaging, and useful. Thus, the foundation of instruction in the distance learning system is provided by printed course materials. Learning materials or modules are the main source of knowledge for students enrolled in online education programmes. Typically, they are created and printed in a form that makes sense to students. Printed course materials and modules remain the most crucial means of remotely dispensing instructions to thousands of learners, even in developed nations with highly developed open universities and revolutionary changes to their educational systems brought about by mass communication and information technologies. Nwachukwu (2006)

asserts that course materials, or modules, are tools created or obtained to assist instructors in imparting structured information, abilities, and attitudes to students in a learning environment. He emphasised once more that they are instructional tools meant to provide context for the material being taught, making learning less theoretical and more applicable. Salandanan (2013) states that course material development for distance education entails the preparation of print and non-print materials and producing a complete learning experience for distance learners so that students appreciate discussions during lessons. For this reason, a distance education system proposes that every student receives all of the course materials or modules at the beginning of the overall schedule of the programme.

According to Zenebe (2005), a system of approach is used in constructing these course materials, beginning with identifying needs, curricular objectives, preparation of the materials, and assessment of the material's usefulness or efficacy. University of Cape Coast Lecturers are hired to create and construct course materials for remotely attending students. They give the teachers of the various study centres an explanation of the courses and a standard assessment. According to Akuamoah-Boateng, Sam-Tagoe, and Brown (2012), distance education students perceive that they are obtaining equal educational opportunities as their campus-based counterparts due to the collaborative efforts of tutors and lecturers. Learning materials that are not thoughtfully created and developed will be challenging for pupils to understand and may not be appreciated. Plooy (2007) described the qualities of good course materials, which include text interactivity, tasks and exercises that develop abilities, and questions that allow for a critical assessment.

Learning is a complicated process that combines the pupils' motivation, the resources available for instruction, and the teacher's expertise. Since learning materials are the fundamental tools that lead to high academic accomplishment, their availability improves the efficacy of schools (Lyons,

2012). Momoh (2010), who looked at the connection between performance on the West Africa School Certificate Examination (WASCE) and learning resources, lends credence to this claim. The study found a correlation between the resources available for instruction and the academic performance of the pupils. He concluded that since material resources encourage rote learning and make abstract topics easier to understand, they greatly impact students' academic performance. Learning is strengthened when sufficient reference resources are available (Mutai, 2006). According to research, having access to teaching and learning resources is one of the factors that consistently improves students' performance (Department for International Development, 2007). A study was carried out by Osokoya (2007) to ascertain the impact of videotaped instruction on students' historical attainment. He concluded that the mean scores of students taught history using videotaped instructional packages and those taught using the traditional lecture technique differed significantly. According to Osokoya (2007), effective course materials are a reliable indicator of students' academic success. According to Padmanabhan (2001), textbooks and resource materials are essential for efficient teaching and learning; their lack or insufficiency leaves a gap that forces teachers to approach subjects abstractly, portraying them as dull and uninteresting.

Johan (2004) asserts a direct correlation between the use and suitability of teaching and learning resources and school academic achievements. Other supporting resources should be offered since, as Oyedun (2007) stated, the instructor alone cannot fulfil every requirement for an efficient teaching and learning process. This is corroborated by a study conducted by Uyagu (2009), who investigated how students' academic performance in science was impacted by the quality of teachers and the instructional materials utilised. The results showed that students performed better when relevant and improvised resources were made available. The most important factor

influencing learning results is most likely the way the teaching is designed to be delivered to distant learners.

Much research has shown that learning resources significantly impact students' academic performance (Akinleye, 2010; Kochhar, 2012; Abdu-Raheem, 2014). The majority of this research indicates a strong correlation between students' academic success and the learning resources they use. For instance, Oshadumi (2003) studied how learning resources affected students' academic performance in agricultural science. According to the survey, almost 70% of the respondents used the teaching resources efficiently, which improved the academic performance of the pupils. Abdo and Semela (2010) also noted that the majority of institutions see a negative impact on the calibre of graduates they generate when they are confronted with obstacles such as limited facilities and instructional materials. Similarly, Omotosho et al. (2015) discovered a noteworthy distinction between pupils instructed using filmstrips and those who did not.

Once more, Isola (2010) found a correlation between students' academic success and their material resources. He concluded that material resources significantly impact kids' academic success. According to Abass et al. (2012), instructional tools such as printed materials, specimens, and models greatly impact students' academic performance. In their study on the effect of learning materials on academic accomplishment, Likoko et al. (2013) argued that there is a positive correlation between academic achievements and learning materials. Since they are excellent indicators of students' complete engagement in the course and provide opportunities for inquiry, problem-solving, debate, and concept clarification between students and the instructor, Abdul Raheem (2014) has urged teachers to customise their teaching aids. For remote learning to be successful, the educational materials must be carefully thought out and produced.

2.2.2 Face-to-Face Tutorial Session and Academic Achievement

The dynamic connection that students and tutors share, as well as the interactions that take place among students, are essential components of the learning process. The growing demand for higher education has made distance learning an essential component of tertiary education (Krishnan, 2012). Carriere and Harvey (2001) define it as the educational setting in which the student and the instructor are geographically and temporally apart. In addition to offering students various learning options, it upholds the standards set by the traditional classroom system. Face-to-face contact sessions are the most crucial student assistance for distance education learners (Fung & Carr, 2000). In-person lessons have the potential to be the most efficient means for a tutor to transmit knowledge to a class. A tutor may synthesise all concepts and expertise for prospective students face-to-face (Major, 2011). In remote education, face-to-face sessions are typically used to allow students to communicate with their facilitators, who answer their queries and provide more thorough explanations and clarification of the course materials supplied to them (Livingstone et al., 2022).

Tutorial sessions are learner support systems in which the student interacts with the instructor and the course materials, according to Garrison and Baynton (1997). On the other hand, meetings are often held based on the complexity of the course materials, and they are occasionally arranged primarily based on the requirements of the students (Okopi, 2010). Fung and Carr (2000) investigated the elements that affect academic performance and make tutorials in distant learning effective. According to the survey, students anticipate their tutors will educate them first and aid in their understanding of the material. They concluded that, when it comes to remote learning, tutorial sessions are the most important predictor of students' academic success. This suggests that tutors should build a friendly rapport with them to support students in learning and overcoming all

academic obstacles. During contact sessions, the tutor gives students quality instruction and guidance (Panagiotis, 2010).

In in-person tutorial interactions, the tutor offers information about the study programme's goals, evaluates students' progress regularly, allows students a forum to express questions, appropriately responds to their inquiries, and moderates all conversations (IDCL 2003). According to Thorpe (2002), tutorial sessions are facilitated by a designated tutor who responds to inquiries from students by providing more pertinent explanations of pertinent course content. The ultimate goal of these in-person interactions, often called contact sessions, between students and instructors is to help distance-learning students succeed academically (Ogina & Mampane, 2013; Van Zyl & Spammer, 2013). These interaction sessions have been demonstrated to improve practical reasoning, critical thinking abilities (Du Toit et al., 2023), and cognitive and exploratory learning (Olivier, 2016). Additionally, they foster more collaboration and student-to-student dialogue (Zhang & Zhu, 2020). Zhang & Zhu, 2020) assert that it fosters learner empowerment and provides a welcoming environment for students to pursue higher education qualifications.

Many activities involve face-to-face learning, such as modelling desired behaviour, elucidating students' understanding, encouraging active class participation, and generating questions and comments (Meri-Yilan, 2017). One way to accomplish these support systems is by touching the students during tutorial sessions. The majority of university students participating in distant education programmes reside in isolated, rural locations without access to power or with intermittent supplies of it. Other than that, there are not many easily accessible resources to help with the application of technical advancement. As a result, these students rely on the conventional in-person training provided via contact lectures and tutorial sessions held in their study centres (Alonso & Blazquez, 2009). Some distance education students report feeling less alone and

isolated due to the conversations and mutual support during face-to-face sessions (Dzakiria, 2008). Grieve (2013) discovered that in-person interactions strongly predict students' involvement and general academic success. The majority of students believe that in order to foster a feeling of community, face-to-face interactions are crucial (Asaah, 2019).

Distance learning schools currently offer online discussion forums in one form or another. As to Mwale-Mkandawire Margaret. (2019), these forums are a component of the student support services offered to students. These forums are also designed to allow students to converse and readily connect with other students and their facilitators (Balaji & Chakrabarti, 2010). For example, Song and McNary (2011) discovered a significant relationship between students' course grades and the quantity of discussion forums. Similarly, Olivier (2016) looked into how open-distance learning students performed academically in relation to contact sessions and discussion boards. The study found that the averages of final test results of students who had contact sessions with lecturers and those who did not differ statistically significantly. Similarly, Davies and Graff (2005) discovered that students who engaged in greater online discussion did not exhibit noticeably higher academic achievement than those who participated in in-person sessions.

In support of a similar claim, Otter et al. (2013) discovered that students in online-only courses, as opposed to in-person sessions, felt less supported by their professors, more independent in their studies, and less connected to their peers and lecturers. According to some research, students who study independently yet receive guidance from mentors and staff assistance regularly are more likely to feel better connected to their schools and receive warmer tutor support (Beaudoin, 1990). It is crucial to remember that course tutors' capacity to assist remote learners in achieving the goals for which they enrolled in the programme is a major factor in the success of distance education (Thompson & Strodel, 2003). The course instructor should be well-versed in the subject, organised

for the meeting, and equipped to direct students to further resources for assistance (Lawton, 1997; Sherry, 1997). According to Brigley and Kell (2007), the course tutor should assist students in understanding the subject, applying what they have learned to real-world situations, and developing into autonomous learners. Because self-directed learning gives students more control over their education and lessens their reliance on the tutor's lecture function, Beaudoin (1990) views the tutor as a facilitator rather than a lecturer.

Sherry (1996) also stated that the capacity of the tutors to be kind, knowledgeable, self-assured, imaginative, and engaging with the students is the most crucial component of successful remote learning. Face-to-face instructional sessions are intended to cover all of these topics. They use more creative approaches to raise student interest and enhance learning objectives (Holley & Oliver, 2010; Ituma, 2011). According to a 2009 Jelfs, Richardson, and Price poll, tutors and students have diverse perspectives on what constitutes good tutoring. Educators define quality tutoring as having the capacity to enhance efficient learning and enable the transfer of information. When it comes to students, the key components of an efficient tutoring programme are mastery of the course material, critical thinking exercises, and peer interaction. According to Carnwell (2002), it is important to incorporate students' diverse learning styles into the contact sessions. Even if these support services could be offered equitably, students' learning preferences could have an additional impact on their academic success (Beaudoin, 1990). Therefore, the student's preferred learning method will mostly determine whether contact sessions are necessary as a support mechanism. According to Brigley and Kell (2007), students may require more tutoring assistance early in their academic careers but may also require more networking and peer support as they go through their studies.

There is no question that in-person tutoring sessions impact pupils' academic success. It is also critical to demonstrate that other investigations have found contrary findings. Fritsch and Strohlein (1998) researched at the University of Fein in West Germany to examine the impact of in-person contact sessions and guidance on students' academic performance. They concluded that students who participated in study centres performed better on their second assignment than those who did not attend contact sessions. According to their findings, the groups with mentor contact and those without interaction sessions did not significantly vary in the exam outcomes. Similar findings were made by Van Zyl and Spammer (2013) and Bowa (2013), who showed that cognitive, emotional, and systematic learner support services—including contact sessions—did not considerably increase academic attainment. In research conducted by instructors enrolled in the Advanced Certificate in Education programme at Northwest University in South Africa, contact class sessions were statistically unimportant for students' academic progress.

On the other hand, tutorial class sessions had a major impact on student accomplishment, according to Cheung and Kan's (2002) investigation of students' academic performance in a remote learning business communication course at the Open University of Hong Kong. According to Galway et al. (2014) research, in-person instruction favourably correlates with students' academic success. While tutors and facilitators may employ many techniques to support both individual and group learning to deliver education, the main objective is to make sure that students flexibly use resources to reach their objectives (Miller & King, 2003). As a result, students can finish their education and still fulfil their responsibilities to their families, jobs, and communities.

2.2.3 Tutorial Attendance and Academic Achievement

A tutorial or lecture period is an essential component of attendance in higher education. Students' attendance in the lecture or discussion sections of the classroom during their higher education is

crucial to their academic advancement. In a literary sense, attendance refers to how long pupils spend engaged in classroom activities. Attending courses and lectures is a must for success in any educational endeavour. Attendance is vital because pupils who attend school consistently have a higher chance of succeeding academically (Pascopella, 2007). This is because when students miss lectures or tutorials regularly, the relationship between the tutor and the students gets strained. Students risk losing out on all of the opportunities presented during lectures if they fail to attend class. The workload, instructional strategies, university culture, and teacher competency are some of the variables that might affect students' attendance (Marburger, 2001).

Similarly, Dolnicar (2009) asserts that a number of factors could affect a student's decision to attend or not, including the required nature of the subjects they are pursuing, the availability of extracurricular support materials that could lead one to believe that attending the lecture is not required, the lecturer's and students' perceived levels of difficulty, the logistics of subject delivery, and other obligations. According to Silvestri (2003), students may be able to skip lectures due to the academic independence in postsecondary educational establishments. Some students believe they can sit down on their own, concentrate, and absorb the information instead of spending time in class bored and distracted. They believe skipping class can help them study even more (Schoenbrun, 2007). Some people also think that since they are the ones who pay for the lessons, it is their choice whether or not to attend lectures.

Studies reveal that absentee students are far more likely to answer inaccurate questions on the topics taught by those in attendance on that particular day (Marburger, 2001). In a similar vein, Nauer, White, and Yerneni (2008) cite research from Columbia University's National Centre for Children in Poverty, which demonstrates that kids with low kindergarten attendance typically perform poorly in first grade and that kids with a history of low attendance in the early elementary

grades have lower academic achievement levels throughout their school years. The study also shows that chronic absenteeism in early elementary school negatively impacts not only the pupils who skip class but also the academic performance of the entire school. Attending lectures at a university, especially for distance learning students, is beneficial since it allows them to engage with instructors and other students. Given this, attendance does have an impact on academic performance (Kirby & McElroy, 2003). Students who miss class lose opportunities to ask questions, access new curriculum material, and participate in class activities. These lost opportunities have a negative impact on learning.

Most colleges still base their learning methods on lecture and tutorial attendance, despite the focus on quality and flexibility and the advent of new technology. The likelihood of earning a good mark in a particular subject will decline for students who often miss lectures (Massingham & Herrington, 2006). Purcell (2007) asserts that attending class helps students learn in a number of ways. To start, reading assignments and lectures are complementary to one another. This suggests that engaging in tutorial sessions provides a viewpoint on the subject matter that differs from the students. Attending lectures and tutorials adds fresh information to the material, regardless of how well one learns the previous content. Tutors or facilitators review students who have not yet seen samples or applications. Moreover, approaches, theories, and concepts are presented differently than in the book. Second, Purcell (2007) states that attending lectures provides the chance to work with materials under the supervision of instructors or facilitators. As a result, tutors might start a conversation or ask questions to guide students and encourage them to consider the course content in new ways.

Students who attend and participate in class demonstrate their seriousness and sense of ownership over their education. Attending class and taking notes on your own will help pupils acquire the

topic and reinforce their learning far more effectively than skipping courses and reading notes from others. Dolnicar (2004) divided the student body into six groups based on the reasons they attended lectures. Dolnicar (2004) referred to the first group as the "Idealistic" and said they were excited. He claims that these pupils are motivated by lectures and believe that lectures provide learning purpose. This student body is probably older and tends to like lectures. Other academics intrinsically drive this group (Howorth, 2001; Dolnicar, 2005). Dolnicar (2004) characterises the second set of pupils as "Pragmatic." Pragmatic students are curious about what they need to learn, and they pay close attention to details regarding assessment tasks, making sure they do not overlook anything important. These students use an instrumental approach to learning, meaning they are more inclined to study to meet goals rather than enjoy the activity for its own sake (Ditcher & Hunter, 2004).

The pragmatic students and the third group, "averagely motivated students," have many traits. According to Dolnicar (2004), some students view lectures as a valuable source of learning and believe that attending them is simpler than learning independently. Dolnicar (2004) describes the fourth category as "fundamental oriented students," who state that attending lectures will enable them to understand the subject's foundational ideas. According to Dolnicar (2004), the fifth group that stated that attending lectures would ensure that they would not miss any important material is known as "the minimalists." Lastly, the "everything but pleasure" students stated that, aside from finding the lectures enjoyable and inspiring, most of the above reasons apply (Dolnicar, 2005).

According to some, attending lectures is one of the key elements that affects how well students learn and perform academically, particularly in higher education (Stanca, 2006; Latif & Miles, 2013). Because attendance in class does not ensure achievement but can increase the likelihood of success, students must take responsibility for their education (Cohen & Johnson, 2006). Research

has indicated that students who do not consistently attend lectures are more likely to have subpar performance (Hocking, 2008). For instance, Rose, Bolen, and Webster (2007) contended that students performed worse on assignments and tests the more classes they skipped. According to Thatcher et al. (2007), students who consistently attended lectures had higher overall grades than those who did not or seldom did. They concluded that improved academic achievement could be directly correlated with physically attending lectures.

More attendance leads to better performance, backed by empirical data (Adair & Swinton, 2012; Cohall & Skete, 2012; Arulampalam et al., 2012). For instance, plant et al. (2005) examined the connection between Somali higher education students' academic achievement and attendance. They discovered that students' grades improved with the number of lectures they attended. This suggests a favourable correlation between students' performance and the hours they attended lectures (Kirby & McElroy, 2003). In their study, Cohen and Johnson (2006) discovered that class attendance positively and significantly impacted student performance in principles of economics courses at a US institution. According to Dean and Murphy (2013), there was a strong correlation between academic success and attendance, even after adjusting for demographic variables like gender and age. Thus, too, did Alexander and Hicks' (2015) investigation. They conducted a study to determine if academic achievement in first-year psychology tutorials is predicted by class attendance. They discovered that the outcomes of the assessments and attendance had a strong, favourable association. Additionally, some research has indicated that improved attendance is linked to greater academic performance for students from all backgrounds, especially for kids from lower socioeconomic backgrounds (Epstein & Sheldon, 2002; Ready, 2010). Furthermore, pupils who consistently attend class achieve better exam scores than their counterparts who miss class a lot.

For class attendance to have the most academic value, it is crucial to remember that both students and tutors or facilitators need to participate actively in order for students to complete their academic objectives effectively.

2.2.4 Conducive Learning Environment and Academic Achievement

The concept of school atmosphere is intricate and multifaceted. It has been defined as a school's unwritten culture, standards, expectations, and unwritten personality (Petrienne, 2014). Enough equipment and human resources are available for learning at all levels, which improves the calibre and applicability of the information and skills taught to students (Lumuli, 2009). The term "school learning environment" refers to all elements that make up a school, whether conducive to good teaching and learning. The youngster performs best in the learning environment. These encompass the entirety of the child's upbringing and development, as well as the home, school, church, peer group, and classroom (Akem, 2008). They also consist of structures, furnishings, tools, and educational supplies. In distance education, a conducive learning environment is contingent upon the learners' and instructors' preparedness and preparation. This puts a great deal of responsibility on both tutors and students. Learners must be ready and prepared to participate in the learning process, while tutors prepare for intellectual development and the techniques and skills to use. This is accomplished if the surroundings are favourable and designed to facilitate learning (Khalid, 2008).

Since adult learners are the primary audience for the distance education programme, a conducive learning environment is essential to its success. A supportive learning environment for adult learners may be seen from two angles (Jegede, 2003). Specifically, the setting and interactions for learning. The adult learner's relationship with the facilitator is the learning interaction, whereas the learning environment is where learning occurs. According to Jegede (2003), the course facilitator

must consider the traits of adult learners and let them guide the path of the learning process. That is, for meaningful learning to occur during a class engagement, the facilitator should try to establish a friendly environment in the classroom. The efficient management of the learning environment at the school is just as important to the success of remote learning as the tutors' job performance (Ajao, 2001).

According to Akande (1995), a favourable learning environment has resources accessible to support students' performance. It comprises, among other things, textbooks, audiovisuals, instructional technology hardware and software, classroom size, seating arrangements, table availability, and blackboard. According to Aliade (2008), the classroom is where teachers impart information to their students. The local area around the school also includes vital teaching resources like football fields, libraries, and exam rooms. According to Tsavga (2011), a student's performance and reaction to external events are greatly influenced by their learning environment. The learning environment determines the degree to which a student participates and behaves. Nwangwu (1990) included playgrounds, athletic facilities, classroom furnishings, and school buildings as aspects of the school environment. It also encompasses the school's culture, psychological environment, and aesthetically pleasing surroundings (Maine, 2002).

All activities in the educational setting should be produced, coordinated, informed, and managed by the teaching and learning environment (Bosque & Dore, 1998). Furnishings, including furniture, ventilation, and thermal comfort, are necessary for an optimal learning environment. For the learning environment to be pleasant, a number of elements, including lighting, temperature, and noise level management, must be present (Murugan & Rajoo, 2013). Therefore, the school environment should be free of noise, inadequate lighting, and unpredictable temperatures to promote strong academic achievement. In order to support adult learners, the learning environment

should also be carefully examined. Since some students can have hearing issues, a loud atmosphere is not ideal. According to Jegede (2003), since they play several social roles, most adult learners have many of their thoughts. As a result, noise levels in the classroom should be low. This is because noise will undoubtedly impair their focus and make studying boring. In addition, the space has to be airy to allow for ventilation. The room should be large and well-lit to prevent adult learners' eyes from straining. Ensuring the condition of all tables and chairs is crucial for the learners' benefit during tutorial sessions. It is important to organise seats so facilitators may quickly circulate among students to monitor their behaviour and work.

A student's intelligence does not just determine academic performance. A student's academic success is constantly correlated with the many elements of the learning environment. For instance, West (2005) discovered that appropriate learning settings significantly predicted students' academic success. In their study, McEvoy and Welker (2005) found that changing the learning environment and setting higher expectations for students can boost the efficacy of underachieving schools. This indicates a favourable relationship between student success and the school atmosphere (Brown, 2004; Lehr, 2010). Persaud and Turner (2008) conclude that inadequate ventilation systems and upkeep result in ill health in instructors and pupils, which in turn causes subpar work and greater absence rates. According to Stewart (2008), the best indicator of pupils' academic success is the school's feeling of togetherness. Students succeed more when they are committed to something and experience a feeling of devotion to it. According to Lehr (2010), kids who attend schools with a more pleasant atmosphere also tend to have more favourable attitudes about school and the subjects they study, which results in greater accomplishment. Scholars such as Ajayi and Ogunyemi (1990), Martin et al. (2004), and Mullis et al. (2008) concur that a supportive learning environment significantly influences students' academic performance.

Several studies have also demonstrated the influence of the school atmosphere and learning environment on academic success. For example, Hoy and Hannum (1997) studied middle schools in New Jersey and the link between academic success and the school learning environment. They concluded that student success was correlated with the school learning environment, often known as the school climate, independent of socioeconomic position. The degree of academic performance was considerably affected by a good, supportive, and culturally aware school climate and learning environment, according to Megan's (2002) research on school climate in high-risk urban contexts. He concluded that successful learning occurs in an environment that supports learning. Additionally, Stevens and Lowing (2008) found school atmosphere and student success to be significantly positively correlated. The study's results showed that the influence of the school environment on academic success was greater in communities with higher socioeconomic levels than in schools with lower socioeconomic class populations. Establishing and maintaining a favourable teaching and learning atmosphere is essential, especially in distance education, regardless of whether the classroom is in-person or virtually accessed.

2.2.5 Students' Preparedness and Academic Achievement

Among the several elements affecting academic achievement, the student's contributions to their education are among the most crucial. The contributions and readiness of each student are crucial to the teaching and learning process. It is crucial to remember that, despite the best efforts of educators and parents, children still have much work to do. Every student who arrives unprepared for lectures or class slows down the flow of the learning process. Students have a big say in how well they learn (Nicholas & Sutton, 2013). Students' concentrated learning activities are the most beneficial for their academic success at this period. Therefore, rather than just adding extra student days, researchers recommend paying greater attention to techniques that improve the quality of

this time (Erling, 2007). Students must master time management techniques and use their study time better by participating in relevant learning activities to succeed in higher education (McKenzie et al., 2004; Taylor & Bedford, 2004).

To put it broadly, being prepared entails having the life and intellectual abilities necessary for students to thrive in college. Students may impact their success in a variety of ways, and one of those ways is through their study habits. In this sense, a study habit is when students complete their coursework, read additional resources to find pertinent knowledge, set aside time to complete assignments and participate in tutorials. When students work in groups and are assigned discussion topics, this is a crucial aspect of their preparation. The more intelligent students will assist the lower achievers in boosting their self-esteem and accomplishment, which is the most significant function of this aspect of students' readiness (Boaler, 2008). Being ready for college, in general, is also very important; a student's likelihood of success will be impacted by their ability to handle social, emotional, and intellectual in other classes (Archer, 2011).

When employing new employees, particularly recent graduates, one of the main considerations businesses consider is academic accomplishment. This implies that to meet the demands of their employers and get excellent marks, students must work extremely hard in their studies to prepare themselves for future workplace chances (Zarei, 2008). Acquiring and changing preexisting information, skills, attitudes, and competencies are all part of learning in the classroom. According to Liu (2001), if the pursuit of knowledge is the definition of learning, students must actively engage in this endeavour. As a result, students must be engaged and well-prepared to look for information both within and outside the classroom. The processes through which people use their initiative, with or without assistance from others, to identify their own learning needs, create

learning objectives, select and apply workable solutions, and assess learning results are at the heart of students' preparedness (Boekaerts, 1999; Winne & Perry, 2000).

The desire for self-directed learning is rising due to the flexibility and individualisation that distance education environments provide (Grabinger & Dunlap, 1995). According to Wolfe (2000), learners in distant education programmes are subjected to greater expectations than in traditional learning contexts. In contrast to the conventional system, where students must follow a progression sequence with the aid of teaching materials, distance learners are expected to take responsibility for their education. Students are granted autonomy for their education about the curriculum's quantity, order, and speed (Reeves, 1993). This implies that students handle the course contents independently and that a great deal of weight is placed on the level of preparation they demonstrate. Similarly, students enrolled in remote education need to possess various learning abilities and techniques, such as goal setting, action planning, choosing and evaluating learning strategies, choosing and evaluating resources, time management, and reflective learning (Grabiner & Duntap, 2000).

Bas (2010) asserts that students' behaviours in the classroom often reflect how they process knowledge. Students exhibit a range of classroom behaviours, including active and passive engagement. These behaviours might be taking notes, participating in class, asking and answering questions, or just sitting quietly (Bas, 2010; Mohal, 2011). Liu (2001) classified classroom behaviour into four categories: complete integration, situational engagement, marginal interaction, and silent observation. First, students participate fully in class discussions in the integration group. These pupils are fully aware of what they are allowed to say and what they should not say. Their full engagement in class happens organically and frequently on its own, claims Abidin (2007). The

second group participates in situations where linguistic, emotional, and cognitive differences, among other things, impact pupils.

These elements frequently cause students to participate less and communicate with their peers and tutors less, only occasionally. Students participate less in speaking during lectures and more in listening during the marginal interaction, which results in the third group. These pupils would rather observe and take notes than participate in class discussions. Students who are quiet observers typically steer clear of speaking out in class. They would rather read from other pertinent literature and take notes. According to the many forms of classroom behaviour, students must always participate actively in class by acting as knowledge searchers to be considered active learners. Being actively involved in class includes things like speaking up in class, asking questions, offering comments, and simply responding to queries from the teacher or other students. This measures the student's engagement and wants to learn, eventually leading to better academic performance (Davis, 2009).

Research has indicated that students accomplish higher academically when they put in more time and effort into their coursework. Astin (1993) discovered a favourable correlation between many students' results and the time spent studying. According to Assouline et al. (2006) theory, bright students typically credit their academic diligence for producing high-quality work. To overcome their obstacles, they frequently use constructive self-monitoring and guidance (Carbonaro, 2005). According to Adekeyi (2002), students are primarily socialized to become contributing members of society via their efforts and skills. Marquez (2009) also observed that a student with strong study habits will succeed in his chosen field of work. Accordingly, she said that students need to implement these practices in all their classes to have better Grade Point Averages (GPA).

Stewart (2014) was interested in examining the potential effects of structural (such as the school environment) and individual (such as effort) variables on students' academic success in American research. It was shown that students' academic success strongly correlated with the effort they put into their studies. Academic results were found to be favourably correlated with participation in educationally meaningful activities (Kuh et al., 2008). The study by Handelsman et al. (2005) concentrated on college course student participation. They discovered that involvement impacted both inner desire for learning and external markers like grades through responses to the Student Course Involvement Questionnaire. According to Kayatin (2005), if student participation is valuable in the educational process, it should also improve students' academic performance. Umbach and Wawrynski (2005) discovered that when instructors employed active and collaborative learning strategies and involved students in higher-order cognitive tasks, students reported better levels of engagement and learning. Academic optimism and focus were determined to be reliable indicators of a student's academic success by Akinlana (2012).

Research employing motivational perspectives, including academic intrinsic motivation, achievement motivation, and achievement goals, has also revealed that students who are intrinsically motivated typically exhibit greater levels of intellectual performance (Gottfried & Gottfried, 2004), less academic anxiety, and higher academic achievement (Gottfried et al., 2007). Students' active participation in learning is essential for completion (Hussein, 2010). This implies that students need to take the initiative to look for in-depth information throughout class. Students must think that they can learn and that the material they are studying has value for both them and society as a whole if they are to succeed academically (Gregory & Chapman, 2007).

2.8 Current status of institutional support services in the Distance Learning context

According to national and international educational organisations, institutional support services are one of the cornerstones of remote education (Babu, cited in Valarmathi et al., 2024). These offerings include anything that might facilitate and improve students' learning and knowledge acquisition. This kind of assistance entails setting up an environment that is favourable for learning for the pupils. It offers kids a sense of self-direction and management and a sense of community that prevents them from feeling alone. Additionally, it lessens the sense of losing control, boosts motivation, and aids in students' course completion (Paniagua & Simpson, 2018). For students to succeed in their academic journey, these services ought to fulfil the demands of most of them and attend to academic and non-academic needs (Munyaradzi & Addae, 2019). Academic support attends to students' emotional and social needs that are closely associated with their educational pursuits. Since emotional and social requirements influence academic achievement, non-academic support for students should concentrate on assisting them in addressing these needs, even if unrelated to their learning activities. Support services must be offered from the moment a student enrols until they graduate or leave the school. Finally, it has been discovered that subpar academic achievement and success might result from a lack of early access to effective and efficient institutional support services (Munyaradzi & Addae, 2019). Due to the fact that these services centre around a variety of educational and associated activities, they are crucial components of any system, including distance learning. As a result, in addition to being able to adapt to the demands of students, these services have always to be open and available so that they may be routinely inspected.

Support services employ various techniques to assist students in their learning (Monyamane & Monyamane-LimkoKwing, 2020). In order to allow students to learn without limitations,

Monyamane and Monyamane-LimkoKwing (2020) say that to provide them with an unrestricted learning experience, a range of institutional support services platforms should be linked to them. These platforms include interactive tutorials, workshops, teleconferencing or videoconferencing, interactive and specially designed materials, discussion forums, and tutor-graded assignments. Students can get feedback from their lecturers through this interaction. They continue to influence their education and remain linked to the school in this way. The goals and strategies are explained more clearly in this interaction when they follow Gagne's guidelines, which include drawing the learner's attention, outlining the objective, stimulating prior knowledge, presenting the material to be learned, offering guidance for learning, eliciting performance, giving feedback, evaluating performance, and promoting retention and transfer (Picciano, 2017). Institutional support services are grounded in the social constructivist learning theories upon which collaborative learning is built, according to Mutambo, Aguti, and Winterbottom (2018). As students collaborate in pairs or small groups to debate newly learned concepts and resolve problems, this approach presupposes that knowledge is socially created through peer tutoring. Deeper learning and the growth of higher-order thinking result from these dynamic, social, contextual, captivating, and student-led learning opportunities. Additionally, Moore's idea of transactional distance emphasises mediation through communication between the student's space and the institution's structure. Thus, the increasingly innovative platforms of information and communication technology (ICT), including chat rooms, discussion forums, podcasts, video clips, blogs, and wikis, may improve communication between students and tutors and amongst themselves.

According to Netanda et al., (2017), support services aim to help students manage their academic expectations and needs, help them with their academic prospects, and stick by them throughout their academic journey until graduation. Various services that support course materials and other

relevant learning resources for all students make up institutional support services (Arifin, 2018; Dampson et al., 2019). According to Mpofu (2016), institutional support services are essential to distance learning programmes. In order to support students in their academic success, these programmes also consider systemic, emotive, and cognitive variables. According to Mpofu (2016), services comprise a course and design dimension, pedagogical support, and student support services. Effective institutional support systems must consider location, scale, and technological infrastructure. Given the importance of technology advancements in our daily lives, the kinds of technologies available to students are vital. Specifically, social media networks are useful for delivering institutional support services (Arifin, 2018).

All interactive educational programmes and services created to assist and promote student learning are included in the category of institutional support services. A variety of human and non-human activities, as well as the tools required to direct and support learning and knowledge acquisition, are also included in supportive services. They are made up of educational tools designed to fulfil students' requirements for their coursework and associated areas (Rangara, 2015). These services can occasionally include teaching and tutoring, counselling, advising, and all associated services in addition to student service administrative tasks, including registration and admission (Brindley et al., 2008). Ultimately, student needs should be the primary focus of support services.

Effective institutional support services should be offered in the pre-matriculation stage when students' requirements are identified. Providers might use the knowledge to better design services that cater to known distance learners' demands. In addition, distance learning providers need to know about the academic background of prospective students, their dedication to becoming self-sufficient in getting help from necessary caregivers, their availability of time, and their technological know-how. With this data, providers might better assess remote learners' emotional

and intellectual preparedness for the course of study (Kamau, 2012). It is also vital to remember that the distance separating students and teachers makes these services essential.

Web-based technologies have taken centre stage in the distance learning system with the introduction of the Internet and associated networks like the World Wide Web. A worldwide platform for teaching courses that can be dynamically updated in ways never before imaginable is offered by the Web. There is no time or location restriction on the vast array of materials available to each learner. Fears that the global culture of industrialised nations may challenge local culture also contribute to the cross-cultural aspect of the Internet, making it problematic for law and public scrutiny. Although higher education is the main setting in which the Internet and the World Wide Web are utilised for distance learning, schools are also starting to adopt this practice (Ambeth, 2020).

The dynamics of distant learning have shifted as a result of institutional support services. The educational system has changed from teacher-centred to student-centred due to the greater focus on pupils. Because of this shift, the duties and responsibilities of teachers have also been reevaluated, and all other stakeholders are now proactive rather than reactive. Thus, this modification has also impacted the type of support provided in the educational setting. To facilitate the transfer of learning from one context to another, it is crucial to consider the growing complexity and scale of distance learning, particularly in the modern world where technology is playing a bigger role and influencing students' learning behaviours and support. Students may now instantaneously interact with their classmates, and the resources and support networks are accessible via the Internet (Rangara, 2015).

Without comprehending the meaning of effectiveness and efficiency and looking at the strategies employed to increase student usage of these services, evaluating the efficacy and efficiency of

institutional support services would not be possible. According to Huddleston (2002), a mechanism is a designed method of accomplishing something, whereas effectiveness and efficiency result from the appropriate job and action. Since they act as a conduit between the institution and the students, efficient institutional support services are critical to the success of any distance learning programme. By having a more robust ICT foundation and a more approachable phone system to address students' concerns, these services need to be available to all students, regardless of where they are in the world (Mirja, 2014).

It is necessary to have facts rather than just conjecture when addressing the complicated and confusing topic of the efficacy and efficiency of student support services in ODL. Setting things in perspective helps everyone have a clear, mutual knowledge of the problem. It may be claimed that effective and efficient institutional support mechanisms are related to the provision of relevant, appropriate, and adequate services in an appropriate manner based on the definitions of "mechanism," "effectiveness," and "efficiency." Therefore, it is critical to determine how these services are provided and whether any specific expertise is needed to provide them. Evaluating whether services are successful is also crucial. Lastly, it is critical to ascertain whether student progress, accomplishment, and attainment are directly correlated with the availability of these programmes. Support is a synonym for inspiration, support, help, and encouragement. Giving students real-world assignments and activities to participate in learning is crucial to promoting their learning. Group and project work must be assigned to students in order to promote active and engaged collaborative learning. The following strategies are proposed by Hughes and Carter (2012) and Lynch (2002) to assist pupils in achieving academic success:

(i) Arrange specific virtual gatherings to converse and exchange details on the course or courses.

(ii) Provide practical exercises to promote active learning, (iii) Offer kind criticism, (iv) Allow pupils to make their own decisions, (v) Guarantee a timely reply to emails, (vi) Responding promptly to emails is even more crucial than assignment comments (vii) Offer role models. Modelling may be a very effective teaching strategy when students witness a new skill being used.

When possible, be forgiving. Think about a group of variables that impact student learning and display a feeling of accountability. Responsibility and indulgence are not mutually incompatible despite what can appear at times, use tried-and-true tactics. Finding current best practices based on cutting-edge, research-based, inclusive teaching tactics will help achieve this. These include being watchful and proactive in reaching out to pupils to determine which ones are having difficulty learning and move quickly to address the issue, reevaluate grading and consider various approaches based on the kind and level of assistance you offer pupils, helping kids develop self-management by giving them the tools they need to learn more effectively and efficiently and adjust a few of the preceding procedures to facilitate students' acquisition and retention of new abilities and reinforce those they have already acquired.

There is a dearth of research on the abilities required to provide institutional support services in distance learning, even though these services have been reported in the field. In order to provide institutional support services, the researchers think that interpersonal skills, problem-solving, communication, empathy, organisation, and time management are essential. Furthermore, aligning the different support systems with the capabilities normally needed to deliver that help is critical. The institutional support services offered by Distance Learning degree programmes are extensive (Nsamba & Makoe, 2017). These services include registration, counselling, academic learning support, guidance, tutoring, learning advice, assignment feedback, interaction with teaching and

administrative staff, career services, study centres, and financial support when required. They also stress how important it is for pupils to have access to these resources to succeed academically.

As the subject has developed from 1989 to now, the literature demonstrates that several support services vary from one institution to another (Kumtepe et al., 2019). There is no agreed-upon definition of what makes for good institutional support services, as seen by the diversity of institutional support services provided by various institutions at various times.

Shikulo and Lekhetho (2020) state that higher education institutions in this field must continue to succeed in the marketplace and offer high-quality instruction to withstand growing competition. These institutions can only accomplish these goals by offering efficient support services. This will keep kids enrolled in the school. Providing high-quality education fosters trust, loyalty, and student pleasure. Therefore, to draw in new students, hold on to existing ones, raise employability and retention rates, and enhance overall performance, higher education institutions should try to offer top-notch institutional support services. Students' learning experiences, academic achievements, and success will all be improved by efficient institutional support services that cater to their various and specific requirements. This will help them become self-directed, lifelong learners.

Numerous factors influence the success of these services, and different institutions have different ideas about effectiveness in this context. It is acknowledged that an institution's structure and operations, together with its students' academic and non-academic demands, are crucial to its efficacy. While some services are designed with the institution as a whole in mind, others are customised to meet the specific needs and expectations of the student body. UNESCO, however, emphasises the following shared roles of institutional support services (Ciobanu, 2013): Regarding the connection with the educational establishment, these services ought to:

Ensure that leadership makes responsible decisions; Assess students' social experiences to enhance programme success; Offer support and clarification of the institution's values, mission, and policies. This includes creating policies and programmes that support campus safety, Upholding the institution's values through the creation and enforcement of student standards, encouraging student participation in institutional governance, providing essential services like housing, health care, financial aid, counselling, and admissions that are in line with the institution's mission and goals; Create and preserve productive working connections with the neighbourhood. In the context of the relationship with students, these services should aid in the transition to university life, Support students in exploring and clarifying their values, Foster the growth of friendships and a sense of community on campus, Help students pursue financial aid for further education; Offer opportunities to expand students' cultural and artistic horizons; Teach students how to resolve conflicts in both personal and group settings; Provide special programmes and services for students with learning difficulties; Contribute to the understanding and appreciation of ethnic differences, whether racial or otherwise; Offer opportunities for leadership development; Establish initiatives that encourage healthy lifestyles and lower misbehaviour; Provide opportunities for recreation and leisure; and Offer career assistance and counselling, assist in defining career objectives, and investigate possibilities for additional education or employment.

These institutional support services' purposes also show that there is not one standard for what constitutes a successful service. The success of students and the failure rates of institutions determine how successful these services are. Consequently, the institutional support services that have a considerable and beneficial impact on increasing student success rates are the most successful. However, other elements also contribute to the success of the institution. The most crucial thing to remember is that all services should, at minimum, improve and ease

communication between students and their educational institutions. These organisations should support students in achieving success in their academic careers and post-university life.

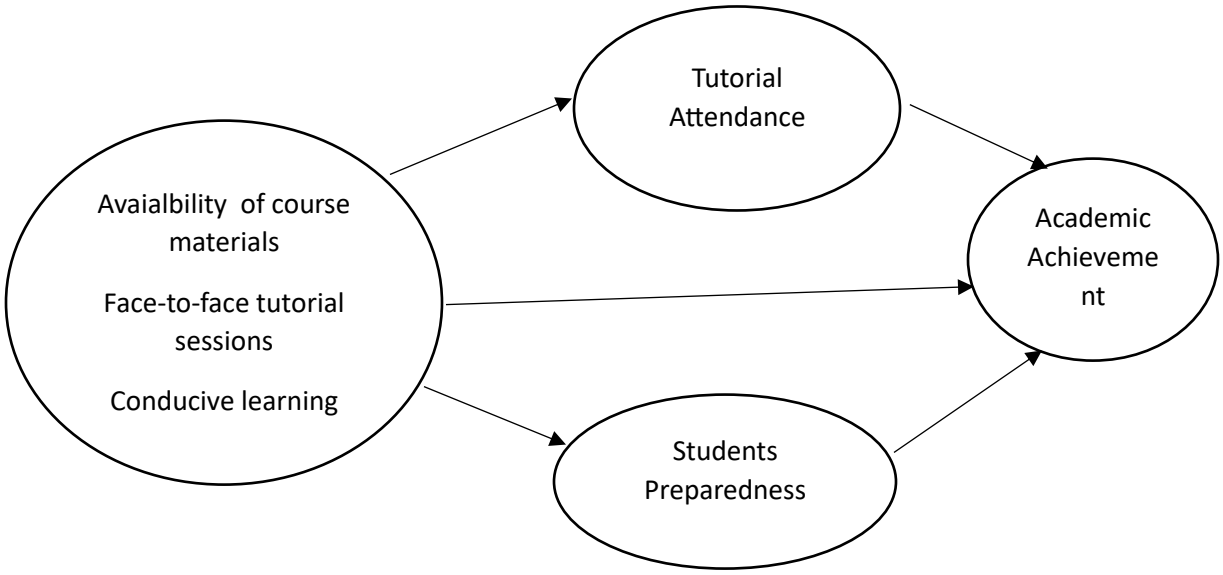
It is also important to remember that the lack of a clear policy guiding funding and activities for remote learning usually compromises the effectiveness and efficiency of institutional support services. The lack of a clear policy harms the smooth cooperation and communication between instructors, students, and the organisation. However, lacking funding makes it more challenging for the company to upgrade, expand, and provide quality services. This is exemplified by inadequate study resources, ICT infrastructure, and inadequately trained support staff who cannot assist underprivileged pupils. Mutambo et al. (2018) state that these components also influence the decentralisation of institutional support services. According to Munyaradzi and Addae (2019), forming partnerships with other academic institutions may enable efficient institutional support services, encourage the exchange of best practices, and pinpoint opportunities for enhancing current services.

The quality of institutional support services is readily apparent in Europe, Asia, and America. It is argued that, despite the use of cutting-edge educational technology, institutions offering distance learning still have lower success and pass rates than traditional educational institutions, even though the programme is satisfactory and has been approved by numerous national educational and decision-making bodies. It should be acknowledged that the technology used in ODL continues to promote more flexible, interactive, seamless, adaptive, and personalised learning environments, even as proactive and innovative measures to ensure the effectiveness and efficiency of administrative and face-to-face academic support are crucial (Simpson, 2012). According to Shikulo (2018), the efficacy and calibre of these services are critical for distance learning environments since students require ongoing assistance to complete their coursework,

adjust to the academic setting, and cope with life at home. Nevertheless, services' efficacy and efficiency are hampered by several other issues, including a lack of technology resources, understaffed regional centres, a lack of services on weekends and holidays, and a lack of cooperation between students and their instructors (Shikulo, 2018).

2.9 Conceptual Framework

This study looks at the factors that affect how much institutional support services contribute to the academic success of distance learners. Figure 1 illustrates these factors.



Source: Author's design (2023)

Figure 1: Conceptual framework illustrating the relationships between independent, intervening, and dependent variables that explain how institutional support services affect the academic performance of University for Development Studies distant learning students**.**

According to the conceptual framework, the creation of course materials, Face-to-face tutorials, and a supportive learning environment are the predictive factors. Students' readiness and attendance during tutorials are the mediating variables. As stated in the conceptual framework, the

academic success of students enrolled in distant education programmes is the criteria variable. The model argues that tutorial attendance will increase when in-person instruction, the creation of course materials, and a supportive learning environment are all present and available for the students. Therefore, students will become more prepared to get good scores.

2.10 Summary

The study's themes were covered in this chapter. The review of empirical research focused on the connections between academic accomplishment and face-to-face interactions, academic achievement and course modules, academic achievement and tutorial attendance, academic achievement and a supportive learning environment, and academic achievement and student readiness. This study was anchored in transactional distance, autonomy-independent study, and self-determination theories. The links between the independent, mediating, and dependent variables were shown in the conceptual framework.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the study's methodology. It describes the research approach, design, sampling techniques, and data collection procedures and tools. Additionally, the instrument's validity and reliability are explained and justified. Furthermore, how the data were analysed is explained and justified. The ethical protocols adhered to are also explained.

3.1 Research Approach and Design

This study adopted the quantitative approach. The design is a descriptive cross-sectional survey. The method of gathering information to address queries about the present condition of the research subjects is known as a descriptive design. According to Kumar (2014), the purpose of descriptive research is to characterise the features of a certain occurrence and entails gathering data without changing any factors. Descriptive research aims to give a legitimate and accurate picture of the variables or characteristics pertinent to the research topic. Descriptive studies illustrate the variables by answering who, what, and how inquiries (Patall et al., 2008). In addition to facilitating the generalisation of research findings, descriptive survey research highlights patterns in attitudes and behaviours (Creswell, 2012). This study's design was suitable as it will increase the quantity of high-quality data obtained.

However, descriptive survey design has several challenges. One is that it lacks the necessary depth to answer questions and cannot demonstrate a cause-and-effect link (Babbie, 2010).

Despite its acknowledged drawbacks, the descriptive survey was employed, as it elicits quality replies from a broad spectrum of respondents. In addition, it gives a meaningful picture of what happened and aims to explain people's beliefs and actions based on information available at a certain moment in time. Once more, it may be utilised with more assurance in relation to a specific moment. The researcher also examined the connection between the study's predictor factors and the academic success of Distance Learning Students at the University for Development Studies.

3.2 Population

The study's targeted population were 8,948 students from the University for Development Studies' Institute of Distance and Continuous Learning. According to the IDCL's Students Handbook (2016–2017), the 20 study centres spread throughout Ghana's Seven Regions comprised the research's target population. The study population included around 950 students in the second year at the Yendi, Bimbilla, and Tamale study centres (IDCL Students Handbook, 2022–2023). The accessible population for the B.Ed. Basic Education, B.Ed. Early Childhood Care Education and B.Ed. General Agriculture programmes were selected from second-year students who had been accepted into the programme and had lived in the university's study centres for more than a year. It was also assumed that these students could offer helpful information and ensure maximum cooperation and commitment.

3.2.1 Sample and Sampling Procedures

The study included 342 second-year distance education students from the chosen study centres as its sample. According to Saunders, Lewis, and Thornhill (2012), a sample of five to thirty per cent of the available population should be chosen for research.

Three research centres in the central area were chosen using the purposive sample technique: Yendi, Bimbilla, and Tamale. Purposive sampling involves selecting the instances for the sample by hand based on the researcher's assessment of the cases' typicality or level of expertise in the topics being studied (Leedy & Ormrod, 2005). The ability to pick information-rich examples for an in-depth examination of the main topics under study gives purposive sampling its potency.

The stratified sampling approach was applied to divide the student body into male and female strata. According to Campbell et al. (2020), stratified sampling is the best option because the means will likely be around the population mean. When individuals of the same stratum are selected to be as comparable as feasible about the characteristics of interest, stratified sampling yields results with higher precision.

Ultimately, students from each stratum were chosen using a straightforward random selection procedure. Specifically, the lottery approach was employed. Each student's name stated in the sample frame was written by the researcher on a sheet of paper, which was then combined with other papers in a container and taken out one page at a time without being examined. After writing down each student's name on the paper, the researcher threw it back into the container. The researcher disregarded previously selected names until the necessary number of responders was chosen, and the process was repeated. The three courses for the study— Basic Education, Early Childhood Care Education and General Agriculture- were chosen using the same procedure. The distribution is presented in Table 1.

Table 1: Sample Distribution of Respondents from the Three Study Centres in the Northern Region

Name of Centre	Freq	Males Present	Freq.	Females Present
Yendi Centre	50	27.0	50	31.8
Bimbilla Centre	55	29.7	50	31.8
Tamale Centre	80	43.2	57	36.3
Total	185		157	

Source: Author's construct, 2023

3.3 Instrument

The structured, standardised quiz questionnaire items for the three centres that served as a stand-in for academic success were the instruments for data collecting that directed the study. The research questions from linked literature served as the foundation for the questionnaire's development. As a result, questions using a Likert scale were employed, asking students to answer a set of predetermined assertions. The questionnaire avoided ambiguity and technical jargon by being brief, straightforward, and uncomplicated. Six components made up the questionnaire. Two (2) questions comprised Section "A," which was used to gather respondents' background data. Eight (8) items in Section "B" were created using a 4-point Likert scale to collect data regarding in-person instructional sessions. Ten (10) items in Section "C" were utilised to gather data on learning resources or course modules. A total of seven (7) items in Section "D" were utilised to gather data on tutorial attendance. Five (5) questions comprised Section "E," which was designed

to gather data about a supportive learning environment. Six (6) questions comprised Section "F," which was meant to gather data on how prepared the students were.

The quiz contained twenty (20) multiple-choice questions covering general agriculture, early childhood care education, and basic education. These courses were chosen as they are identical ones taken in each of the study centres chosen. Respondents had thirty (30) minutes to finish the exam items—the allotted time for quizzes in the University for Development Studies. The exam had a score of more than 100. The researcher could determine how well the respondents did in these three courses from the scores. The highest possible grades were 90% for General Agriculture, 86% for Early Childhood Care Education, and 80% for Basic Education.

3.4 Validity

The researcher's supervisor and research methods specialists evaluated the tools used for the data collection to assess the instruments' face and content validity. Nonetheless, all adjustments and revisions made by the supervisors and specialists had an impact, and any research statements or items had to be rebuilt considering the supervisors' positive feedback. This enabled the researcher to create tools that produced reliable data.

3.5 Reliability

The consistency of the answers on the pilot questionnaire was evaluated using Cronbach's alpha to gauge the research instrument's dependability. When a survey questionnaire has several Likert items that constitute a scale, and you want to know if the scale is dependable, you most frequently use Cronbach alpha. The test items underwent a reliability test, and the results indicate a Cronbach's alpha of 0.87, deemed high enough for the instrument to be utilised in the research.

3.6 Pilot Testing

A pilot test was conducted before the real data collection at the Bagabaga College of Education Learning Centre, University of Education, Winneba. This location was not included in the selection of study centres used for this investigation. Questionnaires were distributed to twenty (20) second-year distance education students from the University of Education, Winneba's Bagabaga College of Education learning centre. The pilot study's objectives were to ascertain the instrument's dependability, degree of difficulty, clarity of the questions, and capacity to differentiate between outcomes. The researcher administered the instrument in person and assigned scores. This was done to enable the questionnaire's last adjustments in preparation for any potential fieldwork start date.

3.7 Data Collection Procedure

The Department of Educational Management and Policy Studies, UDS, provided the researcher with an introduction letter, which she then delivered to the course coordinators at the chosen study centres in the Northern Region. In order to obtain authorisation to use the quiz questions in the chosen courses, the introduction letter was also sent to the Division of Academic Affairs at the Institute of Distance and Continuous Learning, University for Development Studies. Before administering the questionnaire, the course organisers at each research centre verbally gave their consent. Three study centre coordinators and tutors assisted with the administration and instrument collecting. They received instructions on the protocols included in distributing and gathering the surveys.

Since the dates and times for taking the tests at each study centre are the same, the quiz items adapted from the University for Development Studies' Institute of Distance and Continuous

Learning were given first. The chosen students' quiz papers were coded, and those students were recognised to respond to the survey when the quiz papers arrived. Since the student registration numbers were used as a reference, identification was simple. Additionally, the surveys were distributed four (4) weeks later. Fifteen (15) minutes were allotted to the researcher to administer the questionnaire. All research centres agreed upon this time, facilitating efficient data collection.

3.8 Data Processing and Analysis

The study used SPSS version 24 to do the analysis. After data was collected, it was inspected to ensure that only relevant and accurate data was retained for analysis. The study employed descriptive and inferential statistics in the analysis of data. The descriptive statistics included frequencies, means and standard deviations. Inferential statistical techniques were mainly used for regression analysis. This programme is the most widely used package for data analysis, and it was chosen for its dependability, accuracy, and user-friendly interface. The mean and standard deviation of every item in the data obtained from the respondents were calculated, along with other inferential statistics, as part of a descriptive statistical analysis. The researcher's return rate was 96%.

The Pearson Product Moment Correlation Coefficient was used to provide answers to research queries. According to Taraldsen (2020), in statistics, the Pearson correlation coefficient (PCC) is a correlation coefficient that measures linear correlation between two sets of data. It is the ratio between the covariance of two variables and the product of their standard deviations; thus, it is essentially a normalised measurement of the covariance, such that the result always has a value between −1 and 1. As with covariance itself, the measure can only reflect a linear correlation of variables and ignores many other types of relationships or correlations. As a simple example, one would expect the age and height of a sample of children from a primary school to have a Pearson

correlation coefficient significantly greater than 0 but less than 1 (as 1 would represent an unrealistically perfect correlation). If you wish to examine how strongly two continuous variables are related, you utilise the Pearson Product Moment Correlation. This indicates the intensity of the link (weak, moderate, or strong) and its direction (positive or negative).

Once again, several regression techniques were used to assess the study's premise. The fact that every variable was assessed using a Likert scale led to the selection of this statistical technique. The multiple regression approach is a multivariate methodology used to evaluate each variable's relative contribution to the criterion variable and test the predictive ability of a group of predictor variables. The dependent variable was regressed on multiple regression analysis's independent and intervening factors. Because there were more than two predictor variables in the study, the researcher chose to adopt this method over the others. Furthermore, the individual predictor variables' contribution is also required.

3.9. Ethical Considerations

The Institutional Review Board of the University for Development Studies approved the current study's use of human subjects in research protection. This suggests that the researcher must honour the respondents' needs, rights, values, and preferences (Creswell et al., 2023). Before contacting the students, permission was obtained from the organisers of the study centres. Before completing the questionnaire, each respondent was allowed to provide informed permission, and the researcher also went over how the study would ensure their anonymity. A name was never requested throughout the study, and the researcher gathered the completed surveys immediately.

3.10 Summary

The study techniques were covered in this chapter. These covered the population, sample and sampling methods, tools, validity and reliability, data gathering process, data processing, and ethical issues in study design.

CHAPTER FOUR

FINDINGS, RESULTS AND DISCUSSION

4.0 Introduction

The findings from the analysis of the information gathered from the respondents are shown in this chapter. Three components make up this chapter: the discussion, the primary data results, and the demographic data. The respondents' background, the independent factors, the mediating variables, and the dependent variable are all covered. The results interpretation and discussion have also been aided by including tables with frequencies, percentages, mean, and standard deviations.

4.1 Demographic Data

The first demographic element on the questionnaire meant to determine the overall number of respondents for the study was the respondents' gender. Table 2 displays the respondents' gender breakdown.

Table 2–Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	185	54.1
Female	157	45.9
Total	342	100

Source: Field Survey, 2023

Table 2 reveals that out of the 342 respondents, 185 (54.1%) were male, and 157 (45.9%) were female. Another interesting demographic element was the respondents' age range. Table 3 shows the distribution of respondents by age range.

Table 3: Distribution of Respondents by Age-range

Age	Frequency	Percentage (%)
20 – 24 years	144	42.1
25 – 29 years	161	47.1
30 – 39 years	31	9.0
40 years Above	6	1.8
Total	342	100

Source: Field Survey, 2023

Table 3 shows that most of the respondents were under 30 years old. Of the 342 respondents, 144 (42.1%) and 161 (47.1%) were in the 20- to 29-year age range, respectively. This indicates that the majority of students were 20 to 34.

4.2 Section 2: Analysis of the Research Questions

This study was also interested in how modules or course materials affected students' learning, especially in distant learning. Ten distinct items were employed to obtain the respondents' opinions on this topic. A 4-point Likert scale was also used to gauge this. Table 4 shows the respondents' distribution about how much the course modules link to their academic success.

Table 4: Course Modules and Students' Academic Achievement

Statement	Freq.	Mean	Standard Deviation
The modules clearly stated the objectives.	342	3.72	.47
Objectives stated in the modules match the information covered.	342	3.67	.54
The modules contained relevant information for my studies.	342	3.55	.62
Stimulates learners to think critically	342	3.44	.82
Summaries were provided to aid learning.	342	3.68	.50

Information was presented in a simple way.	342	3.75	.47
The modules were distributed on time.	342	3.65	.57
Diagrams in the modules were sufficient.	342	3.65	.53
Using course modules is a waste of time and slows learning.	342	2.96	1.03
Modules enhance students' understanding and acquisition of factual information	342	3.37	.80
Total	342		

Source: Field Survey, 2023

According to Table 4, the means of the different items reveal that course modules significantly impact students' accomplishments. The majority of respondents firmly concur that the knowledge presented, and the aims specified in the modules fit. They also concur that the modules encouraged critical thinking and included pertinent information. The standard deviation numbers, which do not demonstrate significant variety in the students' observations, further confirm this. This attests to the respondent's substantial success and usage of the course modules.

Equally important was the role of in-person interactions in helping students succeed in distance learning. Tutors' time spent helping students with their studies was used to quantify this variable. A 4-point Likert scale was employed to collect data on eight distinct items. A summary of the student's responses to those items can be seen in Table 5.

Table 5: Face-to-face Contact Sessions and Students' Academic Achievement

Statement	Freq.	Mean	Standard Deviation
Tutor praises students for good ideas or useful contributions.	342	3.72	0.47
Tutor welcomes imagination, creativity and new ideas.	342	3.67	0.05
Tutor stimulates students to think independently.	342	3.55	0.62
Tutor does not interestingly present ideas.	342	3.44	0.82

Tutor manages classroom discussions so that they serve as a useful part of the learning process.	342	3.68	0.50
Tutor shows enthusiasm to teach, and treats students with utmost respect and encouragement.	342	3.75	0.47
Tutor acts as a member of the group rather than an autocratic leader.	342	3.65	0.57
Tutor communicates to learners the need to pay more attention	342	3.65	0.53
Total	342		

Source: Field Survey, 2023

The means of the different elements in Table 5 suggest that tutors significantly impact students' distant learning experiences. The standard deviation magnitudes further support this. The majority of respondents concur that tutors treat students with the highest respect and encouragement and have a passion for teaching. All of the respondents concur that tutors encourage pupils to think for themselves. Aside from that, they both firmly believe that their tutors recognize their pupils' excellent ideas and valuable contributions.

The study also examined the relationship between students' success and tutorial attendance. Thus, a collection of objects was created to gather information about the topic. A 4-point Likert scale was used to measure each of the seven items. Table 6 displays the outcome.

Table 6: Tutorial Attendance and Students' Academic Achievement

Statement	Freq.	Mean	Standard Deviation
I get better results when I attend lectures.	342	3.51	0.73
Marks are awarded for lecture attendance.	342	3.33	0.93
Useful tips about quizzes and exams are given in class.	342	3.25	0.85
Tutorial attendance is an important predictor of success.	342	3.44	0.70
I can get through the subject without going to tutorials.	342	2.65	1.00

Attending tutorials strengthened my network of friends.	342	3.30	0.74
Tutors help me to understand course materials better when I attend lectures	342	3.41	0.78
Total	342		

Source: Field Survey, 2023

In Table 6, the means for the different items show that tutorial attendance played a reasonably substantial role. The different standard deviation statistics, which demonstrate little differences in the respondents' observations, support this. With a higher mean, students firmly believe that tutorial attendance significantly predicts academic achievement. However, they concur that in-class instruction provides helpful advice for quizzes and semester exams. This suggests that a student's learning ability depends on attending lectures.

Since the distance education programme comprises adult learners, a conducive learning environment is essential to its success; for this reason, it is of special importance. Five questions were therefore created to allow respondents to express their opinions about the immediate setting in which they attend lectures. A 4-point Likert scale was used to measure this characteristic. Table 7 provides a thorough synopsis of the respondents' evaluation of their learning environment.

Table 7: Conducive Learning Environment and Students' Academic Achievement

Statement	Freq.	Mean	Standard Deviation
Seats in my lecture room are arranged in the traditional lecture format.	342	3.26	0.78
My classroom environment encourages cultural diversity.	342	3.05	0.81
Attractive school buildings and classrooms facilitate better performance	342	3.14	0.81
Adequate air ventilation during lessons might improve performance	342	3.28	0.75
Poor ventilation makes the lesson less interesting and boring	342	3.18	0.90
Total	342		

Source: Field Survey, 2023

The majority of students, as indicated in Table 7, feel that their facilities and learning environment were suitable and practical. The different standard deviation values, which demonstrate little difference in the students' observations, corroborate this. The respondents overwhelmingly concur that fostering cultural diversity is encouraged in their classroom. They both concur that well-designed classrooms and school structures promote improved performance. Conversely, pupils resoundingly concur that inadequate ventilation detracts from the engaging and dull.

The researcher was also interested in the students' preparation. A carefully crafted set of objects was used to collect data on this variable. Likert scales with four points were used to rate the six planned items. Table 8 displays the outcome.

Table 8 Students' Preparedness and Academic Achievement

Statement	Freq.	Mean	Standard Deviation
I work hard to do my best in school.	342	3.26	0.78
I study when I like	342	3.05	0.81
I copy the assignment of friends	342	3.14	0.81
I want good grades, so I work hard	342	3.28	0.75
When I run into difficult content, I keep trying because I know I will eventually get it	342	3.18	0.90
I have high expectations for my learning	342	3.56	0.73
Total	342		

Source: Field Survey, 2023

The averages of the several elements in Table 8 show that students made comparatively high preparations for their academic endeavours. The different standard deviation values, which demonstrate little difference in the observations made by the students, support this. Most respondents put much effort into consistently doing their best in the classroom. Aside from that, they frequently have high standards for what they can learn. Conversely, a small percentage of respondents occasionally duplicate their friends' assignments.

For the study, measuring students' academic progress was also crucial. The Institute of Distance and Continuous Learning, University for Development Studies, used the results of a general agricultural quiz, early childhood care education, and basic educational assessments to gauge the student's academic progress (Second Term Mid-term quiz, 2023 at Tamale, Yendi and Bimbilla respectively). The quiz's items were carefully chosen to satisfy the test-building standards and the goals of the chosen courses. The subjects they had previously been taught were included in the

exam materials. There were two multiple-choice questions on each assessment. A 4-point Likert scale was used to calculate the quiz results. Table 9 displays all of the findings.

Table 9: Academic Achievement

Statement	Freq.	Mean	Standard Deviation
General Agriculture	342	3.27	0.81
Early Childhood Care Education	342	3.27	0.81
Basi Education	342	3.20	0.83
Total	342		

Source: Field Survey, 2023

Table 9 summarises students' performance in general agriculture, early childhood care education, and basic education. According to the data, the majority of respondents received high ratings in each of the three courses, which indicates that they fared extremely well in general agriculture, early childhood care education, and basic education.

4.3 Discussion of Findings

Attempts have been made to address the several research questions that have guided the study in this subsection. The results were discussed and connected to the pertinent literature examined.

4.3.1 Research Question One

How does the availability of course materials relate to the academic achievement of distance education students?

Printed materials and modules continue to be the most important means of dispensing instructions to thousands of learners remotely in developed nations with open universities, highly developed mass communication media, and revolutionary changes in their educational systems. This study

investigated the relationship between course module development and students' academic performance in general agriculture, early childhood care education, and basic education. Ten different items were intended to measure this variable. The Pearson Product Moment Correlation test investigated the relationship between course contents and students' academic performance.

Table 10-Course modules and students' achievement in basic education, early childhood care education and general agriculture

		Perf. (Psy.)	Pref. (Maths. II)	Perf. (Eng. II)
Course modules	Pearson Correlation	0.52**	0.51**	0.57**
	Sig. (2-tailed)	0.00	0.00	0.00
	N	342	342	342

Source: Field Survey 2023 (Significant p<0.05)

Table 10 shows the correlation between course materials and students' performance in general agriculture, early childhood care education, and basic education.

Partial correlation was used to explore the relationship between perceived control of internal states (as measured by the PCOISS) and perceived stress (measured by the Perceived Stress Scale), while controlling for scores on the Marlowe-Crowne Social Desirability Scale. Preliminary analyses were performed to ensure no violation of normality, linearity and homoscedasticity assumptions. There was a strong, negative, partial correlation between perceived control of internal states and perceived stress, controlling for social desirability with high perceived control being associated with lower levels of perceived stress. An inspection of the zero-order correlation (r = –.58) suggested that controlling for socially desirable responses had very little effect on the strength of the relationship between these two variables.

The basic education, early childhood care, and general agriculture fields yielded the following Pearson bivariate correlation coefficients: r = 0.527**, r = 0.514**, and r = 0.576**. With a significance level of p-value = 0.000, which is lower than the alpha value of 0.05, the coefficients are positive. The results suggest a substantial relationship between course modules and students' academic success in general agriculture, early childhood care education, and basic education. The research results align with the findings of (Momoh et al., 2024), who found that students performed better when given access to adequate and makeshift resources in their independent investigations. The results of this investigation support the opinions of Abdo and Semela cited in Julia et al. (2022). The study clarified that educational institutions that struggle with issues like limited resources for buildings and training materials typically see a decline in the calibre of graduates they generate. Parallel to this, Omotosho et al. (2015) discovered a noteworthy distinction between pupils taught using filmstrips and those who did not. In a related study, Isola (2010) claimed that material resources greatly impacted pupils' academic performance. It aids pupils in understanding without omitting important details. This allows learners' attention may be captured and maintained through instructional materials.

According to Abass et al. (2012), instructional packages such as printed materials, specimens, and models greatly impact students' academic performance. Likoko et al. (2013) conducted a comparable study to examine the influence of educational resources on academic performance. They concluded that there is a positive correlation between learning resources and academic accomplishment. This investigation's results support the perspective Abdu-Raheem (2014) expressed. The study correlated students' academic success and good course materials. This assumes that materials created in improved forms encourage improved conceptual comprehension and internalisation. It makes certain pupils more comfortable understanding fundamental ideas and

facts. The claim that enabling instructors to improvise teaching aids is a good way to gauge students' complete engagement in the class and allows for inquiry, problem-solving, debate, and clarification of concepts between the teacher and students supports this. In another way, creating course materials may aid staff members' continued development of expertise and increase their comprehension of the traits. Offering a course module is an additional benefit for higher education institutions in maintaining their remote learning programme. As a result, materials created by the school itself can improve its standing by showcasing its dedication to producing content, especially for its students. It is important because resources created on campus may be updated or modified as required, providing students with more freedom to create engaging learning experiences.

4.3.2 Research Question Two

How do face-to-face tutorial sessions relate to the academic achievement of distance education students?

This research question investigated the potential relationship between in-person tutorial sessions and students' achievement in distance education. Specifically, the eight items comprising the in-person tutorial sessions were summed on a 4-point Likert scale. Next, the direction and strength of the relationship between the in-person tutorial sessions and students' achievement in basic education, early childhood care education, and general agriculture were determined using the Pearson bivariate correlation coefficient, displayed in Table 11.

Table 11: Face-to-face and students' achievement in basic education, early childhood care education and general agriculture

		Perf. (Psy.)	Perf. (Maths.11)	Perf. (Eng.11)
Face-to-face	Person Correlation	0.602**	0.614**	0.00**
	Sig. (2-tailed)	0.000	0.000	0.00
	N	342	342	342

Source: Field Survey 2023 (Significant, p<0.05)

The Pearson bivariate correlation coefficients for basic education, early childhood care education, and general agriculture were determined to be r = 0.602**, r = 0.614**, and r = 0.600**, respectively, based on the data shown in Table 11. The results indicate a substantial correlation between face-to-face instruction and students' success in basic education, early childhood care education, and general agriculture. The p-value of 0.000 is less than the alpha value of 0.05, and all the results are positive. The results suggest that face-to-face instruction substantially impacts students' performance in general agriculture, early childhood care education, and basic education.

Numerous researchers' investigations (Fung & Carr, 2000;; Ogina & Mampane, 2013; Van Zyl & Spammer, 2013) are consistent with these findings. According to the results of their investigations, in-person interactions between students and lecturers, or contact sessions, are ultimately intended to help remote learners succeed academically. Face-to-face communication, therefore, enables the simultaneous delivery and transmission of messages by two or more persons. The ability to convey complicated knowledge between two or more persons using several modes of communication is made possible. The results of this investigation also support the opinions expressed by Ituma (2011), Holley and Oliver (2010), Davis and Graff (2005), and Kassop (2003). Students who engaged in greater online interaction and discussions did not fare appreciably better than those

who participated in in-person sessions in their studies. It is evident that in-person contact facilitates current negotiations and provides appropriate feedback. They claim that in-person instruction improves the learning environment and puts students in a relaxed setting where they can attain better academic qualifications.

The results of this investigation support those of Carnwell (2002). The study found that students who participate in contact sessions can better transfer knowledge, which raises performance levels. This implies that students should be included in the interaction sessions since they learn differently. According to the study, even if these support resources could be proportionately accessible, students' learning preferences could still impact their academic success. Once more, the study's conclusions concur with those of Song and Mcnary (2011). According to the study, there is a direct link between the quantity of discussion forums and the academic standing of the pupils. Grieve (2013) discovered that in-person interactions strongly predict students' involvement and general academic success. The results of this investigation are consistent with those of Olivier (2016).

Olivier (2016) examined how open-distance learning students performed academically in contact sessions and discussion boards. The study's findings showed that students who met with instructors in person had average final test results statistically significantly higher than those who did not.

The results of this study do not appear to support those of Fritsch and Strohlein (1998). They looked at the impact of in-person contact sessions and guidance on students' academic performance at the University of Fein in West Germany. According to the research, the examination outcomes of the groups with mentor contact and those without interaction sessions did not significantly differ. Van Zyl and Spammer's (2013) investigation supports that as well. Researchers at North-West University in South Africa found that contact class sessions had no statistically significant impact on student's academic achievement, even for instructors pursuing an Advanced Certificate

in Education. This suggests that organisations offering distance learning courses must create cooperative settings encouraging students to participate in in-person classes. More involvement and creativity are encouraged in these settings, which is crucial for academic culture. Therefore, it is unnecessary to emphasise the value of genuine conversations in real situations and at real times. Thus, we may conclude that, in general, face-to-face contact sessions have a strong, beneficial link with students' accomplishments in early childhood care education, general agriculture, and basic education.

4.3.3 Research Question Three

How does tutorial attendance relate to the academic achievement of distance education students?

The majority of institutions still base their approaches to learning on lecture and tutorial attendance, even in the face of new technology and a focus on quality (Massingham & Herrington, 2006). Frequent absences from lectures will lower a student's likelihood of doing well in a particular subject. This research inquiry examines the connection between students' academic success and tutorial attendance. A 4-point Likert scale was used to measure the seven distinct items. The items were evaluated using the bivariate Pearson correlation coefficient. Table 12 presents the findings.

Table 12: Tutorial Attendance and students' achievement in basic education, early childhood care education and general agriculture.

		Perf. (Psy.)	Perf. (Maths.11)	Perf. (Eng.11)
Tutor Attendance	Pearson Correlation	0.543**	0.514**	0.53**
	Sig. (2-tailed)	0.000	0.000	0.00

	N	342	342	342

Source: Field Survey 2023 (Significant, p<0.05)

Table 12 shows that the Pearson bivariate correlation coefficients for basic education, early childhood care, and general agriculture are, respectively, r = 0.543**, r = 0.514**, and r = 0.533**. The results show that tutorial attendance was substantially correlated with students' success in general agriculture, early childhood care education, and basic education. All the correlations are positive and significant, with a p-value of 0.000, less than the alpha of 0.05.

The results align with the conclusions of several other investigations. Research has shown that students' academic success and tutorial attendance are positively correlated (Rose et al., 2007; Hocking et al., 2018). According to Thatcher et al. (2007), students who regularly attended lectures had higher grades overall than those who did not attend lectures at all. They concluded that physically attending lectures could be directly linked to improved academic achievement. Plant et al. (2005) examined the connection between Somali higher education students' sociology academic performance and attendance. It was discovered that students' grades improved with increased attendance during lectures. This suggests a favourable correlation between students' performance and the hours they attended lectures. To put it succinctly, tutorial attendance is essential to extending and strengthening the information students learn in lectures. Similarly, students go to tutorials to become familiar with the subject matter. Additionally, Cohen and Johnson (2006) discovered that attendance had a favourable and substantial effect on students' performance in US university principles of economics courses. Additionally, according to Ready (2010), pupils who consistently attend class outperform their counterparts who miss school on assessments.

The results of this investigation also corroborate those of Dean and Murphy (2013). They maintained a favourable correlation between attendance and academic achievement even after

adjusting for demographic variables like age and gender. Results from this study and previous studies (Epstein & Sheldon, 2002; Rose et al., 2007; Hocking, 2008) demonstrate the significance of school attendance since regular attendance increases children's chances of academic success (Pascopella, 2007). This is because when students miss lectures or tutorials regularly, the relationship between the tutor and the students gets strained. Students risk losing out on all the opportunities presented during lectures if they fail to attend class. Alexander and Hicks (2015) investigated whether class attendance in first-year basic education tutorials impacts academic success in related research. The study showed a strong positive link between evaluation scores and attendance. However, the study's conclusions differ from those of Stanca (2006) and Latif and Miles (2013). In their research, they argued that since attendance in class does not ensure success, students must be accountable for their education. One of the main goals of having students attend tutorial sessions would be to support their learning and improve their overall performance in the course.

4.3.4 Research Question Four

How does a conducive learning environment relate to the academic achievement of distance education students?

The efficient administration of the school's learning environment is just as important to the success of remote learning as the tutors carrying out their assigned tasks. This suggests that all activities in the school setting should be produced, coordinated, informed, and managed by the teaching and learning environment. The study sought to determine how much a student's learning environment affected their academic performance in general agriculture, early childhood care education, and basic education. The bivariate coefficient of Pearson was employed. Table 13 presents the findings.

Table 13 Conducive Learning Environment and students' achievement in basic education, early childhood care, and general agriculture.

		Perf. (Psy.)	Perf. (Maths.11)	Perf. (ENG.11)
Condition of Learner Environment	Pearson Correlation	0.441**	0.349**	0.28**
	Sig. (2-tailed	0.000	0.000	0.00
	N	342	342	342

Source: Field Survey 2023 (Significant, p<0.05)

As can be seen from Table 13, the Pearson correlation coefficients for educational psychology, mathematics for basic schoolteachers (II), and English for basic schoolteachers (II) are, respectively, r = 0.441**, r = 0.349**, and r = 0.284**. All the coefficients are positive and have a significance level of p-value = 0.000, less than alpha = 0.05. This means a significant relationship existed between students' achievement in educational psychology, mathematics for basic schoolteachers (II), and English for basic schoolteachers (II) and a conducive learning environment. The relationship between students' learning environment and achievement persists even if the coefficients are often modest.

These results agree with those of several other research. According to this research, academic success and pupils' learning environment are positively correlated (Ajayi & Oguyemi, 1990; Kos, 1990; Brown, 2004; West, 2005; Lehr, 2010). Raising expectations for students and enhancing the learning environment can boost the effectiveness of low-achieving students, as McEvoy and Welker (2005) found in their study. In their study, Hoy and Hannum (1997) also discovered that independent of socioeconomic background, pupils' success was correlated with the school learning environment, sometimes known as the school climate. Once more, the study's findings support the

opinions Megan (2002) voiced. Megan (2002) discovered in her research that the school climate in high-risk urban environments significantly impacts student success.

The results of this investigation corroborate those of Stewart (2014). According to Stewart (2014), the best indicator of students' academic success is the feeling of school cohesiveness. This study and others indicate that low performance and high absence rates among children are caused by inadequate maintenance and inefficient ventilation systems, which are crucial elements of the school environment. The study's conclusions align with the opinions expressed by Stevens and Lowing (2008). The study found a strong correlation between student success and the school atmosphere. The study's results showed that the influence of the school environment on academic success was greater in communities with higher socioeconomic levels than in schools with lower socioeconomic class populations.

However, the study's conclusions run counter to those of Huesmann (1994), McEvoy and Welker (2000), and Schwartz et al. (2006). Their independent research concluded that the school atmosphere or a supportive learning environment did not significantly impact kids' academic progress.

4.3.5 Research Question Five

How does students' preparedness relate to the academic achievement of distance education students?

One of the most important elements affecting academic success, among many others, is the student's contributions to their education. The contributions and readiness of each student matter much in the teaching and learning process. This suggests that children must put in more work to improve their learning, regardless of the efforts made by parents and instructors. The researcher

set out to investigate the relationship between students' readiness and their performance in the online learning environment. The Pearson bivariate correlation coefficient was used. Table 14 presents the findings.

Table 14 – Students' preparedness and achievement in basic education, early childhood care education and general agriculture.

		Perf. (Psy.)	Perf. (Maths.11)	Perf. (Eng.11)
Students Preparedness	Pearson Correlation	0.567**	0.524**	0.56**
	Sig. (2-tailed)	0.000	0.000	0.00
	N	342	342	342

Source: Field Survey 2023 Significant, p<0.05

The Pearson bivariate correlation coefficients between academic success and students' preparation are displayed in Table 14 and have significance levels of *p*-value = 0.000, less than alpha = 0.05. The values of the correlation coefficients are r = 0.567**, r = 0.524**, and r = 0.566**. This suggests a strong correlation between pupils' academic success and readiness. This result indicates that students' concentrated learning activities are the most beneficial for academic success. Most students believe that to succeed in postsecondary education, they must master effective time management techniques and maximise their study sessions by participating in relevant coursework (Taylor & Bedford, 2004).

The study's conclusions align with other studies (Gottfried & Gottfried, 2004; Gottfried et al., 2007; Astin, 1993; Handelsman et al., 2005; Kayatin, 2005). They all believed in one form or another in their research that participation in activities with an educational goal was favourably correlated with their academic performance. The current study's findings are those of Adekeyi (2002), Assouline et al. (2006), and Marquez (2009). Their research insisted that students' efforts

and aptitudes are mostly responsible for their increased academic success. They conclude that to improve their grade point average (GPA), students must use effective learning habits in all their classes.

The results of this investigation support those of Wawrynski (2005). In this study, students who participated more in classroom-related activities reported better results. The study's results concur with Akimlana's (2012) conclusion. The study discovered that a student's academic success may be accurately predicted by academic optimism and focus. The results of this investigation support Davis's position again (2009). He discovered that students' engagement and desire to participate in class lead to better success levels.

4.4 Findings on Hypothesis

The study's guiding hypothesis is attempted to be tested in this paragraph. Multiple regression techniques were employed to assess the hypothesis in light of this. Therefore, the following are the null and alternative hypotheses:

4.4.1.H_0: *Academic success of distance education students will not be directly predicted by institutional support services (course materials, in-person instruction, and a conducive learning environment).*

H_1: *Course materials, in-person instruction, and a supportive environment will all be important factors in predicting the academic success of distance learning students.*

Tables 15, 16, and 17 display the dependent variable's regression findings on the predictor and mediator factors.

Table 15 : A model summary of multiple regression analysis of effects of institutional support services on academic achievement in Basic Education.

Predictors	Basic Educational Quiz Score		
	Model 1	Model 2	Model 3
	β	β	β
Face-to-face	0.429 (0.000)*	0.362 (0.000)*	0.283 (0.00)*
Course Modules	0.287 (0,000)*	0.230 (0.000)*	0.183 (0.00)*
Conducive Environment	0.246 (0.000)*	0.211 (0.000)*	0.180 (0.00)*
Tutorial Attendance	0.225 (0.000)*	0.205 (0.003)*	
Students Preparedness			0.294 (0.00)*
Constant	-3.385	-3.513	-3.404
R	0.720	0.744	0-775
R2	0.518	0.554	0.600
AR2	0.514	0.549	0.594

Source: Field Survey, 2023 (Significant, p<0.05)

The findings of the multiple regression analysis are displayed in Table 15. There were three models for the analysis. In Model 1, one can find the predictor variable coefficients, standard error, significance level, correlation (R), R-square (R2), and adjusted R2 (AR2). The standard error, the degree of significance, the correlation (R), the R-square (R2), the adjusted R2 (AR2), and the coefficients of the predictor variables and one mediator variable are also included in Model 2. Finally, Model 3 displays the coefficients of the two mediating factors and the predictor variables together with the standard error, significance level, correlation (R), R-square (R2), and adjusted R2 (AR2).

Upon regressing the Basic Educational quiz score on the independent factors in model 1, it was discovered that every independent variable was a significant predictor of performance in remote education. Even though the independent factors in models 2 and 3 decreased as the intervening variables—tutorial attendance and students' preparedness were added, they were still shown to be

significant predictors of Basic Educational performance. To put it briefly, shrinkage represents the contribution of the mediating factors.

Course modules and a face-to-face, supportive learning environment remained important predictors, but their coefficients decreased when the intervening factors were in Models 2 and 3. For instance, Model 2's continuously significant independent variables decreased when tutorial attendance was included. There were 16% fewer face-to-face course modules and 14% less suitable learning environments. This suggests that the values lost due to shrinkages represent the intervening variables' contribution to the independent variables. Finally, even after Model 3 was trained with students' readiness, the amount of course materials and a supportive learning environment decreased by 22%, 20%, and 15%. According to the research, students who attend tutorials are encouraged to thoroughly prepare for their academic work, ultimately improving their performance in basic education.

Therefore, this study's results show that the main independent determinants of academic accomplishment in Basic Education are face-to-face instruction, course modules, and a supportive atmosphere. Given this, the researcher contends that in-person contact sessions are the most crucial student assistance for distance education learners (Fung & Carr, 2000). According to Major (2011), in-person tutoring sessions can be the most efficient means of delivering knowledge to a class. The study demonstrated that a tutor can synthesise all concepts and expertise for prospective students face-to-face. It is important to remember that face-to-face sessions in distance learning are often designed to allow students to communicate with their facilitators, who answer queries and provide more thorough explanations and clarification of the course contents.

Table 16: A model summary of multiple regression analysis of effects of institutional support services on academic achievement in Early Childhood Care Education.

Predictors	Early Childhood Care Education Quiz Score		
	Model 1	Model 2	Model 3
	β	β	β
Face-to-face	0.466 (0.000)*	0.405 (0.000)*	0.339 (0.000)*
Course Modules	0.290 (0,000)*	0.238 (0.000)*	0.199 (0.000)*
Conducive Environment	0.143 (0.001)*	0.112 (0.007)*	0.085 (0.033)*
Tutorial Attendance	0.204 (0.000)*	0.186 (0.003)*	
Students Preparedness			0.210 (0.000)*
Constant	-3.191	-3.319	-3.206
R	0.696	0.718	0-740
R2	0.485	0.515	0.547
AR2	0.481	0.509	0.540

Source: Field Survey, 2023 (Significant, p<0.05)

The findings of the multiple regression analysis are shown in Table 16. Three models were used for the analysis. The predictor variable coefficients, standard error, significance level, correlation (R), R-square (R2), and adjusted R2 (AR2) are provided by Model 1. The predictor variable and one mediator variable coefficients, standard error, significance level, correlation (R), R-square (R2), and adjusted R2 (AR2) are also included in Model 2. Finally, Model 3 presents the degree of significance, the correlation (R), the R-square (R2), the adjusted R2 (AR2), the standard error, and the coefficients of the predictor variables and two mediator factors in the study.

The first model involved regressing the Early Childhood Care Education exam score on the predictor variables: in-person instruction, course modules, and a supportive learning environment. Despite their shrinkage, all of the independent factors were shown to be very significant predictors of kids' academic success in early childhood care and education.

The independent factors in model 2 shrank dramatically when the Early Childhood Care Education was regressed on the same independent variables and one intervening variable. However, they

remained significant predictors of children's academic success. This implies that the independent and intervening variables have similar predictive abilities. The independent factors could not have predicted students' academic success without the intervening variable. In other words, they had an impact after the independent factors were transferred via the mediating variable. Last, even when Model 3 included the students' preparation variable, it remained an unreliable predictor. This demonstrates that the independent variable did not directly influence success in early childhood care and education. The mediating variables allowed them to do this.

Furthermore, in Table 16, the bulk of the independent variables' coefficients decreased when the intervening factors—tutorial attendance and students' preparedness were included in Models 2 and 3. For instance, face-to-face course modules, the accommodating atmosphere, and tutorial attendance decreased by 13%, 18%, and 22%, respectively, but they kept their significant levels when tutorial attendance was included in model 2. Once more, face-to-face course modules and the supportive atmosphere decreased by 17%,16%, and 24%, respectively, with the introduction of students' preparation in model 3. Despite this, the changes were still noteworthy. This implies that the values lost due to shrinkages represent the actual contribution of the intervening variables.

These suggest that even though the predictor factors in Model 1 were significant, such as face-to-face interactions and course modules, they lost significance after adding the mediating variables. This implies they did not significantly predict students' success in early childhood care education since they shared their predictive power with the intervening factors. This suggests that the intervening variable's entrance signifies the predictor variables' insufficiency in predicting their performance. This implies that the independent factors alone do not significantly predict students' academic ability without the intervening variables.

Even though they all decreased in Model 3, the results in Table 16 show that in-person instruction, course modules, and a supportive learning environment were reliable indicators of success in Early Childhood Care Education. In this sense, in-person instruction, course modules, and a supportive learning environment were the most important factors in predicting students' success in early childhood care education. Thus, the researcher hypothesises that when students get support through reading materials, facilities, and human connections, these services will help students learn and lessen the drawbacks of studying remotely (Simpson, 2000).

Table 17– Multiple Regression of the English for General Agriculture Quiz Score on the Independent and Intervening Variables

Predictors	General Agriculture Quiz Score		
	Model 1	Model 2	Model 3
	β	β	β
Face-to-face	0.421 (0.000)*	0.357 (0.000)*	0.278 (0.000)*
Course Modules	0.369 (0,000)*	0.315 (0.000)*	0.269 (0.000)*
Conducive Environment	0.148 (0.000)*	0.116 (0.004)*	0.084 (0.027)*
Tutorial Attendance		0.211 (0.000)*	0.191 (0.003)*
Students Preparedness			0.253 (0.000)*
Constant	-3.484	-3.606	-3.494
R	0.720	0.742	0-773
R2	0.515	0.546	0.591
AR2	0.481	0.509	0.540

Source: Field Survey, 2023 (Significant, p<0.05)

The findings of the multiple regression analysis are displayed in Table 17. There were models used for the analysis. Three models altogether were utilised. Provided by Model 1 are the predictor variable coefficients, standard error, significance level, correlation (R), R-square (R2), and adjusted R2 (AR2). Along with the standard error, significance level, correlation (R), R-square (R2), adjusted R2 (AR2), and coefficients of the predictor variables and one mediator variable, Model 2 also includes this information. The standard error, the degree of significance, the correlation (R), the R-square (R2), the adjusted R2 (AR2), and the coefficients of the predictor

variables and two mediating variables are also displayed in the analysis's Model 3. All of the independent factors were significant predictors of performance in General Agriculture when the General Agriculture quiz score was regressed on the independent variables in Model 1, which included face-to-face instruction, course modules, and a supportive learning environment.

Despite the introduction of tutorial attendance and student preparation in Models 2 and 3, respectively, gender remained an insignificant predictor of General Agriculture success. This implies that the mediating factors and the independent variables have similar predictive abilities. This suggests that the independent variables in general agriculture do not predict achievement unless the intervening variables are present. To put it succinctly, the independent variable only has an impact after passing through the intervening factors. For example, face-to-face and course module attendance decreased by 15% and 14%, respectively, when tutorial attendance was included in Model 2. On the other hand, the conducive learning environment decreased by 22% but remained considerable. Again, the number of face-to-face course modules and appropriate learning environments decreased by 22%, 15%, and 10%, respectively, when Model 3 included the concept of student readiness. The results show that the mediating variables' contribution to the independent variables is represented by the values lost due to shrinkages.

The results in Table 17 show that in-person instruction and course modules were reliable indicators of students' success in general agriculture. Even though in Models 2 and 3 they both shrank. Given this, the researcher believes a tutor may best synthesise all concepts and expertise for prospective students through face-to-face instruction (Major, 2011). The researcher's perspective aligns with similar viewpoints that Kassop (2003) expressed. According to Kassop (2003), in-person instruction fosters learner empowerment and provides a welcoming environment for individuals

to pursue higher education qualifications. According to Dzakira (2008), face-to-face conversations and mutual support lessen some distance learning students' feelings of loneliness and isolation.

The data in Tables 15, 16, and 17 prove that the accomplishments in General Agriculture, Early Childhood Care Education, and Basic Education cannot be directly predicted by independent factors. The independent factors and the intervening variables, tutorial attendance and student preparedness, share predictive power.

The study's conclusions align with the findings of several other studies (Purcell, 2007; Adair & Smith, 2012; Dean & Murphy, 2013). For instance, Alexander and Hicks (2015) argued that readiness and attendance are the most important indicators of a student's success, particularly in distance learning. First, students have a big say in how well they learn (Nicholas & Sutton, 2013). In a related research, Zarei (2008) said businesses prioritise recruiting candidates based on their academic accomplishments, particularly for recent graduates. This implies that students must work hard to achieve high marks, prepare for future professional prospects, and meet employer demands.

4.4 Summary

The three sections of this chapter comprised the major data findings, the demographic data results, and the discussion. The direction and link between the independent and mediating variables were determined using the Pearson Moment Correlation Coefficient. Regression analysis was used to evaluate the study's premise.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.0 Introduction

The study aimed to determine how institutional support services impacted the academic performance of the University for Development Studies' distance learning students. This chapter includes an overview of the major discoveries, inferences from the data, and recommendations/suggestions.

5.1 Summary

The study aimed to determine whether students' success in basic education, early childhood care education, and general agriculture correlate with elements like in-person tutorial sessions, the creation of course materials, tutorial attendance, a supportive learning environment, and student's level of preparation. The Transactional Distance Theory and the Theory of Autonomy and independence Study were the study's pillars. Descriptive and correlational study approaches were utilised to ascertain the relationship between these elements and students' academic progress in General Agriculture, Early Childhood Care Education, and Basic Education.

All students enrolled at the University for Development Studies' study centres in the northern area were the target group. Students in their second year at the Tamale, Bimbilla, and Yendi study centres made up the accessible population. The research's curriculum, study locations, and student count were all chosen by a multi-stage sampling process. Three hundred forty-two respondents completed a closed-ended questionnaire that acted as an organised interview guide. Inferential statistics with the Pearson moment correlation coefficient were utilised to find answers to the study questions, while frequencies, percentages, means, and standard deviations were employed for the

preliminary analysis. The degree and direction of the relationships between the independent, intervening, and dependent variables were determined using this statistical method. Using the multiple regression approach, the hypothesis was tested. The section that follows contains the data analysis findings.

5.2 Key Findings

This section presents the conclusions and responses to the study questions and the investigated hypotheses.

1. The study found a significant and favourable correlation between creating course modules and students' success in General Agriculture, Early Childhood Care Education, and Basic Education.

2. The study also showed that students' success in General Agriculture, Early Childhood Care Education, and Basic Education is strongly and positively correlated with in-person tutorial sessions. The results suggest that face-to-face instruction substantially impacts students' performance in these subjects.

3. The study demonstrated a positive correlation between tutorial attendance and students' performance in general agriculture, early childhood care education, and basic education.

4. The study's conclusions demonstrated a favourable correlation between students' performance in general agriculture, early childhood care education, and basic education and the conducive learning environment.

5. The study discovered a positive correlation between students' preparedness and their accomplishment in basic education, early childhood care education, and general agriculture.

6. The null hypothesis was not rejected as it was shown that the independent variables did not independently predict students' academic success in general agriculture, early childhood care education, and basic education.

5.3 Conclusions of the study

The dynamic process that students, tutors, and students and other students share is one of the essential components of distance learning. These connections are cultivated through in-person interactions. From contact sessions, rich information and enduring experiences are inferred. When people communicate face-to-face, the full encounter may be seen, felt, and heard. Without question, face-to-face communication is still very important and essential. Actively witnessing an instructor or subject matter expert exude enthusiasm for a subject matter sparks a similar enthusiasm, improves interest since there are fewer outside distractions, and increases the chance of retention. These in-person interactions will guarantee that students retain the material and courses better and allow colleagues to connect, socialise, and strengthen their sense of teamwork. This includes the extra benefit of forming social connections and learning from others.

It is impossible to overstate the role of instructional resources or course modules in helping students achieve their learning objectives and grow intellectually. Compared to students who did not have access to course materials, students who were given and taught using course modules had exceptional achievement results.

5.4 Recommendations from the Study

The following suggestions support the study's results and findings.

1. The University for Development Studies' Institute of Distance and Continuous Learning should continue to ensure that in-person meetings are run in a way that meets learners' requirements and

improves performance. Once more, this study proved that an efficient connection between learning support services and facilitation is necessary for contact sessions to be successful. It is imperative that the Institute of Distance and Continuous Learning attends to the concerns raised by students regarding these administrative obstacles to guarantee the ongoing enhancement of the distance education programme.

2. The University for Development Studies' Institute of Distance and Continuous Learning should hire more seasoned and qualified tutors to serve as mentors and role models for less seasoned and inexperienced instructors. In other words, the tutor's position has to be reevaluated and reinvented.

3. Tutors must undergo retraining to conduct in-person tutorial sessions consistently and with a shared knowledge of expectations. The main emphasis of the training should be on techniques for improving teacher proficiency in the course material.

4. To avoid students doubting the facilitators' sincerity, it is imperative that the course instructors prepare well in advance of the contact sessions. Tutors should make every effort to use the resources that are accessible for teaching when needed to make their lessons engaging, thought-provoking, and fascinating.

5. Distance education institutions should efficiently arrange learning support services to ensure that student learning is not impeded. Programme coordinators should strive for excellence, conduct quality control, and assess the advantages and disadvantages of their tutors.

6. A favourable learning environment is necessary for online education to be effective. Organising the classroom well and fostering an innovative culture can create and sustain an engaging learning environment for students. The Institute should offer appropriate learning environments at the different study centres for efficient tutoring and learning. For students to routinely attend lectures

and feel like they are a part of the institution, such an atmosphere needs to be safe and fair in how instructors and the administration treat them.

7. The University for Development Studies' Institute of Distance and Continuous Learning should set aside enough money to outfit the study centres' deficient or non-existent physical infrastructure. The academic institutions must offer study spaces with internet connectivity and recreational amenities like those on the main campus.

5.5 Recommendations for Future Research

While the study has served its aim, some connected areas demand further investigation. Future studies could investigate how student administrative assistance affects academic achievement and motivation. Investigating the learning centre-specific influences on learners' achievement may also reveal the role of contextual differences in initiating, widening, or reducing achievement differences

REFERENCES

Abass, B.T., Bimbo, A., & Ojo A.O. (2012). Effects of animated agricultural Science Instructional Package on attitude and performance of Junior Secondary School Students in South-West Nigeria. Mediterrian Journal of Social Science, 3(1), 425- 435.

Abdo, M., & Semela, T. (2010). Teachers of Poor Communities: The tale of instructional media in primary schools of Gedeo zone, Southern Ethiopia. *Australian Journal of Teacher Education, 35*(7), 78-92.

Abdu-Raheem, B.O. (2014). Availability, adequacy, and utilization of social studies instructional materials in Ekiti State secondary schools. *Journal of Current Discourse and Research, 3,* 242-255

Abolade, A.O. (2009). Basic criteria for selecting and using learning and instructional materials. In I.O. Abimbola & A.O. Abolade (Eds.), *Fundamental principles and practice of instruction*. Department of Science Education, Ilorin. pp 497-504

Abrahamson, C. E. (1998). Issues in interactive communication in distance education. College Student Journal, 32(1), 33-42.

Adair, K., & Swinton, O. H. (2012). Lab attendance and academic performance. Retrieved from http://dx.doi.org/10.5402/2012/364176

ADEA (Association for the Development of Education in Africa) (2002). Distance learning in sub-Saharan Africa: A literature survey on policy and practice. Working Group on Distance Education and Open Learning. Retrieved from http://www.adeanet.org/wgdeol/wgdeol/publications/open%20learni ng%201.pdf

Adekola, B. O. (2008). Some predictors of students' achievement in English grammar and comprehension in Ogun State public senior secondary schools. A Ph.D. post-field report presented at the Departmental Seminar of Curriculum Studies an Instructional Technology, Olabisi Onabanjo University, Ago-Iwoye.

Aden, N., Sybouts, W., & Wess, R. (1998). Students services in distant learning environment. Nebraska Network 21(12), 123-132.

Adomi, E. E. (2005). Internet development and connectivity in Nigeria. Department of Library and Information Science, Delta State University, Abraka, Nigeria. Retrieved from http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2800390306.html

Aggor, R. A., Kinyanjui, P., Pecku, N. K., & Yerbury, J. C. (1992). Survey on Distance Education in Ghana. Accra, Ghana: University of Ghana Press.

Aggrey, E. (2009). *Effect of human right education on senior high school students' behaviour in the Cape Coast Metropolis of Central Region, Ghana*. Winneba: University of Education.7

Agyei-Bieni, W. (2009). Improving distance education delivery at UEW. A Paper presented at the UEW Registrar's bi-weekly Meetings at the J. N. Aryeetey Auditorium UEW.

Ahmed, A. (2011). Importance of distance education in India. Retrieved from http://www.internationalpeaceandconflict.org/profiles/blogs/importance-of-distance

Ajayi, A.O., & Akinwumiju, J.A. (1990). Personnel performance and capacity building. Ibadan, Nigeria: Okachi Press..

Akinleye, G.A. (2010). *Enhancing the quality of life in this complicated but dynamic world*. 25th Inaugural lecture, University of Ado-Ekiti.

Akoh, J. J. K. (2011). Patients' awareness of their healthcare-related human rights in Winneba Municipal, Central Region, Ghana. Unpublished master's thesis, Department of Social Studies Education, University of Education, Winneba.

Akuamoah-Boateng, C., Sam-Tagoe, J., & Brown, P. (2012). A content analysis of the effect of outsourcing on cost control in distance education. *International Journal of Arts and Commerce, 1(*6), 9-20.

Al-bedour, T. (2004). *Gender roles which the youth develop within the Jordanian family.* Unpublished master thesis, University of Jordan, Amman, Jordan. (In Arabic)

Alexander, K. L., Entwisle, D. R., & Horsey, C. S. (1997). From first gradeforward: Early foundations of high school dropout. *Sociology of Education, 70,* 87‑107.

Alexander, K., & Hiscki, N. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record, 103*(5), 760-822.

Allport, F. H. (1995). *Theories of perception and concept of structure.* New York, NY: John Wiley and Sons Inc.

Alsadah, H. (1993). *Women's role in school books in the primary educational system in Bahrain. Paper presented at the Arab Curriculum between Planning and Implementation.* Mohammad AlKhames University, Morocco (in Arabic)

Amedahe, F. K. (2002). Notes on educational research. Unpublished, Faculty of Education, University of Cape Coast, Cape Coast.

American Federation of Teachers (AFT). (2007). *Management controls for distance education at State agencies and accrediting agencies.* Washington, DC: U. S. Government Printing Office.

Amundsen, C. L., & Bernard, R. M. (1989). Institutional support for peer contact in distance education: An empirical investigation. *Distance Education, 10*(1), 7-27.

Andrianus, C., & Herrero, A. (2009). *Challenges for open and distance learning in the post-2010 decade: Scenarios for institutional innovation*. Retrieved from http://www.elearningpapers.eu

Antwi, M. K. (1992). Education, society and development in Ghana. Accra, Ghana: Unimax Publishing Limited.

Anzalone, S., Bosch, A., Moulton, J., & Murphy, P. (2002). *Enhancing learning opportunities in Africa distance education and information and communication technologies for learning.* The World Bank. Retrieved from http://siteresources.worldbank.org/AFRICAEXT/Resources/dl_ict_e ducation.pdf

Appleton, M. (1994). *Investigating library services for post-graduate offcampus students*. University of Ghana. Retrieved from http://ugspace.ug.edu.gh

Asabre-Ameyaw, K. (2008). 15000 teachers leave classroom every year to study. *Daily Graphic* (No. 150279) p. 31.

Azikiwe, P.O. (2007) Instructional strategies and audio-visual aids for teacher effectiveness. *Bichi Journal of Education, 2*(1), 114-117.

Babbie, E. (2010). *The practice of social research* (12th ed.). Belmont, AC: Wadsworth.

Badu-Nyarko, S. K. (2010*).* Isolation and control in distance education: The case of the Ghanaian student. *International Journal of Instructional Technology and Distance Learning (IJITDL), 7(*3), 13-16.

Baker, T. L. (1994). *Doing social research*. (2nd ed.). New York, NY: McGraw-Hill Inc.

Bampo, J. (2008). *Students' assessment of facilities and services available for distance teaching and learning in the University of Cape Coast*. An unpublished MPHIL thesis, Faculty of Education, University of Cape Coast, Cape Coast.

Banda, F. K. (2000). Challenges in distance education: Experiences of female teacher-learners at Dormasi College of Education. Malawi. Dormasi College of Education. Retrieved from http://www.col.org/pcf3/Papers/PDFs/Banda_Florida%20Khumbo.pdf

Bandura, A. (2005). The evolution of social cognitive theory. In K.G. Smith & M.A. Hitt (Eds.), Great minds in management (pp. 9–35). Oxford: University Press.

Barwick, D. W. (2007). Views: Does class size matter? Inside Higher Ed. Retrieved from http://www.col.org/pcf3/Papers/PDFs

Bates, A. (2000). Managing technological change: Strategies for college and university leaders. San Francisco, CA: Jossey-Bass.

Bates, A. (2005). Technology learning and distance education. (2nd ed.). New York, NY: Routledge.

Bates, T. (1993). Theory and practice in the use of technology in distance education. London, England: Routledge.

Bates, T. (1995). Technology: Open learning and distance education. New York, NY: Routledge.

Beaudoin, M. (1990). The instructor's changing role in distance education. The American Journal of Distance Education, 4(2), 21-29.

Berge, L. J. Z. (2002). *Successful distance education programs in Sub- Saharan Africa.* Baltimore: Michigan State University.

Bingham, M. J. (2002). Effects of computer-assisted instruction versus traditional instruction on adult GED student TABE scores. Unpublished doctoral dissertation, Hattiesburg University of Southern Mississippi.

Bischoff, W. R., Biscotier, S., Kooker, B., & Woods, L. (1996). Transactional distance and interactive television in the distance education of health professionals. The American Journal of Distance Education, 10(3), 4-19.

Bishop, G. (1986). Innovation in education. London: MacMillan Publishers.

Blaxter, I., Hughes, C., & Tight, M. (1996). How to research. Buckingham: Open University Press.

Block, J. (2008). Library anxiety and the distance learning graduate student: A case study of Eastern Michigan University. MLA Forum, 5(3), 6.

Bluwey, G. K. (2002). Practical science. An introduction. Accra, Ghana: Yamens Press ltd.

Boachie-Mensah, F. O. (2000). Essentials of management. Accra, Ghana: Woeli Publishers.

Bollag, B., & Overland, M. A. (2001). Developing countries turn to Distance education. Chronicles of Higher Education, 47(40), 29-31.

Bredo, E. (1994). Reconstructing educational psychology: Situated cognition and Deweyan pragmatism. Educational Psychology, 29(1), 23-25.

Brehen, S. C., & Grobler, R. (1997). The instructors' changing role in distance education. The American Journal of Distance Education, 11(4), 21-29.

Bruce, H. C., & Neville, P (2009). Evaluation in education. Oxford: Pengamon Press.

Brunner, C. (1991). Gender and distance learning. The Annals of American Academy, 514, 113-145.

Burns, A., & Darling, N. (2002). Peer pressure is not peer influence. *The Education Digest, 68,* 4-6.

Carnwell, R. (2002). Distance education and the need for dialogue. *Open Learning, 17*(2), 58 ‑ 60

Carrière, M. F., & Harvey, D. (2001). Current state of distance continuing medical education in North America. *The Journal of Continuing Education in the Health Professions, 21*(3), 150-157.

Carter, A. (2001). Interactive distance education: Implications for the adult learner. *International Journal of Instructional Media, 28*(3), 249- 261.

Chiu-Jung C. T. (1998). *The theoretical basis for distance education*. Arizona State: Arizona State University

Chivore, C. J. (1993). The future of multimedia: Bridging to virtual worlds. *Educational Technology, 8*(32), 54-60.

Chou, P. (1994). *Guide to managing at telecourse/distance learning programme*. Suisun, California: Learning Resource Association.

Choudhry, A. H., Gujjar, A. A., & Hafeez, M. R. (2008). Comparative study of student support services of AIOU and UKOU. *Turkish Online Journal of Distance Education (TOJDE), 9*(1), 85-99.

Chwartz, D. J., Hopmeyer, Gorman A., & Mckay, T. (2006). Popularity, social acceptance, and aggression in adolescent peer groups: Links with academic performance and school attendance. *Developmental Psychology, 42*(6), 1116-1127.

Cohen, D., & Crabtree, B. (2006). *Qualitative research guidelines project.* http://www.qualres.org/HomeEval-3664.html0

Cohen, L, Manion, L., & Morrison, K. (2005). *Research methods in education*. (5th ed.). London: Routledge Falm.

Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education* (5th ed). London: Routledge Falmer.

COL (1992). Commonwealth Secretariat. Administrative Structure for Distance Education.

Coldeway, D. O., MacRury, K., & Spencer, R. (2003). *Distance education from the learner perspective: The results of individual tracking at Athabasca University.* Edmonton: Athabasca University.

Commission on Human Rights and Administration Justice (2008). The State of Human rights in Mining Communities in Ghana. CHRAJ Ghana, Accra: Old Parliament House, High Street.

Commonwealth of Learning (CoL). (2004). *Defining open and distance learning*. Retrieved from http://www.col.org/resource/

Creswell, J. W. (2012b). Research design: Qualitative, quantitative, and mixed methods. Thousand Oaks, CA: Sage.

Darkwa, O., & Mazibuko, F. (2000).Creating virtual learning communities in Africa: Challenges and prospects. First Monday, 5(5). Retrieved from http://firstmonday.org/issues/issue5_5/darkwa/#d4

Daud, S. M., Hashim, Y., & Saleh, M. N. (2000). Factors influencing the effectiveness of teaching and learning through the video conferencing in distance education (in Malay). Malaysian *Journal of Distance Education, 2*(1), 67-90.

Deane, R. P., & Murphy, D. J. (2013). Student attendance and academic performance in undergraduate obstetrics/gynecology clinical rotations. *JAMA, 310*(21), 2282-2288.

Deci, E. L. (1980). *The Psychology of Self-Determination*. D.C.: Heath, Lexington, MA.

Denscombe, M. (1998). *The good research guide*. Buckingham, Open University Press.

Dervarics, C. (2001). Support builds for distance learning. *Community College Week, 14*(1), 3-5.

Dibiase, D. (2001). Is distance education a Faustian bargain? *Journal of Geography of Higher Education, 24*(1), 130-136.

Dillon, C., & Blanchard, D. (May). Education for each: Learner driven distance education. A paper presented at The Second American Symposium on Research in Distance Education, The American Center for the Study of Distance Education, The Pennsylvania State University, Pennsylvania. Retrieved from https://tojde.anadolu.edu.tr/tojde8/articles/mdu.htm

Distance Education Council Guidelines (2006). *Establishment and operation of open and distance learning institutions in India.* INOU. Maidan Garhi, New Delhi.

Dodd, T. (1991). The development of distance education: A historical perspective. Mumbai, India: National Open University Extension College.

Donald, J. (1997). *Improving the learning support for Learning*. San Francisco, CA: Jossey-Bass

Donkor, S. (2012). *Comparative study of tutorial systems in University of Ghana and Kwame Nkrumah University of Science and Technology.* Unpublished Thesis. University of Ghana, Legon.

Doug, V. (2002). Distance learning: Promises, problems and possibilities. *Online Journal of Distance Learning Administration, 5*(III), 65-69. Retrieved from http://www.westga.edu/~distance/ojdla/fall53/valentine53.html.

Downing, K., Chan, S., Downing, W., Kwong, T., & Lain, T. (2008). Measuring gender differences in cognitive functioning. *Multicultural Education & Technology Journal, 2*(1), 4-18.

du Plooy, G. M. (2007). Self-assessment and self-reflection in higher and distance education: Existential reflections. *Progressio, 29*(1 & 2), 21‑37.

Dzakira, H., & Idrus, R. M. (2003). Teacher- Learner Interactions in Distance Education: A Case of Two Malaysian Universities. *Turkish Online Journal of Distance Education-TOJDE, 4*(3), 63-69.

Elliot, J., & Kervin, D. (1999). *Adult education research: Issues and directions*. San Francisco: Jossey-Bass.

Epstein, J.L., & Sheldon, S.B. (2002) Present and accounted for: Improving

student attendance through family and community involvement.

Journal of Educational Research, 95, 308-318.

Ferguson, L., & Wijekuman, K. (2000). Effective design and use of webbased distance learning environments. *Professional Safety, 45*(12), 28-33.

Finance Section-UCC. (2002-2011). *Annual financial reports*, University of Cape Coast, Ghana.

Floyd, D. L., & Casey-Powell, D. (2004). *New roles for student support services in distance learning*. San Francisco: Jossey-Bass.

Frankfort-Nachmias, C., & Nachmias, D. (2008). *Research methods in the social sciences,* (7th ed.). New York, NY: Worth Publishers.

Fritsch, H., & Ströhlein, G. (1988). Mentor support and academic achievement. *Open Learning, 3*(2), 27-32.

Fung, Y., & Carr, R. (2000). Face-to-face tutorials in distance learning system: meeting student needs. *Open Learning, 15*(1), 35--46.

Galusha, J. M. (1997). *Barriers to learning in distance education*. University of Southern Mississippi. Retrieved from http://www.tcom.ohiou.edu/ouln/BarrierstoLearninginDistanceEduca tion.htm.

Garrison, D. R. (1989). *Understanding distance education: A framework for*

the future. London: Routledge.

Garrison, D. R. (1990). An analysis and evaluation of audio teleconferencing to facilitate education at a distance. *The American Journal of Distance Education, 4*(3), 13-14.

Garrison, D. R. (1993). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education, 7*(1), 7-15.

Garrison, D. R. (1994). Theoretical challenges for distance education in the 21st century: A shift from structural to transactional issues. *International Review of Research in Open and Distance Learning. 1*(1), 1-7.

Garrison, D. R. (1997). *Understanding distance education: A framework for the future.* London: Routledge.

Garrison, D. R. (2000). Theoretical Challenges for Distance Education in the 21st Century: A Shift from Structural to Transactional Issues. *International Review of Research in Open and Distance Learning, 1*(1), 12-18.

Garrison, D., & Shale, D. (1996). Mapping the boundaries of distance education: Problems in defining the field. *The American Journal of Distance Education, 10*(4), 7-13.

Gay, R. L. (1992). *Educational research competencies for analysis and application*. (4th ed.). New York: MacMillan Publishing Company.

Gbamanja P. T. (2001). Essentials of Curriculum and Instruction, Theory and Practice. Port Harcourt: Pam Unique Publishing Company

Gibbs, G., & Simpson, C. (2004). Conditions under which assessment supports students' learning. *Learning and Teaching in Higher Education, 1*, 3-31.

Giossos, Y., Koutsouba, M., Lionarakis, A., & Skavantzos, K. (2009). Reconsidering Moore's transactional distance theory. *European Journal of Open Distance and ELearning, 2,* 1‐6. Retrieved from http://www.eurodl.org/?article=374

Girdwood, A. (1999). *Tertiary education policy in Ghana an assessment*. 1988-1998 pp. 42. Retrieved from http://82.77.46.162:8080/gsdl/collect/secedu/index/assoc/s6588e/doc. pdf

Gladding, S. T. (1998). *Counseling as an art: The creative arts in counseling* (2nd ed.). Alexandria, VA: American Counseling Association.

Government of Ghana (2004). *White paper on the report of the Education Review Committee*. Accra: Ministry of Education, Youth and Sports.

Government of Ghana. (1989). *Ministry of Education*. Accra, Ghana: PBME Division.

Graham, M., & Scarborough, H. (1999). Computer mediated communication and collaborative learning in an undergraduate distance education environment. *Australian Journal of Educational Technology, 15*(1), 20-46.

Greenberg, G. (1998). Distance education technologies: Best practices for K-12 settings. *IEEE Technology and Society Magazine, 2*(5), 36-40.

Greenfield, T. (Ed.), (1996). *Research methods: Guidance for postgraduates*. London: Arnold.

Grieve, R. (2013). Face-to-face or facebook: Can social connectedness be derived online? *Comput. Hum. Behav., 29*, 605‑609.

Gujjar, A. A., & Hafeez, M. R. (2008). Comparative study of student support services of AIOU and UKOU. *Turkish online Journal of Distance Education, Anodolu University, Eskisher, Turkey, 9*(1).

Gunawardena, C. N. (1988). *New communications technologies and distance education: A paradigm for the integration of video-based instruction*. Unpublished doctoral dissertation, University of Kansas.

Hall, Y. (1996). *Distance learning strategies examined*. New York, NY: MacMillan Publishing Company.

Harden, D. (1994). Theorising open and distance education. *Open Learning, 9*(2), 3-13.

Harry, S. (1992). *Studying learning: Improved teaching.* London: Kogan Page.

Haub, C., & Gribble, J. (2011). The world at 7 billion. *Population Reference Bureau,* 66(2), 16-36.

Hausmann, R., Tyson, L., & Zahidi, S. (2009). *The global gender gap report.* A report published by the World Economic Forum, Geneva, Switzerland. Retrieved from http://www.weforum.org/pdf/gendergap/report2009.pdf

Hawes, L. C., & Trux, H. R. (1974). *Student participation in the university decision making*. Retrieved from http://www.ascilite.org.au/ajet/ajet15/graham.html.

Hellman, D. C. (2003). Learner-interface integration in distance education: An extension of contemporary models and strategies for practitioners. *The American Journal of Distance Education, 17*(2), 30-42.

Henri, F., & Rigault, C. (1996). Collaborative distance education and computer conferencing. In T. Liao, (Ed.), *Advanced educational technology: Research issues and future potential* (pp. 45-76). Berlin: Springer-Verlag.

Herzberg, F. (1975). One more time: How to you motivate employees? In R. M. Steers & L. W. Porter (Eds.), *Motivation and work behaviour*. New York: McGraw-Hill.

Hocking, C. (2008). The *contributing factors to student absenteeism/truancy and the effectiveness of social services and interventions*. Social Work Student Papers. Retrieved from http://digitalcommons.providence.edu/cgi/viewcontent.cgi?article=1017&context=socialwrk_students.

Hodgson, V. E. (1986). The inter-relationship between support and learning materials. *Programmed Learning and Educational Technology, 23*(1), 56-61.

Holden, G. (1990). *Motivating tutors*. A paper presented at the AECS Conference, Glasgow, Epistolodidaktika.

Holmberg, B. (1977). *Distance education: A survey and bibliography*. New

York, NY: Nichols. Publishing Company.

Holmberg, B. (1990). Looking at distance education through an educational technologist's eyes. *The America Journal of Distance Education, 4*(1), 53-67.

Holmberg, B. (1993). *Key issues in distance education: An academic viewpoint*. London: Routledge.

Holmberg, B. (1995). *Theory and practice of distance education.* (2nd ed.) London: Routledge.

Holmberg, B. (1995). *Theory and practice of distance education.* London: Routledge.

Holmberg, B. (2001). *Distance education in essence*. Oldenburg: Bibliotheks.

Holmberg, B. (2002). *Theoretical foundations of distance education.* London: Routledge.

Holmberg, B. (2004). *Growth and structure of distance education*. London: Croom Helm.

Horton, W. (1994). *How we communicate. Paper presented at the meeting of the Rocky Mountain Chapter of the Society for Technical Communication.* Denver, Co.

Huesmann, L.R. (1994). *Aggressive behavior current perspectives.* New York and London: Plenuim press

Hunte, S. (2010). *Profile of UWI distance education learners: The implications for online curriculum development, Teaching and Learning at the University.* Barbados: The University of the West Indies Open Campus.

IEDE (2011). *Statistics of Students*. University of Education, Winneba.

Ikerionwu, J.C. (2000). Importance of aids and resources in classroom teaching. In A.M. Oyeneyin (Ed.), *Perspective of classroom teaching.* Abuja: Martmonic Investment Ltd.

Ingirige, B., & Goulding, J. (2009). Maximising Social Interactions and Effectiveness within. In T. Evans & D. Murphy (Eds.), *Research in distance education* vol 3 (pp. 78-90). Geelong, Victoria, Australia: Deakin University Press.

Institute for Educational Development and Extension (IEDE). (2007). *BED degree in basic education by distance, students' handbook*. Winneba: IEDE.

International Training and Education Center on HIV (I-TECH) (2009). *Tanzania distance learning assessment: Assessing the use of distance learning to train health care workers in Tanzania*. University of Washington, Seattle.

Isola, O.M. (2010) *Effects of standardized and improvised instructional materials students' academic achievements in secondary school physics*. M. Ed Thesis, University of Ibadan, Ibadan.

Jackman, D. (1994). Alternative instructional models for IVN delivery (Vol. 1). Fargo: North Dakota State University. *Central Duplicating Journal of Higher Education, 4*(44), 661-679.

Jelfs, A., Richardson, J.T. E., & Price, L. (2009). Student and tutor perceptions of effective tutoring in distance education. *Distance Education, 30*(3), 419‑441.

Johan, M.L. (2004). Teacher learning in mathematics: Using student work to promote collective inquiry. *Journal of Mathematics Teacher Education, 7*, 203-235.

Johnson, S. G. (2003). *Virtual culture: Identity and communication in cybersociety*. London: Kogan Page.

Joshi, I. (1999). *Scenario of distance education in African countries: Case Studies.* Retrieved from http://www.orbicom.uquan.ca/infocus/columns/en/archies/1999aout.

Kamau, J.W., & Selepeng-Tau, O.S (1998). *Overview of the provision of distance education at the University of Botswana (UB)*. The University of Botswana.

Kangai, C., Rupande, G., & Rugonye, S. (2011). Students' perceptions on the quality and effectiveness of guidance and counselling services at the Zimbabwe Open University. *The African Symposium: An Online Journal of the African Educational Research Network, 11*(1), 335- 339.

Kanninen, E. (2009). *Learning styles in virtual learning environments*. Unpublished Master of Science Thesis, Tampere University of Technology.

Kassop, M. (2003). *Ten Ways Online Education Matches, or Surpasses, Face-to Face Learning.* The Technology Source Archives (May/June). Retrieved from http://technologysource.org/article/ten_ways_online_education_matc hes or_ surpasses face to face learning/.

Keegan, D. (1980). On defining distance education. *Distance Education, 1*(1), 13‑36.

Keegan, D. (1990). *Foundations of distance education*. London: Routledge.

Keegan, D. (1991). *Foundations of distance education*. (3rd ed.). London: Routledge.

Keegan, D. (1995). Recent contributions to the theory of distance education. *Open Learning, 10*(3), 10-15.

Keegan, D. (1996). *Foundations of Distance Education*. London: Routledge.

Keegan, D. (1996). Problems in defining the field of distance education. *The American Journal of Distance Education, 10*(2), 4-11.

Kim, W., & Shih, T.K (2003). Distance education: The status and challenges. *Journal of Object Technology, 2*(6), 35-43.

Kinnaman, D. (1995). The future of distance education. *American Journal of Distance Education, 9*(4), 6-11.

Kirby, A., & McElroy, B. (2003). The effect of attendance on grade for first year economics students in University College Cork. *The Economic and Social Review, 34*, 311-326.

Kishore, S. (1998). Student support and quality indicators in distance learning. *Indian Journal of Open Learning, 13*(2), 205-212.

Koomson, A. K. (1998). Distance education as a strategy for training teachers in Ghana: Problems and prospects. *Journal of the Institute of Education, 4*(1), 59-68.

Koomson, A. K., & Ahiatrogah, P. D. (2010). *The relationship between distance students' rating of tests used to assess them and their academic performance.* University of Cape Coast, Ghana.

Krishnan, C. (2012). Student support services in distance higher education in India: A critical appraisal. *International Journal of Research in Economics & Social Sciences, 2*(2), 459-472.

Kuboni, O., Thurab-Nkhosi, D., & Chen, T. (2002). *The expanded use of ICTs in UWIDEC: An analysis of readiness for on-line course delivery.* Paper presented at the International conference on problems and prospects of education in developing

countries, Bridgetown, Barbados. Retrieved from https://tojde.anadolu.edu.tr/tojde39/articles/article_4.htm

Kumar, R. (2005). *Research methodology: A step by step guide for beginners*, (2nd ed.). New Delhi, India: Sage Publication

Kwapong, O. A. T .F. (2007). Widening access to tertiary education for women in Ghana through distance education. *Turkish on line Journal of Distance Education, 8*(4), 1302-6481.

Kwapong, O. A. T. F. (2010). *Equitable access: Information and communication technology for open and distance learning.* Bloomington New: iUniverse, Inc.

LaMartina, D. (2012). *The future of distance learning*. Retrieved from http://edcetera.rafter.com/the-future-of-distance-learning-why- 77-of-universities-already-offer-online-courses/

Latif, E., & Miles, S. (2013) Class attendance and academic performance: A panel data analysis. *Economic Papers, 32*(4) 470-476.

Lea, S. J., & Farbus, L. (2000) Student support: Educational necessity or mawkish indulgence? *Psychology Teaching Review, 9*(1), 16-25.

Leady, D. P. (1989). *Practical research planning and design*. New York. Macmillan.

Lee, J. (2001). Instructional support for distance education and faculty motivation, commitment, satisfaction. *British Journal of Educational Technology, 32*, 153‑160. doi: 10.1111/1467-8535.00186.

Leedy, P. D., & Ormrod, J. E. (2005).*Practical research: Planning and design* (8thed.). Upper Saddle River: NJ, Merrill/Pearson.

Lentell, H. (2003). The importance of the tutor in open and distance learning. In A. Tait & R. Mill (Eds.) *Rethinking learner support in distance education*. London: Routledge/Falmer.

Lewis, R. (2002). *The hybridisation of conventional higher education*. Retrieved from http://www.irrodl.org/content/v2.2/lewis.pdf.

Likoko, S., Mutsotso, S., & Nasongo, J. (2013). The Adequacy of Instructional Materials and Physical Facilities and their Effects on Quality of Teacher Preparation in Emerging Private Primary Teacher Training Colleges in Bungoma County, Kenya. *International Journal of Science and Research (IJSR)*, *2*(1) 2319-7064.

Litto, M. (2002). A Multimedia Digital Library to Support Distance Learning in Brazil. In D. Taylor, (Ed.), *Issues, trends, and challenges in distance education: An international perspective.* A long essay submitted to the University of Arizona for the Bachelor degree in Public Administration.

Ljosa, E. (1993). Understanding distance education. In Keegan, D. (Ed.). *Theoretical principles of distance education*. London: Routledge.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*, 705-717.

Lorenzi, F., MacKeogh, K., & Fox, S. (2004). Preparing students for learning in an online world: an evaluation of the student passport to e-learning (SPEL) Model. *European Journal of Open, Distance and E-Learning, 8*(2), 8.

Lucia, M. D. (2005). *An evaluation of student support services in open and distance learning at the University of Namibia*. Namibia: University of Namibia.

Lynch, M. M. (2002). *The online educator: A guide to creating the virtual classroom.* London: Routledge.

Machin, S., & Pekkarinen, T. (2008). Global sex differences in test score variability. *Science, 322,* 1331‑1332.

Mactague, N. J. (2003). *Development of a model of academic learner support services for distance education programs for higher education*. Aurora State: Aurora University.

Magagula, C. M., & Nguenya, S. (2004). *Distance education in Sub-Sahara Africa.* Retrieved from http://www2.ncsu.edu.

Major, D. W. (2011). The art of the lecture. *Rutgers Magazine*. Retriever from http://magazine.rutgers.edu/features/fall-2011/the-art-of-thelecture

Marburger, D.R. (2001). Absenteeism and undergraduate exam performance. *Journal of Economic Education, 32*(2), 99-109.

Marger, M. (2004). *Ethnic policy, in Hawke worth, encyclopaedia of government and politics* (2nd ed.), London: Routledge.

Mark, M. S. (1991). Problems affecting evaluation of distance education in developing countries. *Research in Distance Education, 2*(3), 12-16.

Marrs, L. (1995). *An analysis of distance education and educational technology. Offices of Continuing Education and Information and Telecommunication Services*. Bellingham, Washington: Western Washington University.

Marrs, L. (1995). *An analysis of distance education and educational technology*. Washington: Western Washington University.

Masie, E. (2002). Blended Learning: the magic is in the mix. In A. Rossett, (Ed.), *The ASTD e-learning handbook.* New York: McGraw-Hill.

Mason, E.J., & Bramble, W.J. (1997). *Research in education*. Chicago: Brown & Benchmark.

Mason, R. (1994). *Using communications media in open and flexible learning*. London: Kogan Page.

Massingham, P., & Herrington, T. (2006). Does attendance matter? An examination of student attitudes, participation, performance and attendance. *Journal of University Teaching and Learning Practice, 3*, 82-103.

McEvoy, A., & Welker,R. (2000). Antisocial behaviour, academic failure, and school climate: A critical review. *Journal of emotional and behavioural disorders, 8*(3), 130-140.

McIsaac, M. S., & Gunawardena, C. L. (1996). Distance Education. In D. Jonassen, (Ed.), *Handbook of research for educational communications and technology* (pp.403-437). New York: Simon & Schuster Macmillan.

McIsaac, M. S., & Gunawardena, C.N. (1996). *Theory: Distance Education*. Retrieved from http://seamonkey.ed.asu.edu/mcisaac/dechapter/search2.htm

Mcmillan, W. (1997).*The effect of Computer-mediated discussion on Learning for the non-traditional high education student*. Unpublished Ph.D. dissertation submitted to the Graduate School of Wayne State University, Michigan.

Menchaca, M.P., & Bekele, T.A. (2008). *Learner and instructor identified success factors in distance education.* Hawaii: University of Hawaii, Honolulu.

Mensah, C. C. (2002). *Essential in human rights education*. Accra, Ghana: Chrismek Rights Foundation.

Mensah, J., & Owusu-Mensah, F. (2002). Towards a theory of independent learning and teaching. *Journal of Education, 5*(214), 661-679.

Mensah, R. K. (2009). *Thesis, human rights violation in basic schools in the Effutu Municipality.* Department of Social Studies Education, University of Education Winneba,

Mensah, S. K. E., & Owusu-Mensah, F. (2002). *Priorities and strategies for capacity building in tertiary distance education for human resources development in Ghana.* A final report prepared for the World Bank.

Mireku-Gyimah, P. B. (1998). *Distance education in the context of tertiary level education in Ghana universities*. Unpublished M.Phil thesis, Faculty of Education, University of Cape Coast, Cape Coast.

Mirtz, R. (2010). Spatial metaphors and distance learning library services: Why "where" makes a difference. *Journal of Library Administration, 50*(7), 857 - 866.

Molefi, F. (1998). *Context.* A paper presented at the distance education. Workshop for Setswana Part-Time Writers. DNFE.

Momoh, B. (2010). *Effects of Instruction Resources on the Academic Achievements of Secondary School Students in Ilorin Local Government of Kwara State.* Unpublished M.Ed Research Thesis.

Moore, M. G. (1973). Towards a theory of independent learning and teaching. *Journal of Higher Education, 44*, 661-679.

Moore, M. G. (1989). Three types of interaction. *American Journal of Distance Education, 3*(2), 1-7.

Moore, M. G. (1990). Recent contribution to distance education. *Open Learning, 5*(6), 21-30. DOI: 10.1080/0268051900050303.

Moore, M. G. (1993). Theory of transactional distance. In D. Keegan, (Ed.), *Theoretical principles of distance education*. New York: Routledge.

Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view.* Belmont, CA: Wadsworth.

Moore, M. G., & Thompson, M. K. (1999). *Studying learning: Improved teaching.* London: Kogan Page.

Moore, M. G., & Thompson, M. M. (1990). *The effects of distance learning: A summary of the literature*. ERIC Document Reproduction Service No. ED 330221.

Moore, M., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont: Wadsworth.

Morgan, C., & Morris, G. (1994). The student view of tutorial support: report of a survey of Open University Education students. *Open Learning, 9*(1), 22-33.

Mullendore, R. H., & Banahan, L. A. (2005). Designing orientation programs as found in Challenging and supporting the first-year student. In M. L. Upcraft, J. N. Gardner,

& B. O. Barefoot, (Eds.), *National resource center for the first-year experience and student in transition.* New York: John Wiley & Sons Inc.

Mullins, L. G. (2007). *Management and organisational behaviour.* (8th ed.). Edinburg Gate: Financial Times Pitman Publishing Imprint.

Murphy, K. L. (1991). *Socio-cultural context of interaction in Turkish distance learning: Implication for distance education teaching.* University of Oklahoma: Oklahoma Research Centre.

Musa, A. (2002). *The prospects and problems of providing distance education programme for professional teachers in the Wa District*. Unpublished M.Phil thesis, Faculty of Education, University of Cape Coast, Cape Coast.

Muston, M. (1974). Students' participation in higher education. In L. C. Hawes, & H. R. Trux, (Eds.), *Student participation in the university decision making*. Columbus, OH: Ohio State University Press

Mutie, E. K., & Ndambuki, P. (2004). *Guidance and Counseling for Schools and Colleges*. Nairobi, Kenya: Oxford University Press.

Navarro, P., & Shoemaker, J. (2000). Performance and perceptions odistance learners in cyberspace. *The American Journal of Distance Education, 14*(2), 15- 35.

Naylor, P., Cowie, H., & Stevenson, K. (1990). Using student and tutor perspectives in the development of open tutoring. *Open Learning, 5*(8), 9-18.

Neuman, W.L. (2000). *Social research methods: Qualitative and quantitative approaches.* Boston, MA: Allyn & Bacon Publishers.

New Zealand (2003). Methodological issues in the content analysis of computer conference transcripts. *International Journal of Artificial Intelligence in Education, 7*(12), 8-22.

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,* 133‐144.

Nonyongo, E. P., & Ngengebule, A. T. (1998). *Selected case studies*: *University of Botswana*. Lesotho Distance Teaching Centre, South Africa.

Notara M. (2001). Instruction in DL. In *proceedings of 1st Convention of Open and Distant Education.* Patras. Retrieved from http://www.eap.gr

Nsiah, G. K. B. (2011). Case studies in U. S. distance education: Implications for Ghana's under-served high schools. *Creative Education, 2*(4), 346-353.

Nsowah-Nuamah, N. N. N. (2005). *Basic statistics.* Accra, Ghana: ACADEC press.

Nunes, J. M., & Fowell, S. P (1996). Hypermedia as an experiential learning tool: a theoretical model. *Information Research, 2*(1), 245-256.

Nyberg, S. (1988). Yrkesläraresarbetsmotivasjon. In F. Herzberg, (Ed.), *One more time: How to you motivate employees*? New York, NY: McGraw-Hill.

Oaks, M. (1996). *Western cooperative for educational telecommunications, Washington State University.* Retrieved from http://www.wiche.educ/telecom/tech wasu.htm

Oblinger, D. G. (2000). *The nature and purpose of distance education*. University of North Carolina. Retrieved from http://ts.mivu.org/default.asp?show=article&id

Oduro, G. K. T. (2008). Coping with the challenging of quality basic education: The missing ingredient, In S. Amenumey (Ed.), *Challenges of education in Ghana in the 21st century*. Accra, Ghana: Woeli publishers.

Oduro, G.K.T. (2004) *Distributed leadership in action: A study of current practice in schools.* National College for School Leadership, Nottingham.

Ogbondah, L. (2008). An appraisal of instructional materials used to educate migrant fishermen's children in Rivers State, Nigeria. International *Journal of Scientific Research in Education, 1*(1), 13-25.

Ogina, T.A., & Mampane, S.T. (2013). Experiences of tutorial sessions as learning support for distance education students. *Progressio, 35*(1), 104-118.

Oliveria, A. (1998). Making distance education more efficient. *ICDE Bulletin, 4*(18), 18-20.

Olumorin, C. O., Yusuf, A., Ajidagba, U. A., & Jekayinfa, A. A. (2010). Development of Instructional materials from local resources for artbased courses. *Asian Journal of Information Technology, 9*(2), 107- 110. http://dx.doi.org/10.3923/ajit.2010.107.110

Omoregie, M. (1997). *Distance learning: An effective education delivery system*. Eric Document Reproduction Service, NO ED 418683.

Omotosho, A. O. Lateef, E. B., Amusa, O. I., & Bello, T. O. (2015). Information and communication technology adoption and use among students of a Nigerian University for distance learning in library philosophy and practice. *e-journal*.

Onyeozu, A. M. (2007). *Understanding community development*. Port Harcourt, Nigeria: Davidstones Publishers Ltd.

Open Polytecnic of New Zealand (2003). Problems affecting evaluation of distance education in developing countries. *Research in Distance Education, 2*(3), 12-16.

Osokoya, M.M. (2007). The practice of continuous Assessment in primary school. In A.E. Emeke, & C.V. Ase, (Eds.), *Evaluation in theory and practice* (141-154) Ibadan: Pen services.

Ossei-Anto, T. A. (2002). *Planning and implementing open distance learning systems.* A paper presented at African Distance Educators workshop on Planning and Management at Cape-Town, South Africa.

Osuala, E. C. (2001). *Introduction to research methodology.* Onitsha, Nigeria: Africa FEP publishers.

Owusu-Boateng, W., Essel, R., & Mensah, J. (2001). *Using DL to address the educational need of the Ghanaian basic school teachers.* Kumasi, Ghana: Institute of Distance Learning, KNUST.

Owusu-Mensah, F. (1998). *The provision of student support services in distance education in three different contexts: Implication for University College of Education, Winneba.* Unpublished MA dissertation, University of London, London.

Owusu-Mensah, F. (2006). *Learner support for university distance educating Ghana: A study of students' and providers' perception*. Unpublished doctoral thesis University of Nottingham.

Oyedun, G.U. (2007). Internet use in the library of Federal University of Technology, Minna: A case study. *Gateway Library Journal, 10*(1), 23-32.

Padmanabhan, Y. (2001). *Internal efficiency in primary education.* Retrieved from http//www.sterioso41188eci.htm

Pallof, R., & Pratt, k. (2000). *Making the transition: Helping teachers to reach on-line*. Eric Document Reproduction Service, NO ED 452806.

Panagiotis, A. (2010). Communication between tutors - students in DL; A case study of the Hellenic Open University (University of Crete). *European Journal of Open, Distance and E-Learning, 2,* 33-51.

Patall, E. A., Cooper, H., & Robinson, J. C. (2008). Parent involvement in homework: A research synthesis. *Review of Educational Research, 78*(4), 1039-1101.

Paul, R. (1990). *Open learning and open management: Leadership and integrity in distance education*. London: Kogan Page.

Perraton, H. (1988). A theory for distance education. In D. Sewart, D. Keegan, & B. Holmberg, (Eds.), *Distance education: International perspectives*, (pp. 34-45). New York: Routledge.

Perraton, H. (1991). *Training teachers at a distance.* London: Commonwealth Secretariat.

Perraton, H. (1992). The neglected resources in distance education. *The American Journal of Distance Education, 6*(3), 5-21.

Perraton, H. (1993). *Distance education for teacher training*. London: Routledge.

Perraton, H. (1998). *A theory for distance education*. New York: Routledge.

Perraton, H. (2000). Rethinking the research agenda. *International Review of Research in Open and Distance Learning, 1*(1), 21-29.

Perraton, H., & Creed, C. (2000). *Applying new technologies and costeffective delivery systems in basic education.* International Research Foundation for Open Learning. Retrieved from http://www.unesco.org/education/wef/endocs/ findings/technofinal.pdf

Peters, O. (1998). *Learning and Teaching in Distance Education.* London: Kogan Page.

Peters, O., & Keegan, D. (1994). *Otto Peters on distance education: The industrialization of teaching and learning.* London: Routledge.

Petrie K. (2014). The relationship between school climate and student bullying. *TEACH J. Christ. Educ. 8,* 26‑35.

Phelps, R. H. (1991). Effectiveness and costs of distance education using computer-mediated communication. *American Journal of Distance Education, 5*(3), 7-9.

Phelps, R. H. (1999). Is anyone making money on distance education? *The Chronicle of Higher Education, 8*(10), 41-47.

Plant, E. A., Ericsson, K. A., Hill, L., & Asberg, K. (2005). Why study time does not predict grade point average across college students: Implications of deliberate practice for academic performance. *Contemporary Educational Psychology, 30*, 96-116.

Polytechnic of Namibia (2009). *Manual for face-to-face tutors: Tutoring distance education students.* Windhoek, Namibia's University of Science and Technology.

Porter, D. (1994). New directions in distance learning. *Journal of Distance Education, 7*(4), 8-12.

Poulin, R. (2010). *Statement on distance education.* American Association of University Professors. Retrieved from www.aaup.org/govrel/distlern/spcdistn.htm

Prawat, R., & Floden, R. E. (1994). Philosophical perspectives on constructivist views of learning. *Educational Psychology, 29*(1), 33- 48.

Prideaux, A. (1989). Support for open and distance learners. In A. Tait (Ed.), *Proceedings from interaction and independence: Student support in distance education*. Downing College, Cambridge, England. Retrieved from https://tojde.anadolu.edu.tr/tojde16/articles/s_Prideaux.htm

Prymus, M. S. (2004). Distance education opportunities for women. *International Council for Distance Education, 22*(1), 7-29.

Purcell, P. (2007). *Engineering student attendance at lectures: effect on examination performance*. Proceedings of the International Conference on Engineering and Education, Coimbra, Portugal.

Quaigrain, K. A. (1994). An assessment of training needs in the use of distance education. *International Journal of Telecommunications, 1*(1), 5-22.

Quaigrain, K. A. (2001). Expanding teacher education through distance in Ghana: Prospects and challenges. *Journal of Educational Development, 6*(1), 75-82.

Quality Assurance Agency (QAA). (1999). *Distance learning guidelines*. Retrieved from http://www.qaa.ac.uk

Qureshi, E., Morton, L. L., & Antos, Z. (2002). An interesting profile: University students who take distance education courses show weaker motivation than on campus students. *Online Journal of Distance Learning Administration, V(*IV), 15-19.

Rana, R. (2000). *Counselling skills*. London: Macmillan Press Ltd.

Rashid, M. (1998). *Student support services in distance education*. Islamabad: National Book Foundation.

Ravhudzuho, C. M. (2000). *NADEOSA conference papers*. Retrieved from http://www.2.ncsu.edu

Ready, D.D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development: The differential effects of school exposure. *Sociology of Education, 83,* 271-286.

Reeve, J., & Halusic, M. (2009). How K-12 teachers can put self determination theory principles into practice. *Theory and Research in Education, 7,*145‑154.

Reeve, J., Deci, E. L., & Ryan, R. M. (2004). Self-determination theory: A dialectical framework for understanding the socio-cultural influences on student motivation. *Journal of Educational Psychology, 98,* 209‑ 218.

Rekkedal, T. (1994). *Distance education in Norway.* New York: Englewood Libraries.

Robson, C. (1996). *Real World Research: A source for social scientists and practitioners researcher.* New York, NY: Blackwell.

Rose, A. (1995). Expanding the potential of distance education. *Adults Learning, 7*(1) 5-8.

Rose, R. L., Hall, C. W., Bolen, L. M., & Webster, R. E. (2007). Locus of control and college students' approaches to learning. *Psychological Reports, 79*, 163-171.

Rowntree, D. (1992). *Exploring open and distance learning.* London: Kogan page.

Rowntree, D. (1999). *Ethical considerations in distance education.* London: Kogan Page.

Rumble, G. (1986). *The Planning and management of distance education*. London: Croom Helm.

Rumble, G. (1992). *The management of distance learning systems*. Paris: IIEP.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and wellbeing. *American Psychologist, 55,* 68‑78.

Saba, F. (1996). *Introduction to distance education*. Retrieved from http://www.distance-educator.com/intro.htm

SAIDE (1996). *Staff development needs of distance education and computer-based education.* London: Croom Helm.

Saint, W. (1999). *Tertiary distance education and technology in Sub- Saharan Africa.* Washington D. C: World Bank, Working Group on Higher Education, Association for the Development of Education in Africa (ADEA).

Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). London: SAGE.

Sam-Tagoe, J. (2000). *Teachers' perception and needs of distance education programming in Ghana.* Unpublished M.Phil thesis, Faculty of Education, University of Cape Coast, Cape Coast.

Sarantakos, S. (2005). *Social research*. (3rd ed.). New York, NY: Palgrave Macmillan.

Saunders, M., Lewis, N., & Thornhill, K. (2012). *Choosing research participants: The practice of qualitative organisation research*. Core methods and current challenges. London: Sage.

Savoye, C. (2002). Distance learning with a twist real campuses. *Christian Science Monitor, 24*(1), 15-21.

Scardamalia, M., & Bereiter, C. (1994). Computer support for knowledgebuilding communities. *Journal of the Learning of Sciences, 3*(3), 265-283.

Schlosser, C. A., & Anderson, M. L. (1993). *Distance education: A review of the literature*. Washington D.C. Association for Educational Communications and Technology. Eric Document Production Service, NO ED 382159.

Schlosser, C. A., & Anderson, M. L. (1994). *Distance education: Review of the Literature*. Ames, IA: Research Institute for Studies in Education, Iowa State University.

Schlosser, L.A., & Simonson, M. (2002). *Distance education: Definition and glossary of terms.* Definitions and terminology committee, association for educational communications technology. Retrieved from http://www.aect.org/intranet/publications/disted/disted.asp

Schlosser, L.A., & Simonson, M. (2009). *Distance education: Definition and Glossary of Terms* (3rd ed.). Charlotte, NC: IAP.

Schnorr, J. M. (1999). Developing and using technology for course delivery. *Teacher education and special education, 22*(2), 114-122.

Schwier, R. A., & Misanchuk, E. (1993). *Interactive multimedia instruction*. London: Englewood Cliffs.

Seamans, M. C. (1990). *New perspectives on user-centred design.* Presentation at the Interchange Technical Writing Conference. Lowell: University of Lowell.

Sewart, D. (1993). Student support system in distance education. *Open Learning, 8*(8), 3-12.

Sewart, D., Keegan, D., & Holmberg, B. (1988). *Distance education: International perspectives.* London: Routledge.

Shale, D. (1990). *The distance teaching universities.* London: Croom Hell.

Sheets, L. (1992). Issues in distance learning. *International Journal of Educational Telecommunications, 1*(4), 337-365.

Sheets, M. (1992). Characteristics of adult education students and factors which determine course completion: A review. *New Horizons in Adult Education, 6*(1), 89-95.

Simpson, J. A., & Weiner E. S. C. (1989). *The Oxford English dictionary* (2nd ed.). Oxford: Clarendon Press.

Simpson, O. (2000). *Supporting students in open and distance learning.* London: Kogan Page.

Smail, N., & Othman, A. (2006). Comparing university academic performances of HSC students at the three art-based faculties. *International Education Journal, 7*(5), 668-675.

Smith, F. (2004). It's not all about grades: Accounting for gendered degree results in Geography at Brunel University. *Journal of Geography in Higher Education, 28*(2), 167-178.

Song, L., & McNary, S. W. (2011). Understanding Students' Online Interaction: Analysis of Discussion Board Postings. *Journal of Interactive Online Learning, 10*(1), 1-14.

Stanca, L. (2006). The effects of attendance on academic performance: Panel data evidence from introductory microeconomics, forthcoming. *Journal of Economic Education, 5*(6), 25-35.

Steve, U. (2000). *Measuring academic programme performance and accountability*. Florida, FL: Macmillan

Stevenson, K., & Sander, P. (1998). How do Open University students expect to be taught at tutorials? *Open Learning, 13*(5), 42-46.

Stewart, R. L. (2014). *A meta-analytical synthesis of studies on the effect that building conditions, building age, artificial lighting, and natural lighting in schools has on student learning and behavior.* Spokane, WA: Unpublished doctoral dissertation, George Fox University

Sweet, M. (1996). Designing learner feedback in distance education. *The American Journal of Distance Education, 10*(5), 24-40.

Tait, A. (1995). *Student support in open and distance education*. London: Routledge.

Tait, A. (2000). Planning student support for open and distance learning. *Open Learning, 15*(3), 287-299.

Talab, R. S., & Newhouse, B. (1993). *Self-efficacy, performance variables and distance learning facilitator technology adoption: Support for the needs hierarchy.* New Orleans: Research and Theory Division.

Taylor, D. (2006). *Issues, trends, and challenges in distance education: An international perspective.* A long essay submitted to the University of Arizona for the Bachelor degree in Public Administration.

Taylor, J. (2001). *Distance education technologies*. New millennium distance education. Retrieved from http://www.users/taylor/publicationspresentations/2001 GNOV.doc.2004.

Taylor, J. (2002). *Distance education technologies.* Automating e-learning: The higher education revolution. Retrieved from http://www.backkingaustraliasfuture.gov.

Teaster, P., & Blieszner, R. (1999). Promises and pitfalls of the interactive television approach to teaching adult development and aging. *Educational Gerontology, 25*(8), 741-754.

Tesfaye, A., (2002). *Political power and ethnic federalism: The struggle for democracy in Ethiopia*. Lanham, New York, Oxford: University Press of America.

Thatcher, A., Fridjhon, P., & Cockcroft, K. (2007). The relationship between lecture attendance and academic performance in an undergraduate psychology class. *South African Journal of Psychology*, *37*(3), 656‑ 660. The Constitution of the Republic of Ghana. (1992). *Tema*. Accra, Ghana: Ghana Publishing Corporation.

The World Bank. (2005). *The economic advancement of women in Jordan: A country gender assessment, social and economic development group Middle East and North Africa Region (MENA).* Retrieved from http://siteresources.worldbank.org/INTMNAREGTOPGENDER/Res ources/JordanCGA2009.pdf

Theodore, E. W. Jr. (1995). *Academic achievement in the home school*. New York, NY: Gazelle Publication.

Thompson, M. (1999). *Distance learners in higher education*. Retrieved from http://www.wpi.edu/Academics/ATC/Collaboratory/Teaching/students.html

Thorpe, M. (2002). Rethinking learner support: The challenge of collaborative online learning. *Open Learning, 17*(2), 105-119.

Threlkeld, R., & Brezoska, K. (1994). *Research in distance education*. Englewood Cliffs: Educational Technology Publications.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. Second Edition. University of Chicago Press.

Tony, S (1999, April 25). The test under stress. *The New York Times*, 30.

Tucker, S. Y. (2003). A portrait of distance learners in higher education. *Turkish Journal of Distance Education - TOJDE, 4*(3), 1302-6488.

U. S. Congress. (1989). *An assessment of training needs in the use of distance education for instruction.* Washington DC: US Government Printing Office.

Ukpo, E. O. (2006). Support for distance learners in a Nigerian distance education programme. *Open Learning: The Journal of Open and Distance Learning, 21*(3), 253 - 261.

UN. (1948). *Universal Declaration of Human Rights*. General Assembly Resolution 217.

UNDP. (1990). *Human Development Report.* United Nations. Retrieved from http://hdr.undp.org/en/reports/

UNESCO. (2001). *Teacher education through distance learning: Technology, curriculum, evaluation, cost.* Paris: Education Sector, Higher Education Division, Teacher Education Sector.

UNESCO. (2002). *Strategic Framework for Sub-Saharan Africa, in the area of teacher and secondary education through open and distance learning*. Paris: Education Sector, Higher Education Division, Teacher Education Sector.

UNESCO. U. S. Congress Office of Technology Assessment. (1998). *Power on! New tools for teaching learning.* Washington DC: US Government Printing Office. University of Education, Winneba. (2008). *Undergraduate students' handbook on rules and regulations.* Accra, Ghana: Asante & Hittscher Printing Press Ltd.

Usun, S. (2004). *Learner support services in distance education system*. Canakkale-Turkey: Canakkale Onsekiz Mart University.

Uyagu, B.G. (2009). *Effects of instructional materials usage and teachers' quality on students' performance in science senior secondary schools in Zaria, Kaduna State*. Unpublished M.Ed. thesis, A.B.U. Zaria - Nigeria.

Van Zyl, J.M., & Spamer, E.J. (2013). Contact class attendance: Imperative for academic success of ODL students? *Progressio, 35*(1), 225-250.

Vander V. K. (1994). *Viewpoint: The power and paradox of distance education.* The on-line chronicle of distance education and communication. Retrieved from http://usenetnewsgroupalt.

Verduin, J. R., & Clark, T. A. (1991). Distance education: The foundations of effective practice. *Educational Psychology, 29*(1), 33-48.

Wainer, H., & Steinberg, L. S. (1992). Sex differences in performance on the mathematics section of the scholastic aptitude test: A bidirectional validity study. *Harvard Educational Review*, *62*, 323-336.

Weber, J. (1996). *The compressed video experience.* Paper presented at summer conference of the association of small computer users. North Myrtle Beach, South Carolina. Eric Document Production Service, NO ED 40583.

Willis, B. (1993). *Strategies for teaching at a distance*. ERIC Document Reproduction Service, NO. ED 351008.

Wolfe, L. (1994). *The digital co-op: Trends in the virtual community.* Paper presented at the writers technology and equipment. Vancouver, B. C.: The University of British Columbia Continuing Studies.

Wood, H. (1996). *Designing study materials for distance students.* Retrieved from http://www.csu.educ.an/division/oli-rd/occparp/7/design.htm.

Wright, S. J. (1991). *Research on selected aspects of learner support in distance education programming: A review of selected papers* (part 1). The Second American Symposium on Research in Distance Education, Pennsylvania State University. (pp 59-71).

Zawacki-Richter, O. (2004). Support in online studium. online faculty support and education innovation: A case study. *European Journal of Open and Distance Learning (EURODL), 1*(5), 25-40.

Zhang, A. (2003). *Transactional distance in web-based college learning environments: Towards measurement and theory construction* (Doctoral thesis). Richmond, VA: Commonwealth University. UMI No: AAT 3082019

Zhang, P. (1998). A case study on technology use in distance learning. Journal of Research on Computing in Education, 30(4), 398-419.

APPENDIX A

RESPONDENTS'QUESTIONNAIRE

Dear Student,

I am conducting research which aims at finding out the quality of institutional support services on academic achievements of students in distance learning environments of the Institute of Distance and Continues Learning, University for Development Studies. You are hereby invited to participate in this important study. The information provided by you will be treated with the strictest confidentiality and used purely for academic purposes. Please, your participation in this study is voluntary. Thank you.

SECTION A: BACKGROUND INFORMATION OF RESPONDENTS