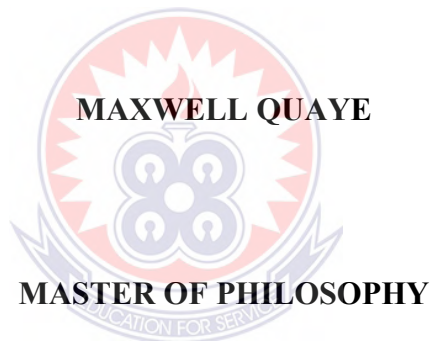**UNIVERSITY OF EDUCATION, WINNEBA**

CONTINUOUS PROFESSIONAL DEVELOPMENT CHALLENGES OF TEACHERS' IN CHOGGU AND BISHOP JHS AND THEIR EFFECT ON STUDENTS' ACADEMIC PERFORMANCE IN THE SAGNARIGU DISTRICT

MAXWELL QUAYE

MASTER OF PHILOSOPHY

2022

UNIVERSITY OF EDUCATION, WINNEBA

CONTINUOUS PROFESSIONAL DEVELOPMENT CHALLENGES OF TEACHERS' IN CHOGGU AND BISHOP JHS AND THEIR EFFECT ON STUDENT'S ACADEMIC PERFORMANCE IN THE SAGNARIGU DISTRICT

MAXWELL QUAYE
200019219

A thesis in the Department of Educational Administration and Management, Faculty of Educational Studies, submitted to the School of Graduate Studies in partial fulfillment of the requirements for the award of the degree of Master of Philosophy (Educational Administration and Management) in the University of Education, Winneba

APRIL, 2022

DECLARATION

Student's Declaration

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

Signature………………………………………

Date…………………………………………

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines for supervision of the thesis as laid down by the University of Education, Winneba.

Name: Professor Dominic Kwaku Danso Mensah.

Signature………………………………………

Date…………………………………………

DEDICATION

To my mother, Henrietta Sarpong for her patience, understanding and care when it
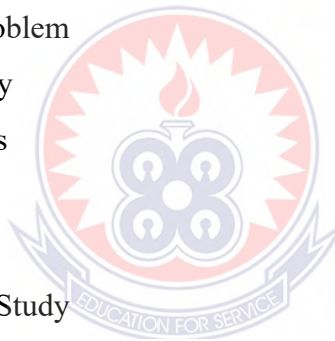mattered most.

ACKNOWLEDGEMENTS

Not unto us, O Lord not unto us, but to your name give glory, for the sake of your steadfast love and your faithfulness. I thank the almighty God for giving me strength, knowledge, and guidance to undertake this study. I am also grateful to my supervisor, Professor Dominic Kwaku Danso Mensah who guided and directed me during the entire period of writing this thesis. Further, thanks also go to my lecturers; Professor Hinneh Kusi, Dr. Kwame Odei Tettey, and Dr. Judith Bampo from the Department of Educational Administration and Management as well as other lecturers whose names have not been mentioned here. God bless you all.

I cannot forget the assistance offered me by Emmanuel Amesewu, CEO of First-Class Diagnostic center, Tamale and David Waliwu Monte CEO of Kings Diagnostic Center, Tamale as well as Mr. Yahaya, the Administrative Assistance Officer from Tamale Regional Education Office for providing me with the necessary data to facilitate the execution of this project. Besides, I am equally grateful to all heads of the two public schools, especially, teachers who assisted me in data collection together with JHS students who participated in this exercise.

Finally, my thanks go to my wonderful mother, Henrietta Sarpong, my sisters, Bernice Quaye and Dorcas Sarpong, my brother, Jonathan Quaye as well as all my siblings for their support during the period of this study.

TABLE OF CONTENTS

Contents   **Page**

LIST OF TABLES

LIST OF FIGURES

x

GLOSSARY

BECE	Basic Education Certificate Examination
CALID	Center for Active Learning and Development
CPD	Continuous Professional Development
GES	Ghana Education Service
GEQAF	General Education Quality Analysis Framework
ICT	Information and Communication Technology
INSET	In-service Training
J.H.S	Junior High School
LDC	Least Developed Countries
MMDAs	Metropolitan Municipal and District Assemblies
NAB	National Accreditation Board
NCTE	National Council on Tertiary Education
NDPCI	National Professional Development Centre on Inclusion
NTC	National Teaching Council
OLS	Ordinary Least Square
PRESET	Pre-service Training
SPSS	Statistical Package for the Social Sciences
TLM	Teaching and Learning Materials
TPD	Teachers' Professional Development
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

The main purpose of the study was to investigate the influence of Continuous Professional Development of teachers on the academic performance of students in the Sagnarigu District and establish the relationship between them. The descriptive survey design was adopted for the study, describe and interpret teacher's perceptions on continuous professional development. School performance test from the end of term examination were used to gather data for the survey from accessible population of all Junior High Three, one and two pupils in the district. Interview was also used to gather information from the head teachers of the respondents. Stratified random sampling technique was used to select 336 respondents (students), 16 teachers and four 4 head teachers. Statistical Package for Social Sciences (S.P.S.S.) software was used to analyze the data gathered to determine the correlation coefficient. Findings from the study indicated that teachers are satisfied with the way CPD programmes are organized, but they disagree with the satisfaction of its organization. Teachers disagreed that there is mechanism in place to supervise staff development activities. Teachers strongly agreed that during breaks/vacation is the best times to participate in CPD activities. For training materials to be made available to teachers to use after employers' provision support for staff development, teachers indicated that these materials are not being made available to them. There was a moderate significant positive relationship between teacher's academic qualifications on students' academic performance, thus teachers with degree qualification have students with higher scores than teachers with diploma certificates. It is recommended that teachers, parents, policy makers and guidance and counselling coordinators should ensure that appropriate measures should be put in place to ensure that the organization of CPD is done with teachers inclusive and better mechanism should be put in place to ensure teachers transfer what they are trained for into the classroom for better outcome of result

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Teachers' professional development is a concern for the Ghana Education Service, which acknowledges the need for teachers with up-to-date skills that illustrate the country's educational system's future needs, especially at all levels. That is why, the Ghana Education Service includes additional support for teacher professional development programs focused at enhancing their effectiveness. Teachers require new knowledge and skills in order to meet new challenges and reforms in education, so school-based professional development programs are becoming increasingly valuable.

Albert Einstein said, "Education is not the learning of fact, but the training of the mind to think." Therefore, educators must be ready to learn new and better skills on a daily basis in order to do this. Farrant (1980) defines education as "the complete continuum of human learning through which information is imparted, faculties are learned, and skills are acquired." Education, in its most technical definition, is the formal process by which society transfers its cultural history and accumulated information, values, and skills to future generations through schools, colleges, universities, and other organizations. Education is seen as a right which exposes the individual to social advancement and quality education can build significant analytical and social skills which enable youth to make good choices and pursue responsible life styles (Coalition, 2013). In today's educational world, teachers are being encouraged to participate in a variety of activities which promote lifelong learning thus, teachers" ability to teach the 21st century skills needed by students, will depend on a more effective professional development which is sustainable, job-embedded and collaborative (Darling-Hammond, 2009). Luft and Hewson (2014) onsider

professional development to be an ongoing learning experience that begins and ends with a teacher's career. Because of the nature of the teaching profession, all instructors should participate in ongoing professional development throughout their careers. (Essel, Badu, Owusu Boateng and Saah, 2009).

According to Guskey (2000), in the absence of professional development, significant advancement in education is uncommon. As a result, ongoing professional learning among head teachers and teachers has become vital to the school's advancement. Bartlett, Burton and Peim (2001, P. 3) assert that the concept "education" in its broadest sense "is normally thought to be about acquiring and being able to use knowledge, and developing skills and understanding-cognitive capabilities". According to Acheampong (2006), education enables individuals to develop and fulfill aspirations aimed at achieving economic progress, by developing their abilities and talents; It also helps students improve their general thinking abilities. It allows beliefs to shift gradually and increases receptivity to new thoughts and attitudes toward society. Women, rural people, the urban poor, disenfranchised ethnic minorities, and the millions of students who are not in school but working all benefit from basic education. (UNESCO, 2007). The educational review committee of 2002 in Ghana chaired by Professor Jophus Anamuah Mensah, a former Vice Chancellor of the University of Education Winneba, Ghana's new basic education system, which includes two years of kindergarten, six years of primary school, and three years of junior high school, was examined. (MoESS, 2008). Basic education therefore provides the chance for students to continue their education at higher levels, and for those who are unable to do so, it allows them to gain work-related skills (Oduro, 2000).

"Education is the pivot around which nation development revolves," Onwumere (2006) believes. This is a true driver of socio-political, economic, and cultural progress. As a result, teachers must be continuously trained in order to pursue and achieve the national objectives. Teachers can then choose to play an active role in Continuous Professional Development programs, along with education conferences or seminars, in order to increase their abilities and understanding at work which includes courses/workshops, workshops, participation in a teacher network, individual or collaborative research, mentoring and/or peer observation and coaching, in-service training, observation visits to other schools, among other things. This is based on the fact that they have already earned academic credentials at this level and it is being recruited by numerous Junior High Schools around the country.0206312510

According to Tamakloe, Amedahe, and Atta (2005), teaching is directing knowledge towards the learner. To Kochhar (2004), teaching is not a mechanical process but a rather intricate, exacting and challenging job. Thus, for teachers to teach effectively and efficiently to attain better academic achievement of students there must be appropriate professional development programmes to enhance teachers' delivery in class. Continuous Professional Development (CPD), on the other hand, is the process by which teachers rely on their skills, keep them up to date, and continue to develop them. Timperley et al. (2007) defines Professional development as a comprehensive, ongoing and intensive approach to improving teachers' and head teachers' effectiveness in improving the academic performance of students. Professional development enables teachers to practice in a standardized and realistic manner, strengthening their overall experience and ability. Its own objective is to keep one up to speed on current trends while also assisting in the development of new talents in order to grow in the industry. It also enables them to assess the expertise and abilities

3

they need to learn in a short period of time, allowing them to identify the transformation. Continuing professional development (CPD) is the process of a person's knowledge, skills, and competence being maintained and improved throughout the course of his or her working life, as well as the pursuit of information. (Institute of Continuing Professional Development, undated).

Stoll, Bolam, McMahon, Wallace and Thomas (2006) reviewed research on teachers' learning communities and concluded that five characteristics contribute to the most effective professional learning in communities for teachers: i) shared values and vision; ii) collective responsibility; iii) reflective professional inquiry; iv) collaboration; and v) both group and individual learning. Teachers may convey their expertise more deeply in these situations.

Tam (2015) also revealed that a school-based teacher learning community strategy can assist instructors modify their pedagogies as well as their educational ideals. To accomplish this, professionals must be influenced to constantly develop larger and more innovative skills, Teachers have the responsibility of producing students who seek information and skills on their own throughout their lives.

Teachers are expected to participate in a wide range of objective of promoting continuous improvement in today's educational setting. According to Noyce (2006, p.36), "First and foremost, we must realize that the purpose of professional development is to help students learn more." That is why, as part of recent legislation, funding for professional development has been made available in order to encourage improvements in teaching techniques and increase student academic attainment (Lawless & Pellegrino, 2007). Professional development covers a wide range of topics and addresses a wide range of issues that can arise in a school. Whatever form

of career training instructors are interested in, developing an intellectual capacity for the program's efficacy is vital. With the multitude of professional development topics and resources available, it is essential to ascertain what to select and therefore would be effective. The need of evidence-based, high-quality teacher professional development is emphasized in current school policy and recommendations; nevertheless, there is insufficient empirical research to establish what factors make instructors more successful (Borko, 2004; Garet, Porter, Desimone, Birman, & Yoon, 2001). As a result, it is necessary to investigate the impact of teacher CPD on student academic achievement.

Quality and competency are instilled in our educational system through promoting teacher professional development, which results in individuals being more productive in their fields of expertise and, as a result, contributes to the system's growth as well as students' academic achievement. Teachers' education and training are crucial in helping individuals adjust to a fast changing socioeconomic and cultural environment.

Any country's socio-economic development is inextricably linked to student academic performance in schools. Academic performance of students is crucial in producing high-quality graduates who will one day serve as leaders and human capital in the country's economic and social transformation (Mushtaq & Khan, 2012). The term "performance" can refer to the tendency of how someone does a job that is judged by an awaiting reward. As a result, schools need highly trained teachers to assist their students in completing their programs of study satisfactorily. For many educators, parents, and national governments, academic performance (learning attainment) of pupils/students in schools remains a major goal.

A stable foundation of students in primary schools will support their academic achievement as they progress to the highest of the educational ladder. All these numerous advantages cannot be achieved in Ghana if a child fails to perform creditably in national examinations such as Basic Education Certificate Examination (BECE) to ensure admission into the second cycle institution.

Continuous Professional development provides an avenue to help teachers stay informed on mandated expectations for students, develop new teaching strategies, increase knowledge on the technology available for teaching, and learn to teach an increasingly diverse population (Lawless & Pellegrino, 2007). According to Ansel et al, (2003), professional development opportunities for teachers remain inadequate. That is why (Lawless & Pellegrino, 2007) has associated it to an insufficient number of professional development hours. Despite an improvement in the number of career learning opportunities in recent years, it also falls short of addressing existing teaching needs. This is why the majority of teacher career development plans collapsed for a variety of reasons, one of which being the use of a "one-shot strategy', e.g. one-day workshop. Teacher's depending on one way strategy can be less effective and might have negative consequences on students' academic performance. This approach avoided the idea that learning and career development are lifelong activities that accumulate and improve on past knowledge, expertise, and knowledge. For this reason, it is not possible to reap positive results immediately after a certain course or program is emitted out for teachers.

According to Markley (2004), researchers took student learning results for granted, believing that "effective instructional approaches can automatically produce good student achievement" (p.2). Teachers have been viewed as executors who must deal

6

with policymakers' wills, which is a source of anxiety. Teachers are rarely given the chance to be self-sufficient professionals who make decisions for themselves and their learners. Another important issue that arises in this setting is the instrument that has been utilized to assess student success. In fact, one would be curious to learn how accurate, dependable, and simple these metrics are, as well as how professional development affects student academic achievement.

As a result, the Ghana Education Service (GES) has provided a system for the implementation of basic education in-service education and training (INSET) policy since 2005. Due to this the government of Ghana released an amount of three hundred and fifty-four million (GH354.000000) for the payment of Continuous Professional Development Allowance (CPDA) for teachers under the Ghana Education Service (GES) in November, 2020. This is why students' academic achievements in every discipline manifest in different test scores as they progress from one grade level to another in the school context. The goal is to set up an entrenched framework for the continuous professional growth of teachers in basic schools. Despite the Ghanaian government's attempts to enhance teaching and learning in public basic schools, it appears that these interventions are not generating the anticipated results, as pupils' performance in the Sagnarigu District district basic education certificate tests (BECE) continues to drop (CALID, 2018). While the primary school enrolment, primary school completion, and the reading and numeracy rate among school children are frequently used to gauge the sustainable development goal (Vegas & Petrow, 2008). A substantial link exists between student academic progress and teacher leadership (Ingersoll, Sirinides, and Dougherty, 2018).

For instance, between 2013 and 2017, the District scored 49.47 percent, 45.25 percent, 41.07 percent, 42.45 percent and 45.20 percent respectively at the BECE. Sadly, a report by CALID, a Non-governmental Organization (NGO), indicates that, the district is poorly rated in terms of academic performance among other MMDAs in the Northern Region and worst at the national level.
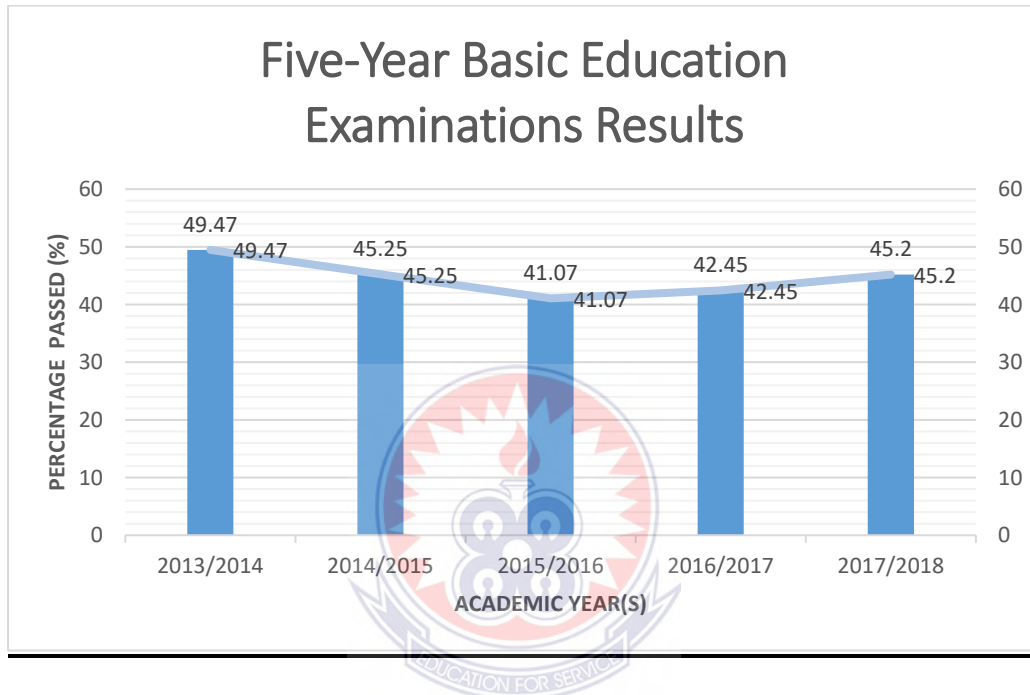
Source: CALID (2018)

Figure 1.1: Results of Students in BECE from 2014 to 2018 in the Sagnarigu District in the Northern Region Ghana.

1.2 Statement of the problem

"Excellent teaching does not occur by accident." Good teaching is the product of study, deliberation, experience, and dedication. An instructor will never know so much about how a student thinks, what learning barriers exist, and how the teacher's teaching can make the student learn more. Teachers can only acquire such expertise through professional development. If students are high achievers, poor achievers, or average achievers, they can learn better if their teachers participate in high-quality professional development on a regular basis" (Mizell 2010, p.18; Brown and Aydeniz

8

2017, p. 83). Teachers ability to teach the 21st century skills needed by students, will depend on a more effective Continuous professional development which is sustainable, job-embedded and collaboration between teachers, students and policy makers. Good intentions, according to Reeves (2011), are insufficient for leading professional growth. However, empirical data supporting or refuting the influence of professional development on enhancing teaching practices and student outcomes remains few (Fishman, Best, Marx and Tal, 2001). As a result, there is confusion over what should be included in professional development programs and which attributes are most valuable.

The educational system in Ghana has experienced a lot of changes. In 2002, a new reform was started. One of the main goals of the reform was to produce well-trained teachers who could apply, extend, and synthesize various forms of knowledge; develop attitudes, values, and dispositions that foster a positive learning environment; facilitate learning so that students can reach their full potential; and adequately prepare learners to be full participants in national development (MOESS, 2002).

According to Noyce (2006, p.36), "we must acknowledge first that the reason we do professional development is so that students will learn more. Those in charge of professional development have long maintained that professional development for educators and gains in student learning are inextricably linked.

Although teachers are required to carry on ongoing career growth in order to be mindful of emerging social dynamics, some take advantage of current opportunities and re-training provision, but some do not and that may be the cause of the decline in the Basic certificate examination (BECE) results of the Sagnarigu District.

9

The Basic Education Certificate Education (BECE) results are normally used for certification and selection of the pupils at the basic school level, and also to determine how a child should progress into second cycle schools. The BECE therefore provides an excellent opportunity to assess the performance of the basic school system (Oduro, 2000). According to Paaku (2008), the academic performance of students in the Basic Education Certificate Examination (BECE) has received much attention in the Ghanaian educational system. When students' grades were announced last year, educational stakeholders (parents) express a variety of worries about the students' weakening academic success.

The Sagnarigu District Education Office has been organizing professional development seminars for teachers for the past three years. The purpose of these programs is to increase the performance of teachers, which in turn will improve the performance of students. There are, however, many teachers whose performance falls short of expectations, resulting in poor exam scores for their students. After participating in these programs, one may come to doubt their efficacy, since benefit teachers either underperform or fail to use what they've learned in the classroom.

Despite all of these attempts to enhance teachers' performance students' performance is still poor. For instance, between 2014 and 2018, the district scored 49.47 percent, 45.25 percent, 41.07 percent, 42.45 percent and 45.20 percent respectively at the BECE. Sadly, a report by Center for Active Learning and Integrated Development (CALID), an NGO, indicates that, the District is poorly rated in terms of academic performance among other MMDAs in the Northern Region and worst at the national level. The problem to be investigated is "continuous professional development

challenges of teachers and their effects on students' academic performance in Sagnarigu District".

1.3 Purpose of the Study

The study sought to investigate the challenges faced by teachers on their CPD programs and its effect on students' academic performance in Sagnarigu District.

1.4 Research Objectives

The research was intended to achieve the following objectives:

1. To assess teachers' perceptions on Continuous Professional Development CPD programmes in the Sagnarigu District.

2. To examine the constraints faced by teachers in participating in CPD programmes in the Sagnarigu District.

3. To determine the effects of teachers' academic qualification and CPD attendance on students' academic performance in the Sagnarigu District.

4. To identify the relationship between teachers' specific needs and CPD programmes in the Sagnarigu District.

1.5 Research question

The goal of the research was to find answers to the following questions: to the influence continuous professional development of teachers has on students' academic performance.

1. What are the teacher's perception on CPD programmes in the Sagnarigu District?

2. What are the constraints faced by teachers in participating in CPD programmes in the Sagnarigu District?

11

3. To what extent do teachers' academic qualification and CPD attendance have on students' academic performance in the Sagnarigu District?

4. Is there any relationship between teacher's specific needs and CPD programmes in the Sagnarigu District?

1.6 Hypothesis

- H_{01}: There is no significant relationship between teachers' professional qualification and their perception about the benefits of CPD programmes on students' academic performance.

- H_a: There is a significant relationship between teachers' professional qualification and their perception about the benefits of CPD programmes on students' academic performance.

1.7 Significance of the Study

The research is an attempt to increase the existing literature on the continuous professional development and its influence on student academic performance at the basic education level in Ghana and to explore how the performance of teachers affects student's academic performance in the Sagnarigu district. The advantages that are associated with students' academic achievement includes teachers' continual professional development. Adult learning is defined as "covering the entire range of formal, non-formal, and Adults who have completed their primary and secondary schooling and training engage in general and vocational informal learning programs" by the Council of the European Union (2011) in its Resolution on a renewed European agenda for adult learning. This necessitates the removal of impediments to adult education. As a result of this study, educational stakeholders will be encouraged to pay more attention to the district basic education system. The study will also assist

educational managers and planners in adopting new current ways of school management in order to get better results.

Again, the significance of this research is related to contemporary educational reforms, which necessitate competent professional instructors to manage diverse institutions in order to meet the stated goals. It is the hope of the researcher that the findings of this research will serve as a tool to change the poor performance of the candidates at the BECE in the Sagnarigu district and beyond and also improve the quality of teaching and learning in our basic schools. Basically, the findings from the study will assist the district education directorate, parents, NGOs, and other researchers on the influence CPD of teachers has on students' academic performance.

1.8 Delimitation of the Study

The research was carried out in the Northern Region's Sagnarigu district. Since its inception in 2012, the district has consistently had poor Basic Education Certification Examination scores, a fact that parents blame on instructors. It also concentrates on Junior High Schools in the district whose instructors have regularly taught certain courses for the past years. To have a more precise understanding of the influence CPD of teachers has on the academic performance of students of Bishop and Choggu Demonstration in Sagnarigu, the study should have covered participants from all institutions that offer professional training for teachers, including the private basic schools. However, because private basic schools perform well in the BECE, these participants were not allowed to be included. In view of this, the study is delimited to only two public Junior High Schools in the Sagnarigu District. The findings of the study may not be applicable to Senior High Schools or the tertiary institution.

1.9 Limitations of the Study

During the course of this study, the researcher came across a variety of issues. These include, but are not limited to, the following, (i) the study's short duration and (ii) the fact that it was limited to the teacher's professional demands rather than the needs of other auxiliary personnel such as administrative workers. Again, the study was be restricted to Choggu demonstration and Bishop JHS Schools of the Sagnarigu District in the Northern Region of Ghana.

1.10 Organization of the Rest of the Study

The rest of the study are organized as follows: chapter two (2) dwelt on the literature review; chapter three dwelt with the methodology of the study; chapter 4 dwelt with the analysis and discussions of findings whiles chapter five deals with summary, conclusion and recommendations.

1.11 Operational definition of terms

The terminologies below have been used in the text to connote the following meanings:

Basic schools: This is an eleven-year basic education system in Ghana, comprising two-year kindergarten, six years primary and three-year junior secondary school (MoESS, 2002).

Public schools: Government or Public schools are those that obtain all their funding from the state, and are owned by the state. These schools are mainly owned by churches and Islamic authorities, nationalized in Ghana in the 1970s, and which now operate as government schools, but with some vestiges of private management under state regulations (Nsia-Peprah, 2006).

14

Perception: A process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment, and it is influenced by perceiver's attitude which may be positive or negative interest, experience or situation (Tay, Ramachandran, Ong & Towndrow, 2021). It relates to teachers', students', and school principals' perceptions of continuous professional development (CPD) in teaching and learning in two public schools in this study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The review of related literature is an important aspect of any research project as it generates a solid foundation for advancing knowledge, simplifies theory development, closes areas where large volume of research exists, and discover areas where research is needed (Webster & Watson, 2002). This chapter reviews the literature on the influence continuous professional development of teachers has on the academic performance of students. It delves into history, the need for professional development, performance of basic education sub sector, theories and concepts that underpin the issues of CPD and academic performance of students in basic schools; including the examples of CPD that exist, performance, and performance of teachers on students' academic performance, higher qualification and lower qualification of teachers, processes (Teaching and learning) and other proxy indicators of CPD like other CPD that teachers can involve themselves in. This chapter is made up of three parts. The first and second section deals with the theoretical framework and conceptual framework of the thesis and the third section reflects on the analysis of diverse viewpoints (Empirical framework) on continuous professional development of teachers and students' academic performance.

2.1 Theoretical and conceptual framework

2.1.1 Conceptual Framework of the study

Continuous Professional Development (CPD) activities are organized in order to address various instructional needs within the school and are used to enhance student achievement. Such needs can be on the side of the teachers, the students, the school and its systems and the national educational policy reforms.

16

Continuous Professional Development (CPD) programmes in the study are considered as the process and includes teachers' participation in CPD programmes, content of the programmes, the knowledge, skills and attitudes acquired during the CPD activities. CPD programmes are expected to enhance teaching effectiveness thus; teaching effectiveness will be exhibited through improved teachers' attitudes towards CPD, teaching and classroom practices and how it can improve students' academic performance.

Teaching effectiveness will help in bringing about a positive effect on the participants' attitudes towards teaching, the school, and their students' academic performance. This, in essence, would have a favorable impact on students' attitudes toward teachers and what they are taught, as evidenced by their enrollment in various subjects, and on parents' attitudes toward teachers and learning, as evidenced by student enrollment in various schools. Teaching success would have a positive impact on students' social skills as well as their academic successes in school and success in tests, ultimately leading to school progress. However, perceptions of the effects of CPD practices may be affected by CPD that teachers participate in (workshops, lectures, conferences, classroom experience, and professional qualifications), which are viewed as inputs in the research. Teachers' attendance of CPD programmes will, however, depend on the school and its systems as other inputs in terms of cohesion and synergy among the teachers and administration, the leaders' support and governance process, availability of resources, school characteristics (type of curriculum offered, sponsorship) as well as connection and communication with the community.
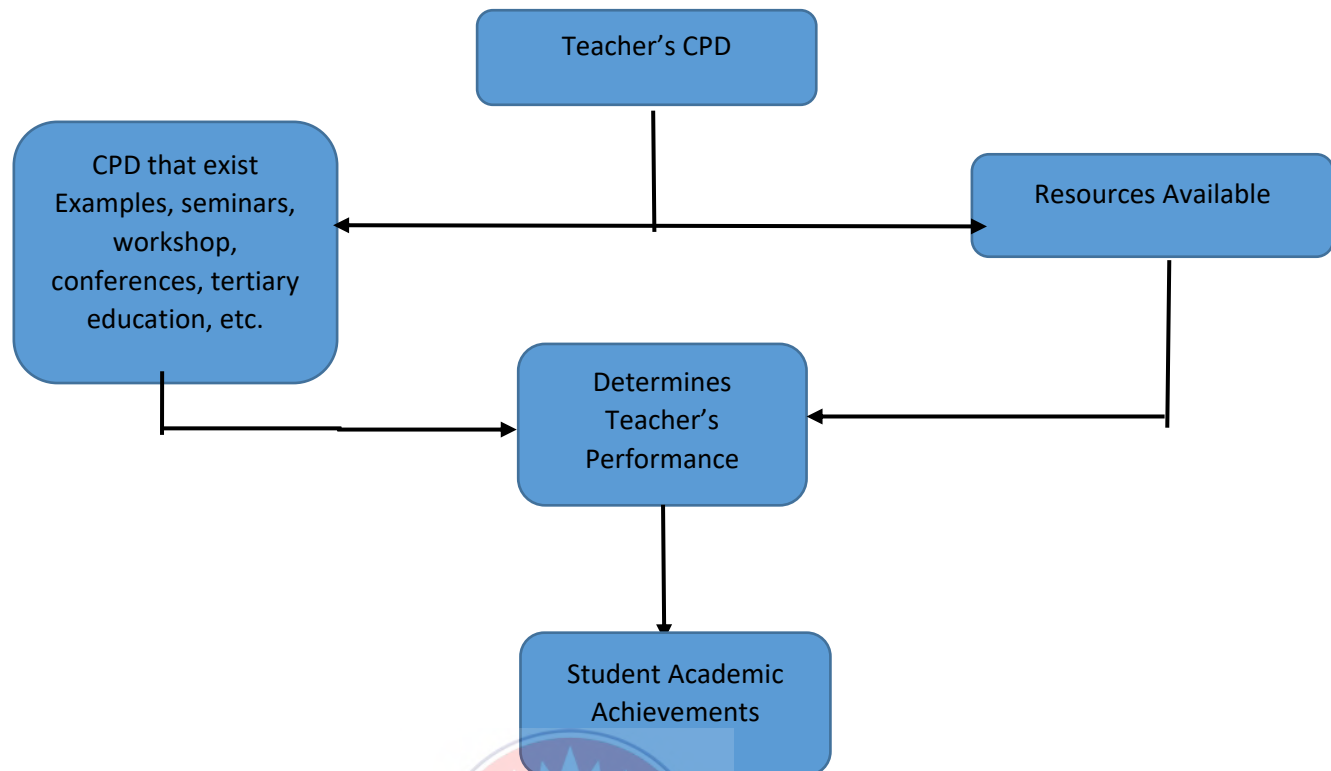
Figure 2. 1: The Relationship between the influence of CPD Programmes of teachers and students' academic performance.

The goal of the study is to look at the impact of teachers CPD on student academic achievement. A conceptualization of the relationship between participation in CPD programmes and students' academic performance and hence, student and school achievement are represented as shown in figure 2.1

Teacher's continuous professional development which consists of seminars, workshop, conferences, tertiary education, observation from other schools, etc. coupled with resources made available to the teachers will determine how teachers delivers in school and this can be seen or reflect in the Student Academic Achievements at the end of every academic term as well as in their final examination (Basic Education Certificate Examination, BECE).

2.1.2 Theoretical Framework of the Study

The Adult learning theory by Malcolm Knowles and the Self-determination theory of motivation will serve as the theoretical framework for this research. Ryan and Deci (2000) self Determination theories of motivation. Woolfolk (2007.372) defines motivation as "an internal state that arouses, direct and maintains behavior' Determining what motivate someone to work hard, to learn to read or to modify teaching practices may all be behaviors educational psychologists may be interested in. According to Malcolm Knowles' adult learning theory, adults will contribute to learning provided the goals and priorities are practical and relevant to them (teachers). There are four postulates in Knowles' hypothesis. Later, a fifth was added.

2.1.3 The Adult learning theory by Malcolm Knowles (1980)

The Adult learning

Adult learning theory is based on andragogy, a term used by Alexander Kapp, a German educator, in 1833, and developed into a theory of adult education by Malcolm Knowles, an American educator. Andragogy, which comes from the Greek words for "man-leading," refers to adult learning practices. It was first defined as "the art and science of assisting adults in learning."

First, Self-concept: As a person matures, his self-concept shifts from that of a dependent personality to that of a self-directed human being, and they must become aware of this shift in order to consciously control it. As a result, adults must be involved in the planning and evaluation of their instruction, allowing learners to understand why something is important to learn.

19

Second, Experience: As a person gets older, he accumulates a body of information that becomes a more valuable learning resource. As a result, learning activities are based on experience (including failures), and the things taught must be relevant to the learners' experiences. Active learning experiences are the most effective learning strategies for adult learners because they have gathered a collection of life experiences that boost the learning resources accessible to them.

Third, Readiness to learn: As a person grows older, his desire to study shifts to meet the social requirements of his cultural position. Adults, on the other hand, are more interested in learning about things that are directly relevant to their profession or personal life; people will not learn unless they are enthusiastic and encouraged to.

Four, Orientation to learning: As a person grows older, his temporal perspective varies from postponed application of information to immediate application of knowledge, and his learning orientation evolves from topic centeredness to issue centeredness. This means that adult learning is problem-centered rather than content-oriented, this means that showing learners how to direct themselves through information.

Five, Motivation to learn: As a person matures, the motivation to learn is internal. Adult learning necessitates assisting students in overcoming their learning inhibitions, attitudes, and beliefs. (Knowles, 1984, p. 12)

These ideas, it is said, are not only for adults because they are applicable to learners of all ages, including youngsters. Adults, on the other hand, display a greater level of cognitive abilities and knowledge acquisition than younger individuals in digital training, which affects the development of the essential tasks in this context,

20

according to Alkalai (2004). Despite the seeming lack of agreement in the research about adult and child learning techniques, it emphasizes the need of taking participants' profiles into account when creating these programs. The application and assimilation of adult learning concepts for teachers, which is the subject of this study, can help teachers comprehend effective CPD possibilities, which can help teachers grow. Because adult learners have many responsibilities and are or can be involved in a variety of activities, their learning must be balanced. They understand, in general, that they must be responsible for creating their own learning path. As a result, it is critical to ensure that their voices are heard within the learning environment, as well as to challenge institutional policy, structures, and practices in order to support mature learners' unique learning experiences (Merrill, 2004). Furthermore, McQuiggan (2007) emphasized the importance of adult learning theory in the development of a faculty member, as well as the application of its functional principles, practices, experience, implementation, and strategies to professional development activities. The basis of adult learning should build on a faculty member's past experiences, and it should use these as a guideline for designing Continuous Professional Development activities. McQuiggan (2007) also stressed the need of ensuring that the principles of adult learning, as well as the learning objectives and activities, are compatible at each step of developing a Continuous Professional Development program.

Adults are more inclined to contribute to their education if the goals and objectives are realistic and relevant to them. Since application in the "real world" is vital and practical to the personal and professional demands of the adult learner, teachers can extend these experiences to improve the intellectual ability of their students. Adults tend to be the source of their own learning and would discourage learning experiences that they see as an assault on their competence. As a result, career growth must give

learners some say about what, how, why, where, and where they study. As professional experiences are merged into the classroom, students' educational attainment can improve.

Adult learners must see a link and relevance between their career development experience and their day-to-day activities. Adult learners need clear, tangible interactions with which they can incorporate what they've learned in the workplace (classroom). Adult learning is ego-driven. Opportunities for the learner (teacher) to practice the learning and obtain organized, useful feedback must be integrated into CPD activities. Adults must engage in small-group activities during the learning process in order to progress from comprehension to application, analysis, synthesis, and assessment. Professional preparation must be developed with peer reinforcement in mind, as well as a reduction in the dread of being judged while studying. As a result, it must not be expanded into the classroom. Small-group exercises allow participants to discuss, reflect on, and generalize their learning experiences. When teachers at a school collaborate to exchange ideas and experiences in the classroom, it allows them to learn from one another and boost their confidence and technical know-how in order to have a beneficial influence on students and their academic achievement.

Adult learners bring a diverse set of prior experiences, knowledge, self-direction, interests, and competencies to the classroom. Diversity must be taken into account when developing CPD plans. Adults' learning does not transfer automatically and must be helped. Adult learners require coaching and other types of follow-up support in order to integrate their learning into everyday practice and maintain it. (See pp. 36-37). Adults in this context refer to teachers, and instructors must apply what they have

learned on a regular basis in order for it to be sustained and recognized in their pupils' academic achievement.

Teachers with a variety of experiences bring with them previous learning and knowledge, self-direction, interests, competences, and experiences. Given that these CPD assignments must take place in the teacher's life, teachers' acquisition of this information, abilities, and behaviors would take into consideration the adult learning philosophy, which reflects the expanding basis of how children learn, as well as effective educational practices. Teacher, like all individuals and professions, require more time, money, and resources for ongoing professional development and employment engagements.

Teachers are devoted to learning in this way by aiding students in overcoming inhibitions, habits, and beliefs; they obtain information through learning experiences and are inspired and ready to study. Their views and opinions are determined by their early experiences. As a result, this variety must be accommodated in their CPD programs. It is effective when it combines, identifies, and validates past experiences, allowing it to be content and context specific. Continuous Professional Development (CPD) programs that address a wide range of learning modalities will be the most successful. Full engagement is crucial, but it must be calibrated against the realities of limited time and the need to effectively impart information. Adults are driven by genuine applications and learning that is applicable to their personal situation. Adults, like children, have different styles of learning. This is certainly relevant for instructors who are balancing a multitude of time demands.

Mwita (2015) contend that CPD will be most effective when it provides direct application to the classroom. When applied properly, this may go a long way toward improving students' academic performance or success, as well as their knowledge and know-how to better their way of life now and in the future. They appreciate CPD that is well-planned, has reasonable expectations and goals, and is implemented successfully. Teachers are easily distracted, fascinated, and always juggling a plethora of demands for their attention.

Lippitt, Knowles, & Knowles (1984) discussed the concept of andragogy, the ways in which adults learn. From this concept, Knowles (1990) developed the adult learning theory. Lippitt et al., (1984) described the adult learner as independent and one who directs his or her own learning. Their educational demands are related to shifts in social responsibility; they are problem-oriented and interested in applying information directly; and they are inwardly motivated. In addition, adult learners have life experiences that impact their learning. The adult learning theory is focused on ways to provide workers with tools needed to increase workplace performance (Kenner & Weinerman, 2011). Within the adult learning theory, Knowles (1990) outlines five assumptions that should be utilized when planning professional development opportunities for the adult learner. In summary, first, adults are motivated to learn when they need to know new skills thus teachers ought to learn new skills to be able to impact new knowledge into their students as the world evolves. Adult learning is lifelong, and experience is the main resource. Adult learners have increased practical knowledge and skills in the workplace (Kenner & Weinerman, 2011). The learning should be self-directed, and individual differences exist based on age (Knowles, 1990). Teachers want to learn techniques that can be immediately utilized in the classroom, participate in problem solving activities, and discuss practices with others

(Trotter, 2006). Professional development opportunities should utilize information from the adult learning theory to help the adult learner gain skills and new knowledge from the experience. The ideas presented in the theory relate to England, (2020) key ingredients for adult learning. England (2020) indicated adult learning should use concrete experiences, provide continuous advising, encourage adults to take on new roles, and include support and feedback.

2.1.4 Self Determination Theory of motivation (SDT).

Self Determination Theory (Ryan and Deci, 2000) is a conceptual framework for understanding human motivation that emphasizes the relevance of internal resources for personality development and behavior self-control. The pursuit and achievement of three essential psychological goals of competence, relatedness, and autonomy are at the heart of Self Determination Theory (SDT). A need is an intrinsic, universal psychological requirement that ensures one's life, health, and development (Brownsword, 2019). The desire to be competent in dealing with one's circumstances is referred to as the demand for competence. The want for competence, relatedness, and autonomy, according to proponents of Self Determination Theory (SDT), sets the foundation for motivation and personality integration. The need for relatedness involve people's desire to interrupt with and care for others, as well as experience, feelings of belongingness (Ingiaimo, 2012).

According to Self Determination Theory (SDT), it is fulfilment of these basic needs that are the basis of well-being, while the thwarting of these needs causes unhappiness and unbalanced mental growth. The issue of autonomy or self-determined, form of extrinsic motivation is regulation through identification. Here the person has

identified with the personal importance of a behavior and has accepted those regulation as his or her own.

Self Determination Theory **(**SDT) proposes that intrinsic motivation is the doing of an activity for its inherent satisfaction rather than for some separable consequences. When a person is intrinsically motivated, he or she is motivated to act by the pleasure or challenge it provides, rather than by external prodding's, pressures, or rewards.

Intrinsic motivation, on the other hand, is a concept that applies anytime a task is carried out with the goal of achieving a certain result. Specifically, because in operant (Skinner, 1974), maintained that all behaviors are motivated by reward (i.e. by separable consequence such as flood or money) intrinsically motivated activities were said to be for ones which the reward was in the activity itself. For example teachers (Private) in the Sagnarigu District cannot be said to be pursuing further studies because of fear of sanctions for not doing so. But they are said to be intrinsically motivated because they are doing it in order to attain the separable outcome of avoiding sanctions. Furthermore, not only tangible rewards but also threats, deadlines, directives and competition pressure. (Reeve & Deci, 1996) diminished intrinsic motivation because; according to them people experience them as controllers of their behavior. On the other hand choice and opportunity for self-direction appear to enhance intrinsic as they afford greater sense of autonomy (Lathin, Smith & Deci 1978). Similarly individual teachers who are pursuing Continuing Professional Development because they personally believe is valuable for their choosing career are also intrinsically motivated because it for its instrumental value rather than because they find it interesting. Both examples involve instrumentalities, yet the lather case

entails personal endorsement and a feeling of choice, whereas the former involves mere compliance with external control.

Motivation is the energy, direction, patience and intentionality that direct biological, cognitive and psychological functioning (Ryan & Deci 2000). According to Ryan & Deci (2000; 54) "To be motivated means to be moved to do something''. The question most psychologists connect with motivation are "what" and "why" (Ryan & Deci, 2000). That is, and whys that drives teachers in the Sagnarigu District to embark on professional development. Individuals' reactions to work are based on natural inspiration, especially when learning is involved, insofar as there is some drive behind every activity. In the words of Taba (1962), the learning process is not to be explained without mention of motivational process. Because something transpires between the application of the stimulus and the activation of the response, most social and human connection researchers can look at motivations and attitudes as contextual factors in teaching and learning.
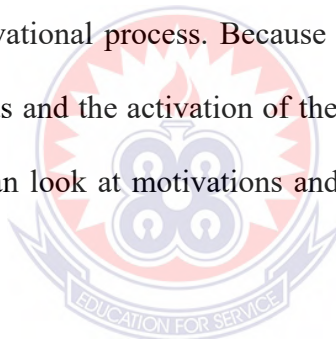
In recognizing the functional interrelationship between motivations and learning McClusky (1970) and McGlinchey (2021) argues that, in the learning process, what intervenes between the stimulus and the response represents the accumulated experience and motivation of the person who is stimulated and does the responding. In another perspective, an unmet need is the beginning point for the motivating process. It is what initially arouses, energises, and motivates individuals to action, and it is what keeps the movement going by guiding or integrating it.

The initial link in the chain of events leading to behaviour is a lack inside the individual. Motivation, on the other hand, is concerned with why individuals do what

27

they do and what motivates them to accomplish something, continuing striving for it, or cease striving for it when motivated in another way.

The individual's personal unfulfilled need causes physical or psychological stress, pushing him to take action to meet the need and thereby release tension. Achieving the goal satisfies the need and the process of motivation is then completed. For the purpose of this study, Knowles (1984), basic assumptions in andragogy are significant in explaining motivation. Adults, according to Knowles, have a strong psychological desire to be largely self-directed; they have a pool of experience that may be used to acquire new things. Adults learn when they have a need to learn in order to deal with real-life activities or issues, and they view learning as something they can utilize right away to meet that need. According to Knowles, any learning assignment that is structured with these principles in mind efficiently provides for a positive learning atmosphere and has significant implications for participation, and this may go a long way toward improving or not improving students' academic achievement.

2.2 Empirical Studies on CPD of Teachers and Students Academic Performance

2.2.1 The Concept Education

Nelson Mandela, a prominent advocate for human rights, has underscored that education stands as the preeminent and potent tool within our grasp to enhance the state of the world. In his perspective, education emerges as the paramount instrument through which substantial advancements can be made to the global condition, epitomizing a force of unparalleled influence and transformation. There is no universally agreed-upon definition of education. To various groups and civilizations, the term has diverse connotations. However, there is a sliver of agreement on the definition of the idea throughout all experts and nations. "Education". From the

28

perspective of all scholars, the underlying premise regulating the idea of education is that it has to do with teaching and learning.

The term education is derived from the Latin words "educare" and "educere." Educare means "to put up" or "to nourish," while "educere" means "to bring out" or "to pull out." Others say the term is derived from the Latin word "educantum," which has two components. The letter "E" denotes a transition from within to beyond, and the word "duco" means to grow or advance. An examination of these terms reveals that schooling seeks to provide a nourishing atmosphere for a learner or infant in order to draw out and cultivate the latent potentiality buried within him.

According to Farrant (1980), education describes "the total process of human learning by which knowledge is imparted, faculties trained and skills developed." Without a comprehensive education, no nation can grow. According to Aristotle, "to exist alone, one must be an animal." Education has received a lot of attention and importance in African countries, particularly in Ghana, where the government at all levels has discovered that the standard of education provided in the Ghanaian educational system influences the quality of growth experienced globally. Humans exist in a culture. However, in order to satisfy the needs of its citizens, the community in which we exist must fulfill those roles. The majority of these tasks necessitate human behaviors (knowledge, abilities, and attitudes) that must be acquired. As a result, schooling is needed. On the other hand, education is described as the intentional behaviors by which individuals are consciously enculturated into societal norms, beliefs, and practices: but only in relation to informed individual interests. The Collins Colbuld Advanced Learner's English Dictionary defines education as the process

through which a person develops his or her mind by studying at a school, college, or university, and obtains knowledge and skills in the process.

Dewey (2016) has made a valid point, "All educations proceed by participation of the individual in the social consciousness of the race." As a result, the goals, topics, and methods of education will be determined by society. In this approach, the educational process is made up of three (3) poles: the teacher, the kid, and society. Education as a means of progress: Growth leads to further growth, and education leads to more education. "An individual is a developing and evolving personality," Dewey (2016). The goal of education is to make the process of his or her development easier. As a result, education plays a vital part in the development of a great society and man. Every community and nation must strive to provide comprehensive happiness and prosperity to its citizens.

To educate means to train people in order for them to gain knowledge, skills, and attitudes whiles learning is the method of gaining these. Teaching and training promote learning thus; level of learning is determined by culture. For example, in a society where agriculture is important, the curriculum (learning activities) is based on agriculture. "Pluto defines education as "the flipping of the soul's eye from darkness to light." Education plays great positive effects in the lives of individuals and the development of every nation. Through education people are not only informed about what is going around them or their country but to the wider world as well. The planet is not, by any means, referred to as a "universal village." Training is credited with this. Because of the profound contribution or role of education in the lives of individuals for progress, education has been established as a right and enshrined in Ghana's 1992 constitution. Education Act of 2008, Act 778 stated it explicitly what

the rights of education is to the Ghanaian child. Below is an extract from the Education Act of 2008, Act 778.

1. Child who has attained school going age shall at the basic level attend a course of instruction as laid down by the minister in a school recognized for that purpose by the minister.

2. Education at the basic level is free and compulsory.

3. A District Assembly (DA) shall subject to section 3, provide the necessary infrastructural needs and any other facilities for the education of the population in the area of its authority.

4. Where a child does not attend a course of instruction in compliance with subsection (1) parent shall, in the first instance, appear before the social welfare committee of the District for appropriate action.

5. A parent who fails to comply with the appropriate action agreed on with the social welfare committee, commits an offence, and is liable on conviction by a District court.
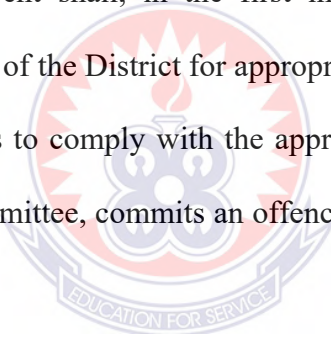
The United Nation General Assembly (UNGA) have noted the importance of the contribution of education in global development recognized the right of education under Article 26 of Universal Declaration of Human Right (UNDHR). Below is an extract of the Universal Declaration of Human Rights (UNDHR):

I. Everyone has the right to education. Education shall be free, at least in elementary and fundamental stages

II. Education shall be directed to the full development of human personality and to strengthening of respect of human rights and fundamental freedoms.

III. Parents have the right to choose the kind of education that shall be given to their children.

31

Education which serves as a hallmark for both individual lives and nation development would not achieve the needed goal(s) if quality is compromised.

Teaching and learning are two components of the educational process. Teachers instruct while pupils absorb the information. In general, schools are required to establish an atmosphere and climate that is favorable to successful teaching and learning so that both instructors and students are productive during school hours. It is generally acknowledged that the level of education is determined by the quality of the teacher, since the teacher does not rely on the learner in the same way that the learner rely on the teacher (Amissah, Sam-Tagoe, Amoah & Mereku, 2002). The Ministry of Education stated that teachers are at the forefront of every school change and they are the ones who carry out the reform agenda backs this up. Regardless, the sort of Continuous Professional Development (CPD) a teacher receives is a critical aspect in accomplishing curricular or reform goals for students' academic performance or achievement. This guarantees that the instructor is responsible for both a solid program and a good improvement.

2.2.2 Importance of Education

Education prepares the populations for variety of purposes within the economic, social, political, religious and other structures of the public. Education enables a person to make educated decisions, distinguish between good and evil, and, among other things, to have a better family plan. It makes people more sensitive, responsible, and socially acceptable. Education is also intended to establish manpower for various economic levels, which is the ultimate guarantee of national self-reliance. Education, on the other hand, is the bedrock of growth. The requisite learning outcomes differ depending on the context, but at the end of the basic education period, they must

include threshold standards of literacy and numeracy, science understanding, and life skills such as disease awareness and prevention. Throughout this era, the quality of teachers and the engagement of other education stakeholders, as well as capacity building, are critical.

Education is critical to a country's development. Education that is both relevant and of high quality acts as a catalyst for rapid socioeconomic development. Poverty reduction can be achieved through functional education. It possesses the potential for self-actualization. Constitutional mandates and international agreements to which the country is a signatory confirm the provision of education as a right of every kid. Children's potentials can be developed from home through school and then to the world of employment. This includes parents' ability to send their children to kindergarten, as well as children's enrollment and interest in school for the advancement of their latent intellectual abilities. To increase National Developmental growth, there is the need for proper skills, positive attitudes, abilities and capabilities to be adequately driven.

"There are three elements that have to be taken into account in authentic and living education," Sri Aurobindo stated, "the man, the individual in his commonness and uniqueness, the nation or people, and universal humanity." The definition of "real national education" is "everything that helps to bringing out to great advantage, trains for the full purpose and diversity of human experience all that is in the person. On the other hand, it aids her or him in establishing correct relationships with the life, mind, and soul humanity of which he is a unit, and with his race or nation, of which he is a living, independent, but inseparable member." It must highlight the person's potential, uniqueness, and common characteristics. True education encompasses not just the

33

individual, but also the nation and humanity. It must prepare the minds and souls of both individuals and nations to serve mankind. Simultaneously, it should develop a positive interaction between the person and the life, mind, and spirit of mankind and the globe.

Education is intrinsic to development. Education is essential for a country's progress. Education allows people to gain information and skills, which are the most significant factors in achieving development and reducing poverty in today's world, since knowledge is the primary source of wealth. (UNESCO, 2003). Education also helps people to make well-versed choices or choices concerning ultimate issues such as life styles, diet and family size which have direct implications for health, productiveness, life expectancy, efficiency and per capita income growth levels of individuals and nations at large (OECD, 2002).

2.2.3 Educational Development in Ghana, 1908 – 2007

To get a better awareness and knowledge of the topic of educational reforms in the evolution of education in a developing nation like Ghana, it is necessary to distinguish between educational reforms and educational reforms in this context. Educational reforms constitute programmes and actions that are initiated in the education system intended to bring about major improvements within the existing educational system while reforms of education are transformations in goals and objectives generally linked to social or political changes outside of the education system (UNESCO, 1979, p. 48).

Following from the realization that the nation's educational system did not meet the developmental needs of the newly independent nation for rapid socio-economic development, past and current regimes in the nation initiated a process of reviewing

and/or reforming the nation's educational system to provide quality education (Abosi and Brookman-Amissah, 1992, p.17).

The beginnings of educational reform in the United States may be seen in the early 1900s. The development of educational practices in African-American schools in the United States prompted Governor Sir John P. Rodger of the Gold Coast to form a committee in 1908 to consider various matters relating to education in the Gold Coast, which resulted in changes in the colonial government's educational policy and the introduction of the Education Rules of 1909, which were intended to provide direction to improve teaching methods, introduce agricultural and vocational training, and introduce the Education Rules of 1909, which were intended to provide direction to improve teaching methods, introduce Governor Guggisberg established his Sixteen Principles in 1920 in an attempt to enhance the Gold Coast's educational program.

The principles among other things called for the provision of universal primary education; quality secondary education; equal educational opportunities for boys and girls; trade schools with a technical and vocational education, and quality university education for men and women. (McWilliam & Kwamena-Poh, 1975, pp. 57-58). It is worthy to note that the introduction of these principles constituted a major educational policy direction for the nation's education under colonial rule well into the 1960s.

During the Convention People's Party's reign, some educational reforms were implemented. In 1952, the Accelerated Development Plan for Education was enacted, which included a fee-free basic education and the establishment of a number of secondary and teacher training institutes. There were 8,144 public elementary schools with a total enrolment of 1,137,494 children and 105 secondary schools with a total enrolment of 42,111 students when the CPP administration was overthrown in a

military coup by the National Liberation Council (NLC) junta in February 1966. The nation's educational agenda remained entwined with that of the colonial master.

This did not address the local needs and challenges of a newly independent nation's rapid socioeconomic development. The National Liberation Council (NLC) was opposed to free compulsory education and put a stop to it. Some public primary schools have been shuttered. Enrolment in public primary schools in the nation's Northern territory had fallen by one-third by the end of 1966. (McWilliam & Kwamena-Poh, 1975, p. 116).

Due to the proliferation of private preparatory schools, enrolment in elementary schools in Asante and Southern Ghana increased even more. The NLC administration established two groups to investigate various facets of the educational system in order to improve its functioning. In 1967, one of the committees, the Mills-Odoi Commission made the following recommendations: that the management of secondary schools and teacher training colleges by the Ministry of Education should be decentralized and given to Regional and District Authorities; establish a teaching service division of the Public Service Commission; improve the remuneration and other conditions of the teaching service. Although the government was not too happy with these recommendations they were implemented (Education Review Committee, 1967). In July of the same year, the other body, the Education Review Committee under the chairmanship of Professor A. Kwapong also submitted its report. The report acknowledged a fall in "educational standards" due to inadequate supply of qualified teachers and the appointment of some politicians and other public office holders with little amount of education to serve in the education sector (McWilliam & Kwamena Poh, 1975, p. 117). Six years of primary education; ten years elementary education

but at the end of eighth year pupils could be selected for secondary school and those who were unable to enter secondary schools should undergo two years continuous schooling with prevocational bias were some of the recommendations made by the Committee. Also, there should be five years of secondary education and two years of sixth form education which should lead to a School Certificate of the same standard as the Ordinary Level of the General Certificate of Education and the Advanced Level of General Certificate of Education respectively.

During the Busia regime, the government also established a committee to investigate the problems with the education system. As a result, in 1971, the Ministry of Education issued a document called "Curricula Changes in Elementary Education" that recommended using Ghanaian language as the medium of instruction for the first three years of primary school and English language from the fourth year onwards, though in places like metropolitan and urban areas where children had already been exposed to English language, the transition from Ghanaian to English language could begin earlier than the fourth year. As a result, Ghanaian language was taught as a topic in school. In 1972 a military junta led by Colonel I.K. Acheampong overthrew the Busia regime and set up a committee under the chairmanship of Professor N.K. Dzobo to study the education system and make recommendations for its improvement. Upon the Committee's recommendations, in 1974, the government introduced education reforms characterized by the acquisition of practical skills in vocational and technical subjects such as carpentry, cane-weaving, home science, textiles and masonry under the Experimental Junior High Schools and reduced the duration of pre-university education from seventeen (17) years to thirteen (13) years. A nine-year fee-free compulsory basic education was approved: six of primary schooling and three years of Junior Secondary education. The Ghana Teaching

Service was converted into the Ghana Education Service and a Book Development Council to coordinate activities in the book industry was established (Abosi & Brookman-Amissah, ed., 1992, pp. 21 - 22). The changes constituted major reforms because the content and structure of education were affected.

The Provisional National Defense Council (PNDC) began a new reform program in 1986, and it began in September 1987. Increased access to basic education, particularly in the northern half of the country and other areas where enrolment had been persistently low, increased access to senior secondary education to 50% of junior secondary school leavers, and increased access to tertiary education to 25% of senior secondary school leavers were among the program's objectives. Six years of elementary school, three years of junior secondary school, three years of senior secondary school, and four years of tertiary (university) school were established.

Every Ghanaian child of school-going age received nine years of free and compulsory basic education. The period of pre-university education has been decreased to 12 months. For purposes of assessment, continuous assessment was introduced. At the end of the nine years pupils sat for the Basic Education Certificate Examination (BECE) to determine those who will continue to secondary schools to offer programmes in general education, business/commercial, vocational/technical, agriculture and those who will terminate their education (Abosi & Brookman-Amissah, ed., 1992, p. 23).

The reform comprised substantial changes to the content and organization of education in the country. By 1990, the focus of the reforms had shifted to Senior Secondary education. An Education Review Committee was formed to examine at the reform program's identified flaws. A National Education Forum was conducted in

1994. Some issues with the educational system were identified, and recommendations were made.

On January 17, 2002, the New Patriotic Party, led by J.A. Kuffour, established a committee to review education reforms, which was chaired by Professor J. Anamuah Mensah. Winneba University of Education Vice-Chancellor (UEW). The Committee looked into the country's educational progress and delivery. The government implemented educational changes in 2007 based on the Committee's recommendations. Significant changes were made to the curriculum and structure of education. The changes included 11 years of basic education: comprising two years of pre-school, six years of primary education and three years of Junior High School; four years of Senior High School; three years of technical and vocational education and three years of university education.

When it comes to supporting technical training, the government would cover the first year's costs, but the trainee would be responsible for the subsequent years Education Review Committee, 1967).

Since the 1960s, there has been a notable increase in female enrolment at all levels of Ghana's educational system. Despite this, the phenomena of gender inequality or imbalance remains. Now we'll look at the variables that limit or influence female involvement in schooling across the world.

2.2.4 Background to Basic Education in Ghana

Education is a process that may be explained differently and therefore, may defy a precise definition, but its general sense could be defined as a systematic or organized knowledge designed for learners in formal or informal settings (Akyeampong, 2001).

39

Basic education is an important step in attempting to enhance the status of many people – women, rural folks, the urban poor, marginalized ethnic minorities and the millions of children who are not attending school but working (UNESCO, 2007).

The concept of basic education expands the dimensions of the right to education for lifelong learning (Unicef, 2000). Basic Education according to the Millennium Report of Education for All in 2007 specifies the skills, knowledge, attitudes, values and inspirations that are deemed necessary in order for children to become well-educated (UNESCO, 2007). In terms of access to basic education, the Jomtien declaration in 1990 had moved the definition of basic education beyond the acquisition of basic skills, towards empowering the children to meet their future personal and social needs (Black & William, 1998). Basic education thus creates the opportunity to provide the right channel for children to continue to higher levels of learning and those who cannot, it gives them the opportunity to acquire work-related skills (Oduro, 2000).

Basic education is quite an elusive concept and most countries have chosen to limit 'basic' as the first step of formal schooling. Basic education in its right sense is described as an action formulated to meet basic learning needs of learners and equally must correspond to the actual needs, interests, and problems of the individuals in the learning process (Black & William, 1998). Basic education is technically a primary schooling, but its linked programs are aimed at children who have lost out on formal schooling, and literacy programs are aimed at adults. It may also be viewed as a big reservoir of information that everyone, regardless of age, has a right access at any point in their lives.

Many poor nations, including Ghana, have implemented Universal Fundamental Education (UBE) to improve basic educational access for their citizens as part of their attempts to fulfill the Sustainable Development Goals (SDGs) and the Charter for Education for All (EFA). The Republic of India with the second largest education system in the world had made a Constitutional Provision to provide free and universal Primary and Middle grade education for all Indians as far back as at 1960 (NCEE, 1997). Besides, Nigeria for example introduced her first universal access to basic education in 1976 but was unsuccessful; however, since 1999 she has been providing un-altered free access of six year primary school and three year junior high school for every Nigerian child of school going age and also ensures the reduction of incidence of drop out from the formal schooling system (Rolleston & Adefeso-Olateju, 2012).

In the same vein, the Republic of Rwanda in 2012 won the Commonwealth Education Good Practice Awards for their inventive fast-tracking strategies of the nine 'Year Basic Education Programme'. The structure of basic education in Rwanda is made up of a pre-primary education for children within the ages of three to six years; a full Primary education of a six year duration, and in theory enrolls children of seven to twelve years of age and a three year lower secondary cycle which in addition to primary, constitutes Rwanda's nine year basic education system (World Bank, 2011). Professor Jophus –Anamuah Mensah, a former Vice Chancellor of the University of Education Winneba, chaired an educational review committee in Ghana in 2002 that looked at the new basic education system in Ghana, which included two years of kindergarten, six years of primary school, and three years of junior high school (MoESS, 2008). According to Quayson (1996), as stated in Asiedu (2017), the Free Compulsory Universal Basic Education (FCUBE) seeks to achieve high levels of fairness, quality, and efficient educational service delivery by the year 2005. Any

41

nation would be unable to engage in or succeed in today's fast-paced technology age without a well-designed education system. As a result, instructors must work with fire and desire to establish a strong human resource foundation for the country. This innovation demands on-going training for all teachers, who are the central characters in the educational drama of change and creativity.

According to Paula Varaidzai Makondo and Davison Makondo (2020), education serves as a tool for both personal and national development, promoting economic, political, scientific, cultural, and technological growth, as well as social integration. In Ghana, the government has implemented various strategies to ensure that the goals of the Free Compulsory Universal Basic Education (FCUBE) policy and Education for All (EFA) agenda are achieved. These strategies include the school feeding program (SFP), the provision of teaching and learning materials, free uniforms, exercise books, pads for females, and sandals, as well as the establishment of the capitation grant per child enrolled, best teacher awards, and other teacher career development programs (myjoyonline.com 2018).

Despite these efforts, the education sector and its stakeholders still need to do more to improve academic performance, especially in the Basic Education Certificate Examinations (BECE). The Sagnarigu Municipality in Ghana's Northern Region is a case in point, as public basic schools in the municipality have consistently performed poorly in the BECE. The Centre for Active Learning and Integrated Development (CALID) (2013-2017) and a BECE analysis (2018-2020) published by Ghana Education Service revealed that the Sagnarigu Municipality consistently scored below average on the annual BECE, with results ranging from 34.58% to 49.47% over the years. Sagnarigu Municipality ranked ninth out of 26 MMDAs at the regional level

and 125th out of 216 MMDAs at the national level in the BECE (CALID, 2018, GES, 2020).

Edward Brenya and his colleagues (2021) attributed the poor academic performance of students in the Sagnarigu Municipality to factors such as ineffective management and monitoring at schools, lack of enthusiasm among teachers, and inadequate supply of qualified teachers to fill empty classes. Their research also revealed that various factors, including intelligence, poor study habits, achievement motivation, lack of career ambitions, low self-esteem, low socioeconomic status of the family, poor family structure, and anxiety, can affect academic performance. It is clear that multiple factors can contribute to poor academic performance among students, highlighting the need for empirical research to identify the underlying factors and provide solutions to improve academic achievement.

Therefore, it is essential to investigate the reasons behind the poor academic performance of students in the Sagnarigu Municipality and provide support for ongoing initiatives to raise students' academic achievement generally. This would require a collaborative effort from all stakeholders in the education sector, including the government, teachers, parents, and students, to ensure that quality education is provided and that students are adequately prepared to succeed in their academic pursuits.

The concept of basic education is an essential component of education systems worldwide. Basic education typically spans 11 years, with the curriculum being free and required for students aged 4 to 15. The aim of basic education is to provide students with fundamental literacy, numeracy, problem-solving skills, creativity, and healthy living skills. The curriculum comprises three divisions: kindergarten,

elementary school, and junior high school, where the Basic Education Certificate Examination takes place. The International Commission on Education for the Twenty-first Century identified that basic education is critical in trying to address the massive disparities affecting various groups, including women, rural populations, the urban poor, marginalized ethnic minorities, and millions of children not attending school and working (UNESCO, 1996).

Moreover, the Jomtien Declaration expanded the definition of basic education beyond just fundamental skills. It now includes providing students with the necessary tools to meet future social and personal requirements, which will enable them to learn at higher levels or acquire job-related skills (Oduro, 2000). In this sense, basic education serves as a foundation for lifelong learning, giving children the chance to continue learning and building their skills throughout their lives.

Low academic performance is a persistent issue in education, and various researchers have provided their definitions of it. According to Asikhia (2010), low academic achievement is any effort that does not meet the required standard. Aremu and Sokan (2003) define it as a performance deemed by the examinee or others to be below an expected standard, while Okoye (1982) characterizes poor academic performance as a failure to meet a predetermined standard of performance in a particular evaluation exercise, such as a test or an examination. In general, a candidate is considered to have performed poorly academically if their score falls short of the benchmark.

Academic failure has grave consequences for society. For one, it results in a shortage of labor across all sectors of business and politics. Additionally, it is a frustrating experience for students and their parents (Aremu, 2000).

2.2.5 Access to Resources for teachers and their Effect on students' academic Performance

According to MOE (1994), cited in Butakor & Dziwornu, (2018), Textbooks, stationery, furniture, equipment, and recreational facilities are all necessary for effective education and have a favorable impact on academic performance. Continuous Professional Development (CPD) for teachers, as well as access to teaching and learning resources, may go a long way toward assisting instructors in assisting students in improving their academic performance. As Adedeji and Owoeye (2002) specifies, Physical material resource availability is crucial to any instructional endeavor.

They emphasize that appropriate school buildings, classroom furniture, and other instructional facilities are required for the achievement of any educational goals. As Sekyere (2002) suggests, because teaching and learning materials are the things used by teachers to make teaching and learning attention-grabbing and simple for pupils to acquire, comprehend, and use in their everyday lives, they should be provided in adequate number for efficient and effective teaching and learning.

The resource situation in an educational institution is a major determinant of school performance (Adedeji & Owoeye, 2002). Only a few schools in Ghana have access to conventional teaching and learning materials, and many teachers and pupils lack access to and training in the use of advanced information communication devices. Meanwhile, teachers must be efficient in their classroom instruction by utilizing modern tools such as computers, television, and internet access. Although appealing facilities such as laboratories, libraries, and instructional materials are a major contributor to high academic achievement in the school system, audio-visual

45

resources and textbooks in the library show up to have little impact on students' academic achievement when students' background has been acknowledged as a variable. (Adedeji & Owoeye, 2002). This is why teachers should improve their knowledge and skills with professional development to enable students attain better academic results. In agreement, Hallak (cited in Adedeji & Owoeye, 2002) and Kocchar (2004) emphasize that the quality of an educational system depends on the quality of teachers and that the best array of instructional media is of little avail if the teacher is "ignorant, unskilled, or indifferent".

This verifies Adedeji and Owoey's finding that the quantity of physical or material resources allocated to a school has no significant relationship with the academic performance of students if the human resource is not equipped to use them, therefore the need for Continuous professional development. It also means that in order for a student to do well in higher education, they must have had the preparation from the beginning, where instructors are regarded as more vital than equipment and supplies to act as a stepping stone to higher education. This is why Squire (2002) believes that having the essential resources arranged in a controllable structure is insufficient without a good delivery route.

Several researchers challenge the notion that Professional development is only as effective as a teacher's will to employ the knowledge and skills gained. They note, "Teachers that are willing to implement professional development practices in the classroom often face hurdles that are beyond their control."

Teachers may also face hurdles that are within their control, but which are difficult, if not impossible, to attend to, given the challenging nature of their specific school environments (Buczynski & Hansen, 2010). Among these barriers are a lack of time

allotted to teaching curriculum that uses the newly acquired knowledge and skills; the need to teach mandated curriculum on a pacing guide; challenges of teaching learners without specific PD to address students' learning needs; a lack of resources (such as curriculum materials, technology, or science equipment); and classroom management issues (Buczynski & Hansen, 2010).

2.3 The Concept Continuous Professional Development

Fast - paced technological transition means that a worker can no longer exercise the same job expertise in the same way throughout his or her career. Continuing career learning empowers you to make decisions and change your path. It is the method by which practitioners remain up to date and uphold their standards as professionals in the practice of their work. Professionals aspire to preserve the currency of their expertise by continuing professional growth, and it is through continuing professional development that individual knowledge is both strengthened and increased. There is growing interest around the world in teachers' CPD as an essential component for improving pedagogy and teaching practice (Kennedy, 2005). Increased attention should be directed towards ensuring: the sustainability of such efforts to support teachers to continue learning; and the evolution of their classroom practice across their careers in order to raise the quality of education in schools (Kennedy, 2005; Sabah, Fayez, Alshamrani & Mansour, 2014). A definition of CPD proposed by Abakah, 2022 is a good example of a broad definition of the concept: consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute, through these, to the quality of education in the classroom.

Major (2015) states that the high-achieving education systems around the world are those which are investing heavily in the learning and Professional Development (PD) of their teachers. Real advances in teaching and achievement occur as a result of this high-quality professional development.

It is the procedure by which teachers, individually and in a group, review, renew, and extend their commitment as change agents to the moral purpose of teaching, and by which they acquire and critically develop the knowledge, skills, and emotional intelligence necessary for good professional thinking, planning, and practice with children, young people, and colleagues across the whole of their teaching careers (p. 4). Furthermore, Day and Sachs (2004) defined 'continuing professional development' (CPD) as all the activities that teachers engage in through the course of their careers which are designed to enhance their work.

The continuous acquisition of knowledge is critical to the development of professionals in various work environments (Boyle, Lamprianou & Boyle, 2005). Continuous Professional Development (PD) is " a comprehensive, sustained, and intensive approach to improving teachers and principals' effectiveness in raising student achievement, and may be supported by activities such as courses, workshops, institutes, networks, and conferences" (Wei, Darling-Hammond, Andree, Richardson & Orphanos, 2009, p.4). The push for educational reform and the recognition of the need for professional development has led to the understanding that schools are only as successful as the teachers and administrators working there (Guskey, 2002). Commenting on the role effective teachers play in achieving a nation's educational goals, Opfer and Pedder, (2011) revealed that for student learning to improve, there is the need for a route for effective professional learning engagements for

teachers whiles in the teaching profession. Thus, teachers' academic qualifications, content knowledge, professional skills and competencies, as well as depth of commitment for the work keep changing with time, however one of the game changer usually is the CPD programmes that teachers undergo. (Sparks, 2002). Also, teachers who are found to be efficient and effective are teachers who have the full suite of experience and expertise to bring about quality education at the time their professional services are most needed (Kaff, 2004; Browell, 2000).

According to Kumar (2015), professional development (PD) is a means of helping employees in the workplace to understand their environment and job, and to perform better. It is a lifelong process that involves skill and expertise advancement to succeed in a profession, and it includes various learning opportunities such as academic degrees, formal coursework, conferences, and informal practice-based learning (NAIFA, 2016). The term "professional development" can be used to refer to formal processes such as conferences, seminars, and workshops, as well as informal contexts such as discussions among colleagues, reading and research, and learning from peers (Mizzel, 2010).

In education, professional development for educators can refer to a wide range of specialized training, formal education, or advanced professional learning to improve their professional knowledge, competence, skills, and effectiveness (Hidden Curriculum, 2014). Teacher professional development is defined as activities that develop an individual's skills, knowledge, expertise, and other characteristics as a teacher (OECD, 2019). It is also viewed as a comprehensive, sustained, intensive, and collaborative approach to improving teachers' and principals' effectiveness in raising student achievement (Slabine, 2011). Professional development for early childhood

49

education involves facilitated teaching and learning experiences designed to support the acquisition of professional knowledge, skills, and dispositions, as well as their application in practice (NPDCI, 2008).

Professional development can be funded by district, school, or state budgets and programmes, or it may be supported by a foundation grant or other private funding source. It may range from a one-day conference to a multi-year advanced-degree programme and may be delivered in person or online, one-on-one or in group situations, and led and facilitated by educators within a school or provided by outside consultants or organizations hired by a school or district (Khy, 2017).

In summary, professional development is a means of helping individuals understand their work environment and job better and to perform better. It is a lifelong process that includes various learning opportunities and can be formal or informal. In education, it refers to a comprehensive, sustained, and collaborative approach to improving educators' professional knowledge, competence, skills, and effectiveness. Professional development can range from short-term courses to advanced degree programs and may be delivered in person or online.

2.3.1 Background of Continuous Professional Development

Although it has widely been acknowledged that Continuing Professional Development (CPD) is one of most important factors in enhancing educational quality (e.g. Cordingley, 2015), there are numerous different understandings of professional development (Ganser, 2000; Demirkasımoğlu, 2010; Evans, 2011). In line with this, Evans (2002, p. 128) argued that research on defining the concept of professional development has been 'neglected'. As a result, various similar but different concepts have been employed together in educational research (Bolam & McMahon, 2004).

According to the Thesaurus of Education Resources Information Center (ERIC) database, professional development (PD) refers to "activities to enhance professional career growth." Such activities may include individual development, continuing education, and in-service education, as well as curriculum writing, peer collaboration, study groups and peer coaching (Hammond, 1990). Fullan (1991) expands the definition to include "the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement" (p. 326).

Other more recent scholarly studies included compelling research about the significance of professional development about both teacher and student academic performance.

In support, Kedro and Short 's (2004) study of long-term Continuous Professional Development (CPD) found that the longer the model is in place, the more teachers responded that they had received adequate training. This means that professional development in education should be continuous and not static. Other studies contended that professional development could be viewed as lifelong learning which enhances the social and democratic participation of humanity in the workforce (Basharat, Iqbal & Bibi, 2011; Fenwick, 2004). Noting the importance of professional development in achievement, Sparks and Hirsh (2000) reported that two-thirds of teachers used three or more activities introduced in professional development compared with a third who did not receive professional development.

The Urban Institute (Clewell, 2007) suggested that professional development should be linked to curriculum knowledge and to how students learn. Accordingly, competencies such as content knowledge influenced practice and enhanced by professional development (Kaslow, 2004; Stoltenberg, 2005). Instead of providing

51

training and techniques or classroom management for teachers, administrators look to features of professional development that promoted students' academic performance/academic growth such as focusing on content, creating coherence, enacting sustainability, and responding to contextual factors (Hochberg & Desimone, 2010; Schlechty, 2002).

According to a study by Williams, Tabernik and Krivak (2009), targeted continuous professional development promotes improvement gains in achievement as measured by student academic performance.

Opposite of the focus on reform and accountability, recent research revealed that the focus of professional development should be to respond to diversity by creating professional development opportunities that speak to the need for inclusive district, school, and classroom practices (Kose & Lim, 2010). However, Fauske and Raybould (2005) suggested that organizational structures in schools do not provide opportunities for educators to interact and share understanding.

In support of these findings, Marshall and Oliva (2010) agreed that some policies and decisions about professional development do not utilize social justice methods in the development of teachers. Lindstrom and Speck (2004), in their landmark study, created a rubric for high quality professional development that included both focus on content knowledge and focus on collaboration and sharing. In response to these studies, Continuous Professional Development (CPD) could be seen as having an influence for teacher and student academic performance when socially just methods of involvement are embraced by leaders.

Professional Development (PD) is simply a technique of assisting people in the workplace to have a greater understanding of their working environment, the job they perform, and how to do it better (Kumar, Subramaniam & Naik, 2015). The growth of abilities or knowledge to thrive in a given profession, notably via continual education, is a continuous process that occurs throughout our working life. It covers a wide range of supported learning experiences, from academic degrees to formal coursework, conferences, and informal learning chances in the workplace. Continuous professional development (CPD) is a phrase used to describe all of the interventions that teachers participate in throughout their careers. CPD encompasses all activities that have an influence in the classroom. The goal of CPD is to improve educators' job performance in the classroom and raise students' academic accomplishment. Effective professional development programs include instructors in learning activities that are similar to those they could do with their students and encourage them to start their own learning forums. Schools are increasingly being viewed as learning institutions, which enable instructors to share their academic abilities and practices in a structured manner (Bacchus & Grove, 1996). The principles of continuous professional growth, according to Mekonnen (2014), arose from the idea that self-reflection and teamwork are necessary ingredients for developing teacher competence. Although several researchers have defined CPD differently, they all express the same concept. In the words of Day (1999), the term continuing professional development refers to "all the activities in which teachers hold during the course of a career which are designed to enhance their work" (p. 3). Continual professional development practices are educational activities that one engages in with the aim of developing knowledge and skills in order to improve their classroom activities. On the other hand, CPD according to Bubb and Early is an evolving phase that expands on original

53

teacher preparation and induction programs throughout the course of a teacher's career. In support, Gray (2005) opines that CPD embraces the idea that individuals aim for continuous improvement in their professional skills and knowledge beyond the basic training initially required to carry out the job. CPD can help to strengthen the organization's operations as well as instructors' professional qualifications. Richardson (2003) published a list of characteristics associated with effective professional development stating that such programmes would optically be: "statewide, long term with follow-up; encourage collegiality; Encourage and grow agreement among participants; provide a responsive administration; have sufficient funds for materials, outside speakers, replacement teachers, and so on: encourage and develop agreement among participants; consider participants' current values and practices; and use outside facilitators / personnel development. According to Adagiri (2014), there are six (6) types of CPD activities. These are workshops, mentoring, collaborative activities, action research, conferences and higher education courses/programs. Professional learning plans, in essence, are standardized and unstructured lessons attended by instructors to improve their teaching practices. In other words, until instructors are trained to engage in high-bandwidth instructional endeavors, the basic task of supporting individuals in learning will be ineffective. The quality of teachers has a significant influence on student learning and accomplishment. Recent studies have shown that student achievement relies predominantly on teacher professionalism (Meister, 2010; Opfer & Pedder, 2011). According to Hattie (2009), out of the 150 factors which influence learning, CPD is ranked 19th. In principle, successful CPD leads to improved instruction and, as a result, greater learning and academic accomplishment for students.

2.3.2 The Need for Continuous Professional Development

The need for Professional development is now recognized as a vital component necessary to increase the quality of education provided in schools (Meester, De Cock, Langie & Dehaene, 2021). Fullan (2007) expands the definition to include "the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement" (p. 326). When considering the meaning of CPD in the technological age, Grant (1996) proposes a broader definition that includes the use of technology to foster teacher growth, and this goes beyond the word "training," with its consequences of acquiring skills, to include formal and informal means of assisting teachers not only in learning new skills, but also in developing new insights into pedagogy and their own practice, and in exploring new or advanced understandings of consistent. When people talk about "professional development," they usually mean a scheduled event like a conference, seminar, or workshop; collaborative learning among coworkers; or a college or university course.

Professional development initiatives seek to improve student learning through systematic efforts (Diaz-Maggioli, 2004; Guskey, 2002). It offers an opportunity to provide teachers with additional training to meet established expectations (Shaffer & Thomas-Brown, 2015). These activities are designed to create a change in teacher practices, modify the attitudes and beliefs of teachers, and increase the learning outcomes of students (Guskey, 2002). Continuous Professional development can occur in formal settings (e.g., national conferences, seminars) and informal settings (e.g., teacher discussions) (Desimone, 2011). In-Service Education and Training are examples of Continuous Professional Development (CPD). Professional development can support graduate teachers by addressing the gap between the knowledge and skills required and that acquired through their preparation programs (Birman, Desimone,

Porter & Garet, 2000; MacPhail, 2011). "Professional development extends beyond the word 'training,' with its consequences of acquiring skills, to include formal and informal means of assisting teachers not only in learning new skills, but also in developing new insights into pedagogy and their own practice, and in exploring new or advanced understandings of content and tools." A large number of studies which examined the role of the teacher regarding student success have found that an effective teacher increases student achievement more than any other factor (Marzano, 2006). As a result, promoting teacher learning and changing teacher practices is important. In an educational atmosphere where teachers are expected to teach students high standards at all times, it is critical for each person involved in the educational process to be a lifelong learner (Sparks and Hirsh, 2000).

Continuous Professional Development is a crucial part of teacher's leadership development. The needs for teachers to be regularly updated and developed continually to better their professional capabilities as regarding instructional delivery in their subject knowledge cannot be undermined. The widespread agreement that the provision of effective and appropriate forms of continuing professional development (CPD) for teachers is a key factor in improving the quality of education (Kelly, 2006; Desimone, 2011; Dadds, 2014). Teachers, like other professions, must pursue professional development in order to rely primarily on the entry-level abilities with which they begin their careers. Their effectiveness is assessed or judged by students' academic success. Professional development for teachers helps these students acquire specialized and new skills, concepts, and knowledge to better their teaching and learning in their topics. Teachers are to be regularly developed to teach effectively. Thus efficiency shows from their learners' academic performance. Professional

development provides an avenue for educators to improve their teaching practices (Lawless & Pellegrino, 2007).

The need for teacher Continuous Professional Development in Ghana can best be comprehended when perceived against the background of the caliber of teachers in most Junior High Schools. Some schools in vulnerable situations are staffed with student teachers who do not understand the substance of the syllabi. Since teachers are assigned to individual classes at the primary level, they are expected to teach all subjects according to the time table. Even some professionally trained teachers who do not have command over certain subjects areas tend to skip some topics in the syllabus. For instance at the University of Education, Winneba, University of Cape Coast and the University For Development Studies, the Basic Education Department makes students teachers to specialize in either Primary or Junior High Education. With this specialization, teachers are trained to master various subjects in both content and methodology. Preparing for professional service is exacting but no professional could practice without renewing himself regularly and systematically not just in knowledge and techniques but in his understanding of others and himself as well. In effect the professional teacher would need to update his/her knowledge to enhance their professional competency.

Professional development is to train teachers to provide high-quality instruction to students. Rotermund, DeRoche & Ottem, (2017) have identified professional development as an opportunity for teachers to "update their knowledge, sharpen their skills, and acquire new teaching techniques, with the intent of enhancing the quality of teaching and learning" (p. 1).When teachers refine their skills, they can transfer them to the classroom, which in turn improves student learning (Rotermund et al.,

57

2017). High-quality professional development has a "noticeable impact on teachers' work, both in and out of the classroom" (Villegas-Reimers, 2003, p. 19) and is "often seen as vital to school success and teacher satisfaction" (Rebora, 2009).

In USA, Akiba and Liang (2016) research discovered that teacher-driven research activities such as professional conference presentation and participation were related to student success development in mathematics. Similarly, a study conducted in South Africa by Iheanachor (2007) demonstrated a substantial beneficial association between teachers' continuing professional development and pupils' academic success in mathematics. More than 60% of teachers in Ghana, according to Essel et al. (2009), are in favour of receiving additional training, developing new attitudes and skills to help them excel in their teaching profession, and sharing their newly acquired knowledge with other colleagues and pupils/students they teach. District may improve student academic achievement by offering high-quality professional development to their schools, classrooms, and teachers.
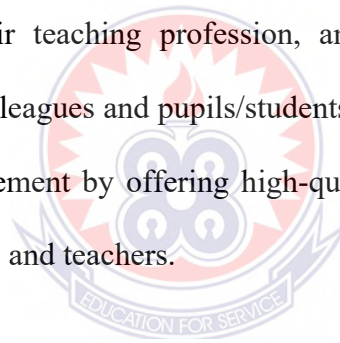
Professional development offers opportunities for teachers to obtain a broader and deeper skill set of the subject areas taught (Lawless & Pellegrino, 2007). Furthermore, these activities enable educators to devise strategies for implementing new teaching practices in the classroom. The public's expectations of teachers' roles have shifted in response to globalization and increased accountability demands. Higher demands on CPD are a result of teachers' shifting duties as a result of changing community requirements and expectations. With the rise of knowledge-based economy, there has been a paradigm shift of teachers from being transmitters of knowledge to facilitators of knowledge, from traditional 'followership' to 'leadership' roles in dealing with rapid educational changes (Frost, Durrant, Head & Holden, 2000). Much literature

claimed that successful implementation of new educational policies, reforms or innovations depends on whether teachers are adequately prepared and equipped by means of initial retraining and if they realize the importance of improving their practice by means of CPD (Coetzer, 2001; Earley and Bubb, 2004). Certainly CPD is an essential component of successful school level change and development (Antypas, 2021).

2.4 How quality education can be achieved

Several definitions have been put forward on the concept of quality in education, testifying to the difficulty and multi-dimensional nature of the concept (Unicef, 2000).

According to UNESCO (2007), education was formally recognized as a human right since the adoption of the universal declaration of human right in 1948. In 2000, the Dakar framework for action declared that access to quality education was the right of every child. It is affirmed that quality education was at the heart of education.

Quality in education is difficult to define in Ghana, as it is worldwide. It becomes much more challenging when it is thought of in terms of a specific facet of education, because all of the characteristics associated with educational excellence are interconnected (Ankomah et al. 2005). While some people think of education quality in terms of resource input, others think of it in terms of positive results like getting excellent marks after school. However, as defined by the UNESCO education quality framework, several variables are frequently believed to be crucial to optimal educational results.

These factors include instructor quality, ease of access to educational materials, a supportive learning environment, learner background, and an evaluation mechanism to track students' progress toward the stated educational goal. Teachers in Ghana must be subjected to appropriate professional development programs in order for educational leaders, academics, service providers, policymakers, and other stakeholders to achieve and maintain quality education, according to the UNESCO education quality framework, which includes teacher quality. Teachers' topic mastery improves as a result of the knowledge received from Continuing Professional Development. Experienced facilitators should be incorporated in training activities and multitask instructors' intelligences to problem - solving skills, which increases their subject area comprehension. Powerful professional development has been found to result in an increase in teacher knowledge and result in a change in teaching practices (Stewart, 2014). The concept of teacher quality is one of the decisive factors influencing pupils 'learning outcomes (Wenglinsky, 2000; Wiswall, 2013). According to Darling-Hammond (2009) and Rowe (2003), teacher quality has much more significant impacts than that of pupils' background on pupils' learning outcomes. Enhancing teacher quality, therefore, has become an important issue for teacher education (Koedel, Parsons, Podgursky & Ehlert, 2015).

2.5 Concept of Academic Performance

Academic performance by Cambridge dictionary of English is described as a school's, college's, university's, individual's, or group's ability to succeed when assigned a learning assignment or operation, or one's performance on standardized tests in academic pursuits Academic efficiency, according to Otoo (2007), is the ability to succeed when one is tested for what one has been told. Academic achievement is connected to material and intellect, which indicates that academic performance is

governed by the capacity of the learner. Students' academic performance must be the driving factor for instructors to grow on a regular basis. Academic accomplishment is assessed by a student's grade point average (GPA). Although class participation and contribution can help establish the quality of a student's work, the most frequent way to evaluate a student's academic success is through written examination. Students in Ghana are recommended for continued study or advancement from one level to the next based on their grades or marks from academic practice.

Academic performance basically connotes a student's attainment in a learning situation. Everyone wants to excel in one way or the other and this could be directed towards academic, occupation and social achievement. The academic performance of a student may be high, average, good, poor or low. Academic performance therefore is largely identified by a range of statistical indictors. Stanley (2004), supported this argument and reported that performance is the level of attainment of a person in an examination, that is, how an individual is able to demonstrate his/her abilities in an examination. Performance has been regarded as a measure of educational output (Adeyemi, 2006).

Teachers will be introduced to a range of technological techniques that can help or obstruct progress in all areas; Ghana wishes to be technologically trained in the same way as other developed countries and to really maintain her "giant" of Africa title. The needs of teachers around the discipline for empowerment by intensive and well-planned varieties of Continued Professional Development (CPD) should not be underestimated. The effort for ongoing professional development for teachers in all Ghanaian schools will compel other African countries to adopt same.

2.6 Methods of Continuous Professional Development

The approaches listed below are the most commonly mentioned in contemporary research and publications. More study should be performed to determine the nature, if any, of the link between each unique strategy and student academic success. Municipalities can choose from a variety of career development techniques, but not all of them adhere to the standards for successful staff development, which include,

1. **One, In-service training**: This method of professional development may present differently across District's; however, the purpose of an in-service training is to train teachers who are currently employed by the District (Villegas-Reimers, 2003). Like other professional development methods, in-service trainings are only viewed as effective when they are part of a long-term plan, and follow-up sessions are provided (Darling-Hammond & Richardson 2009). Districts often bring in experts or consultants to lead these trainings. Guskey and Yoon (2009) have found that schools that used experts as presenters witnessed more improvements in student performance because of the experts' creditability and platform for reaching the staff. However, Guskey and Yoon (2009) have disagreed, stating, "one of the successful efforts used a train-the-trainer approach, peer coaching, collaborative problem solving, or other forms of school-based professional learning" (p. 496).

2. **Out-of-District workshops**: When implementing effective professional development, sustainable learning with a follow-up aspect is essential to the learning process. Workshops are often viewed as "disconnected from practice" (Darling-Hammond et al., 2009, p. 9), "single-shot, one-day workshops that often make teacher professional development 'intellectually superficial'" (Yoon, Duncan, Lee, Scarloss & Shapley, 2007), or an "ineffective 'drive-by'" approach

(Darling Hammond & Richardson, 2009, p. 1). Another study has claimed that 9 out of 10 teachers attended such single-shot workshops with no feedback or follow-up (Darling-Hammond et al., 2009).

3. **Online learning**: As the 21st century progresses, online learning is becoming more common in schools. With an online learning method, professional development can be achieved anywhere and at any time through the use of technology (Rice, 2017). Through online learning, teachers can access content and classes as they choose (Rice, 2017). Mizell (2010) and Rice (2017) have found that online learning is a more isolated experience that lacks collaborative opportunities.

4. **Job-embedded professional development**: Based on previously mentioned findings and government mandates, job-embedded professional development meets the criteria for an effective professional development method. This method provides teachers with formal and informal collaborative opportunities with colleagues without the need to leave their buildings (Calvert, 2016; Croft et al., 2010; Darling-Hammond et al., 2009; Darling-Hammond & Richardson, 2009). Unlike in other models, teachers can receive immediate feedback and coaching and engage in self-driven learning, which is critical as they implement new practices (Croft, Coggshall, Dolan, Powers & Killion, 2010; Guskey & Yoon, 2009).

5. **Professional learning community**: Like job-embedded professional development, specifically, they "redress teacher isolation, create shared teacher responsibility for all students and expose teachers to instructional strategies or knowledge they did not have access to previously" (Croft et al., 2010). These professional communities grant teachers the autonomy to facilitate their own

63

learning while also promoting teamwork (Green & Allen, 2015; Kennedy, 2016). This method is heavily collaborative and team oriented, though research has found limited evidence to promote reflection on personal practices and experiences (Blankenship & Ruona, 2007).

6. **Site-based coaching**: Another site-based professional development method that is linked to enhancing teacher performance is coaching (Linder, 2011; Polly, 2011). Coaching offers a unique opportunity for staff developers to tailor professional learning to teachers' needs and abilities. This does not happen to only new recruited teachers but those who are still in service.

   A study by Polly (2011) has reported that "the largest adoption of instructional practices occurred with teachers who requested and received extensive classroom-based support" (p. 89). However, teachers who are resistant to change are often lost or forgotten in coaching models. In the study, these teachers seemed to avoid the instructional coach and restricted their work together to avoid the pressures and challenges of implementing new practices (Polly, 2011), this has an influence on the school's long-term aim of improving student academic performance.

7. **Stakeholders and Decision Making**: Planning professional development takes a great amount of time and effort on the part of whomever is in charge of making the important decisions. In recent years, research has revealed that when teachers have control over their learning, staff development is more successful.

2.7 Factors affecting the transfer of training in the workplace.

Organizations, including educational institutions, invest significant amounts of time and money into employee training to improve performance (Grossman & Salas, 2011; Lancaster et al., 2013). However, research indicates that only about 10% to 15% of training content results in behavioral changes in the workplace, indicating a

questionable return on investment (Cromwell & Kolb, 2004; Ford et al., 2018; Blume et al., 2010).

To address this issue, researchers have proposed theoretical frameworks to investigate the variables that directly or indirectly influence trainees' learning and the transfer of training, as well as interventions intended to enhance transfer (Aguinis & Kraiger, 2009). These transfer variables are generally categorized into three areas: trainee characteristics, training design, and work environment (Blume et al., 2010).

The work environment is a critical factor in either facilitating or hindering the effective transfer of training (Alias et al., 2017). Although trainees may be highly motivated individuals who have attended excellent training courses and are keen to use their new skills, constraints in the post-training work environment may prevent them from applying what they have learned in their jobs (Blume et al., 2010; Burke & Hutchins, 2008). Likewise, programs that are designed and delivered effectively will fail to yield positive transfer outcomes when the subsequent work environment does not encourage the use of targeted behaviors (Grossman & Salas, 2011).

Within the work environment, support from supervisors is a powerful determinant of successful transfer of training (Burke & Hutchins, 2008; Yaghi & Bates, 2020). Immediate superiors are in a more proximal position to better understand employee training and developmental needs (Kim et al., 2019). To enhance transfer, Burke and Hutchins (2008) suggest that before the learning experience, supervisors should communicate goals regarding desired performance, the conditions under which performance will be expected to occur on the job, and the criterion of acceptable performance. After the learning experience, trainees should be prompted by their

supervisors to set proximal and distal goals for applying newly acquired competencies in the workplace (Taylor et al., 2005).

Several studies have emphasized that peer support from the organization encourages transfer (Chiaburu & Marinova, 2005; Raliphada et al., 2014). Peer support shows a strong, direct relationship with transfer, as well as an indirect influence through its impact on motivation (Chiaburu & Marinova, 2005). An organizational environment that is open to new ideas and supports and invests in change may also facilitate the transfer process (Botke et al., 2018). Feedback concerning newly acquired knowledge and skills, and how these relate to job performance, increases the probability of transfer to the workplace (Velada et al., 2007).

Moreover, research consistently shows that positive transfer is strengthened when trainees are provided with opportunities to use new learning in their work setting (Lim & Morris, 2006). Thus, trainees need ample opportunities to apply their new skills to the workplace for positive transfer to occur (Burke & Hutchins, 2008). Some studies have also noted the practical conditions in daily work routines that support application in the workplace, such as a reduced workload to allow the practicing of new skills, a short time interval between learning and application, a match between program content and work roles, and the availability of equipment and autonomy necessary to adapt working procedures (Blume et al., 2010; Clarke, 2013). On the other hand, commonly cited work environment barriers to learning transfer include high workloads and a lack of time to apply new learning, limited opportunities

2.8 The Benefits of CPD Programmes on teaching Effectiveness

As asserted by Hammond (1990), professional development (PD) is a key tool that keeps teachers abreast of current issues in education, helps them implement innovations, and their practice. The entire purpose of professional development is to increase teacher quality and student learning for all pupils. In-service programs that are well-organized are one of the most essential strategies to bring about transformation, improve education, and nurture teachers' professional growth and success. The results of school reform efforts depend primarily on the organizational roles CPD provides opportunities for teachers to explore new roles, develop new instructional techniques, refine their practice and broaden themselves both as educators and as individuals.

CPD is aimed to improve educational quality while also developing professional attitudes about education. (Day & Sachs, 2004). CPD activities are developed to assist teachers by providing them with appropriate information and teaching approach based on the recognized objectives and circumstances. It is believed that CPD activities can achieve the highest outcomes when they are structurally and officially planned and carried out with the goal of enhancing personal and professional progress by widening knowledge, skills, positive attitudes, and perspectives. (Collinson, 2000) and developing personal and professional effectiveness and increasing job satisfaction (Madden & Mitchell, 1993; Gordon, 2004. The public's expectations of teachers' duties have shifted in reaction to globalization and increased accountability demands. Higher demands on CPD are due to changing roles of teachers as a result of changing requirements and expectations from the communities. With the rise of knowledge-based economy, there has been a paradigm shift of teachers from being transmitters of

knowledge to facilitators of knowledge, from traditional 'followership' to 'leadership' roles in dealing with rapid educational changes (Frost et al., 2000).

The goal of continuing education and professional development for teachers is to enhance the quality of life in personal and social contexts. It is important for adults to become autonomous learners and take control of their own learning, which can be achieved through continuing education. For teachers, their involvement in educational communities is essential for their professional development, and they play a variety of roles in the classroom, school, and society. Expectations can influence their behavior and professional development is necessary to help them keep up with the changing requirements of an ever-evolving society.

Therefore, continuing education encompasses all forms of educative experiences needed by individuals based on their interests, comprehension level, abilities, and changing roles and responsibilities throughout their lives. In today's world, continuing education is essential as society's changing nature requires citizens to gain new skills and knowledge throughout their lives. This is particularly important for working adults, including teachers, who are essential in delivering education. Failure to continually learn and adapt renders one obsolete.

Again, Continuous Professional Development is to improve the performance of teachers in the classroom and raise student achievement. It is a career-long process of improving knowledge, skills and attitudes centred on the local context and, particularly, classroom practice. The major principles of continuous teachers' professional development are drawn from the works of Leu (2004), as well as Gray (2005).

1. Professional development content focuses on what students will learn and how to solve the many challenges students may encounter while learning the topic.

2. Professional development should be based on analyses of the differences between (a) actual student performance and (b) goals and standards for student learning.

3. Professional development should involve teachers in identifying what they need to learn and in developing the learning experiences in which they will be involved.

4. Professional development should be predominantly school-based and integrated into teachers' day-to-day work.

5. Most professional development should be organized around collaborative problem solving.

6. Professional development should be constant and continuing, comprising follow-up and assistance for more learning, as well as help from sources outside of the school that can give required resources and fresh views.

7. Professional development should incorporate evaluation by multiple sources of information on (a) outcomes for students and (b) the instruction and other processes involved in implementing lessons learned through professional development.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The previous chapter evaluated relevant literature for this research. The approach (research processes and techniques) utilized to provide data to study them is described in this chapter. The descriptive concerns that were taken into consideration were as follows: the research approach and design, population and sampling, instruments and data collection procedure, and a description of how the data were analyzed.

3.1 Research Approach

A mixed-method approach was employed as the framework for this research to build an "in-depth, contextual understanding" of the CPD experiences and how it influences students' academic performance for a participating group of teachers and head teachers from two schools (Creswell, Hansen, Clark Plano, & Morales, 2007, p. 245).

The discourse surrounding the merits of quantitative and qualitative research paradigms has stirred fervent debates. It is underscored that the selection of a particular approach should intricately hinge upon the nuances of the research topic at hand, lacking any steadfast principled grounds that would dictate an unequivocal choice between the quantitative and qualitative realms (Silverman, 1993). The emerging trend of employing a composite methodology, amalgamating both quantitative and qualitative techniques, emanates from the vantage point of pragmatic inquiry. Proponents of pragmatism contend that the array of methods furnished by both the positivist (quantitative) and interpretivist (qualitative) paradigms should be synergistically harnessed to glean a more comprehensive understanding of intricate phenomena (Howe, 1988). Pragmatism posits that both subjective and objective

70

perspectives coexist in research, thereby warranting the utilization of any means necessary to achieve the desired outcome (Onwuegbuzie, 2002). From the ontological standpoint espoused by pragmatism, it is posited that an intricate tapestry of multiple realities interweaves to form a cohesive whole (Lincoln and Guba, 1985; Creswell, 1994). The bedrock of knowledge claims emerges from actions, contexts, and repercussions rather than preceding conditions, as is the stance of post-positivism. Pragmatists steer their gaze towards the 'what' and 'how' of research, contingent on the intended outcomes they wish to attain (Creswell, 1994; 2003). Within the purview of this present inquiry, a multifaceted methodology is consequently elected, in consonance with the inherent essence of the study, to meticulously unearth the quantitative and qualitative dimensions inherent to the challenges in teachers' continuing professional development (CPD) and their consequent impacts on the academic performance of students.

3.2 Research Design

In simple terms, the research design is a plan of the methods and procedures that is used by the researchers to collect and analyze data (Shukla, 2008:29). A sequential explanatory design is useful to capture the best of both quantitative and qualitative approaches to both generalize the findings to a population and develop a detailed view of the meaning of a phenomenon or concept being studied (Creswell, 2003).

The research used a sequential design. It was chosen because it allows for mixed method study by combining quantitative and qualitative research methodologies. According to Gorard and Taylor, (2004) the supposed distinction between qualitative and quantitative evidence refer to distinct methods of analysis rather than distinct paradigms. Quantitative data was obtained from a questionnaire through closed-ended

71

items whiles qualitative data was obtained through an interview with an interview guide. To aid in the gathering of data, patterns were extracted, and comparisons and interpretations were made. According to Lokesh (1984), a survey design was also adopted.

3.3 Site and sample characteristics

The Research was carried out in the Sagnarigu district of the Northern Region of Ghana. In the first half of 2012, the Sagnarigu District was one of six (6) newly created districts in the Northern Region. It was carved out of the Tamale Metropolis by Legislative Instrument (LI) 2066. Among the reasons for its establishment was to focus development efforts on the less developed communities north and west of Tamale Metropolis (now Sagnarigu) than the urban areas. There are 79 communities in the Sagnarigu District, including 20 urban, 6 peri-urban, and 53 rural communities.

The district is endowed with seventy-six (76) Junior High Schools. Most teachers in this district have been at their current post for the past three years. Even though the district is one of the youngest in the region, it has always been trying its best to raise their students' performance in the Basic Education Certificate Examination (BECE) every year; hence, the need to upgrade its teachers professionally.

The district shares boundaries with Savelugu municipal to the North, Tamale Municipality to the south and east, Tolon to the west and Kumbungu to the North West. Sixty percent of those 11 and older are literate, compared to forty percent who are not. The proportion of literate males is higher (68.3 %) than that of females (52.0%). About 59.1 percent indicated they could speak and write both English and Ghanaian languages. Of the population aged 3 years and above (135,846) in the

district, 33.7 percent has never attended school, 44.7percent are currently attending and 21.5 percent have attended in the past.
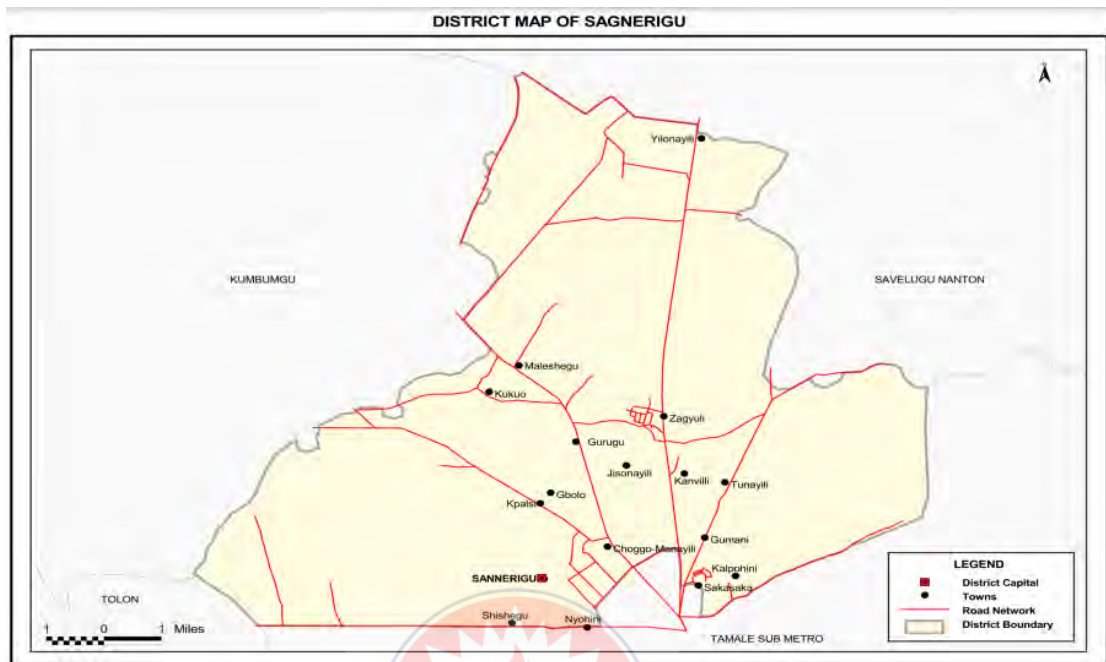
Source: GSS (2010)

Figure 3.1: Map of Sagnarigu District

The proportion of the population residing in urban communities (80.8%) is higher than that living in rural localities (19.1%) of the district (GSS, 2014). The people in the district are mostly peasant farmers and grow crops such as: millet, rice, maize, groundnuts, sorghum and others. Some also involve in petty trading for their livelihood. Majority of the inhabitants in the Sagnarigu district are Muslims with Christian minority and Traditionalists. The parents in the district failure to secure reliable jobs as a result of their low levels of educational attainment make them less able to support the education of their children as expected, resulting in high incidence of illiteracy in the area (NOYED, 2013). As of September 2014, the number of children in the district who are four years old and enrolled in school was 81.5 percent in primary schools, 11.6 percent in secondary schools, 0.7 percent in

73

vocational/technical schools, and 4.6 percent in university institutions (GSS, 2014:65).

3.4 Population for the Study

A Population is the total of all individuals who have certain characteristics that are of interest to a researcher. Population consists of all the subjects the researcher wants to study. It comprises all possible cases (person, objects, events) that constitute a known whole (Ary, Jacobs, and Razavieh, 1972). The population for the study consisted of students, teachers and head teachers of Choggu demonstration and Bishop Junior High Schools (JHS) at Sagnarigu in the Northern Region.

3.4.1 The target population

The total collection of units for whom survey results will be utilized to form inferences is referred to as the target population. As a result, the target population identifies the units for whom the survey's findings are intended to be generalized (Lavrakas 2008). The target population for the study consisted of first, second- and third-year students in Choggu demonstration and Bishop Junior High Schools (JHS). This was made up of JHS1, JHS 2 and JHS 3 students, 122 JHS 1 students, 92 JHS 2 students and 122 JHS 3 students giving a total of 334 students from both public schools respectively. Tables 3.1 and 3.2 show the statistics of the entire population of students of the two school's understudy.

The study targeted two JHS in the Sagnarigu district. This is because they are all within minutes' drive and within the Sagnarigu district and its immediate environment of Choggu suburban area. The study took the teachers, students and the head teachers in the target schools as the target population. Teachers had to have spent at least a year at the same school. The head teachers are being targeted because they are crucial

since they have the ability to monitor, coordinate, and organize curriculum teaching needs in the schools, as well as having the opportunity to participate in and profit from staff development programs. They are individuals who take part in and benefit from professional development events for employees.

Table 3.1: Students population of Choggu demonstration

Population	Number	Percentages
Third Year	82	38%
Second Year	52	24%
First Year	82	38%
Total	216	100%

 Source: Field survey (2021)

Table 3.2: Students population of Bishop JHS

Population	Number	Percentages
Third Year	40	33%
Second Year	40	33%
First Year	40	34%
Total	120	100%

Source: Field survey (2021).

3.5 Sample Size

Sample is a subset of the population (Ary et al., 1972). The sampling frame defines a set of elements from which a researcher can select a sample of the target population. Given (2008) defines it as the list of all those within a population who can be sampled, and may include individuals, households or institution."

3.5.1 Sample size estimation and sampling method

To attain a representative sample size, this study adopted the Taro Yamane (1967)

formula which is given as; $\quad n = \dfrac{N}{K + N(e)^2}$

Where n is the desired sample size, N is the population size, K is constant and e is the

acceptable margin of error (0.05) to obtain a representative sample.

The total population of students in the Sagnariagu district is 1,395.

Thus, students sample size (n) $= \dfrac{1,395}{1 + 1,395\,(0.05)^2} = 310,$

Sampling is the process of selecting a group of subjects for a study in such a way that

the individuals represent the larger group from which they were selected (Ary, Jacobs,

& Razavieh, 1972).

Therefore, a proportionate sampling method based on their number was used to select

a total sample size of 336 comprising of One Hundred and Twenty Two (122) JHS 3

students, Ninety two (92) JHS 2 students and One Hundred and Twenty Two (122)

JHS 1 students respectively in the two public junior high schools in the Sagnarigu

District. Then a simple random sampling was applied to select each student. Due to

the low sample size for teachers and head teachers all of them were selected for the

interview. There were 16 teachers in total; 8 from each school and 4 head teachers

which included head and assistant teachers from each school.

3.6.1 Data Collection Instruments

The research was conducted using structured questionnaires including both closed and open-ended questions. The data collection instruments had different sections to solicit different types of data.

3.6.2 Instrumentation

The data for this study was gathered using a questionnaire with five sections that elicited information on I personal bio data, (ii) courses available for teachers' professional development in the Sagnarigu District, (iii) lesson delivery methods used by teachers, (iv) teachers' competence level, and (v) factors affecting teachers' performance after professional development training. The items in the questionnaires comprised closed-ended and open-ended questions. Closed-ended questions seek for objective responses while open-ended questions seek subjective responses. Questionnaires were used because they can ensure anonymity, permit use of standardized questions, have uniform procedures, provide time for respondents to think about responses read and write independently and are easy to score.

3.6.3 Interview

An interview is a form of questioning characterized by the fact that it employs verbal questioning as its principal technique of data collection. Interviewing refers to structured or unstructured verbal communication between the researcher and the participants, in which information is presented to the researcher (University of Cape Coast, 2005). Given (2008) explains interview as a conversational practice where knowledge is produced through the interaction between an interviewer and an interviewee or a group of interviewees. It can be formally conducted in surveys, through the internet, over the telephone, or in face to-face interaction, and they can be

77

informally conducted; for example, as part of ethnographic fieldwork. It is the careful asking of relevant questions of selected individuals. It is an important way for a researcher to check, verify or refute impressions gained through observation. The methods provide a means to gain information about things that cannot be observed directly.

The replies from the head teachers and assistant head teachers were gathered using Interview Schedules. The researcher employed a combination of open-ended and closed-ended approaches during the interviews. This is because they give detailed information that questionnaires cannot supply. Through contact and actual communication between the researcher and the participant, they supplied sensitive and intimate information. The interview guide was personally designed by the researcher. It contained semi-structured interview items which aimed at eliciting information from head teachers on available continuing education programmes; tutors' attitude regarding available continuing education programmes and employer provided support for staff development programmes.

3.7 Data Collection Procedure

The Researcher moved to the schools, with an introductory letter endorsed by the Head of the Department of Educational Administration and Management from the University of Education, Winneba to access primary data for the research work. Then the introductory letter was sent to the Sagnarigu District Education Office for an official letter to be sent to the heads of these two public schools for the collection of data.

3.7.1 Validity of the questionnaire

The researcher double-checked the instruments for validity before using them. Colleagues in my department, as well as other departments at the University of Education Winneba, and his supervisor aided in the evaluation of the instruments to ensure they captured the intended data. Their input was utilized to enhance the face validity and content validity of the study instruments

3.7.2 Reliability of instrument

A pre-test was conducted at a Gushegu primary school prior to the actual data collection. This school was not included in the sample of schools used in the main research. Personal administration of questionnaires and interview schedules was used to acquire pre-test data. Following the completion of the questionnaire, a discussion with each of the respondents was held to assess if the items were accurately phrased and therefore not susceptible to misinterpretation when presented in the main research.
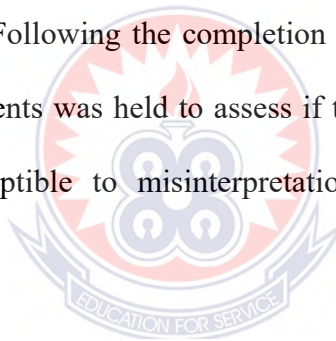
3.8 Data Analysis Procedures

Following the gathering of raw data, the researcher examined and altered it to detect blank gaps or unfilled items, as well as those that may have been answered incorrectly. Teachers' questionnaires were categorized based on the patterns of replies provided by respondents and their homogeneity, as indicated by Mugenda and Mugenda (1999). They were then coded in order to assign magnitude/numbers to the various answers being counted.

The data was analyzed using descriptive and inferential statistics. For demographic factors and closed-ended questionnaire items, frequency tables and charts were created. The Statistical Package for Social Sciences (SPSS) for Windows version was

used to assess descriptive statistics, including frequencies from which percentages could be calculated. Hypothesis testing and suitable inferences were part of inferential statistics. Open-ended elements in surveys and interview schedules were then used to generate narrative replies. The responses were organized in relation to the themes or research questions and from this information, the researcher wrote the narrative and interpretative report in order to explain and reflect the situation as it occurs in the selected schools. This formed the basis of qualitative analysis.

3.9 Ethical Considerations

Ethical considerations have been described as 'a matter of principled sensitivity to the rights of others' (Cavan 1977, cited in Cohen & Hill, 2000: 56). In order to establish credibility, a researcher has to be able to report a conscientious search for alternative themes and patterns (Patton, 2015). The researcher executed the ethical procedures practice by researchers in conducting research, this includes the following:

3.9.1 Ethical issues in the study

There were several ethical issues that were followed in carrying out this study. These included:

a) Anonymity and Confidentiality: The entire participant in the study was assured of the confidential information they were ready to give to the researcher. The confidential issues included the protection of the respondent identity and the information given to the researcher; in achieving this teacher were given numbers which they wrote on their questionnaire sheets instead of their names which will make it difficult for people to identify the respondents. The analysis of the data given by the respondents were collectively discussed

without linking a particular information to a particular individual or group of individuals and their respective school categories;

b) No Harm to the Participants: The researcher in this study throughout did not do anything that could adversely affect any respondent physically, psychologically and emotionally. Questions were basically framed according to the status of the respondents in the study. Thus, no respondent was compelled to answer any question that did not relate to him or her;

c) Voluntary Participation: No single respondent in this exercise was coerced in any form to take part in the study. All respondents who took part in this study did that voluntarily; in order not to violate the principle of informed consent in the social research, letters of introduction were sent to the school authorities to seek permission before the conduct. In these letters the purpose of the study was clearly stated to both the respondents and the school authorities.

d) Deception: The researcher in this study did not use any deceptive tactics to lure the respondents to respond to question he desired from them, but instead, the respondents only answered the questions based on their understanding. All information that the respondent needed were made available to them. The objective of the study and the contribution it will make to them were fully explained, thus the issue of deception will purge for the benefit of the respondent.

e) Confirmability: Confirmability is the last aspect of trustworthiness in qualitative research. It involves ensuring that the findings are driven by the participants rather than by the researcher. I used an audit trail in which I detailed the data collection processes and choices made in regards to coding (Statistics Solutions, 2018).

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Introduction

The approach used to generate data that was evaluated and inferences formed from it was provided in Chapter 3. This chapter provides the data analysis and discussion, and a summary and presentation of the study's key findings based on the goals specified. There are two parts to the data analysis. The following is a list of the demographic features of the respondents, which has been organized and presented in the following order: Academic qualification of teachers, sex, teachers teaching experience, Teacher Academic qualification by gender, sex distribution of students, Age of students. The second, covers the main themes of the research questions raised to guide the study; while the last elucidates the key findings in relation to research objectives.

4.1 Demographic Characteristics of Respondents (Teachers)
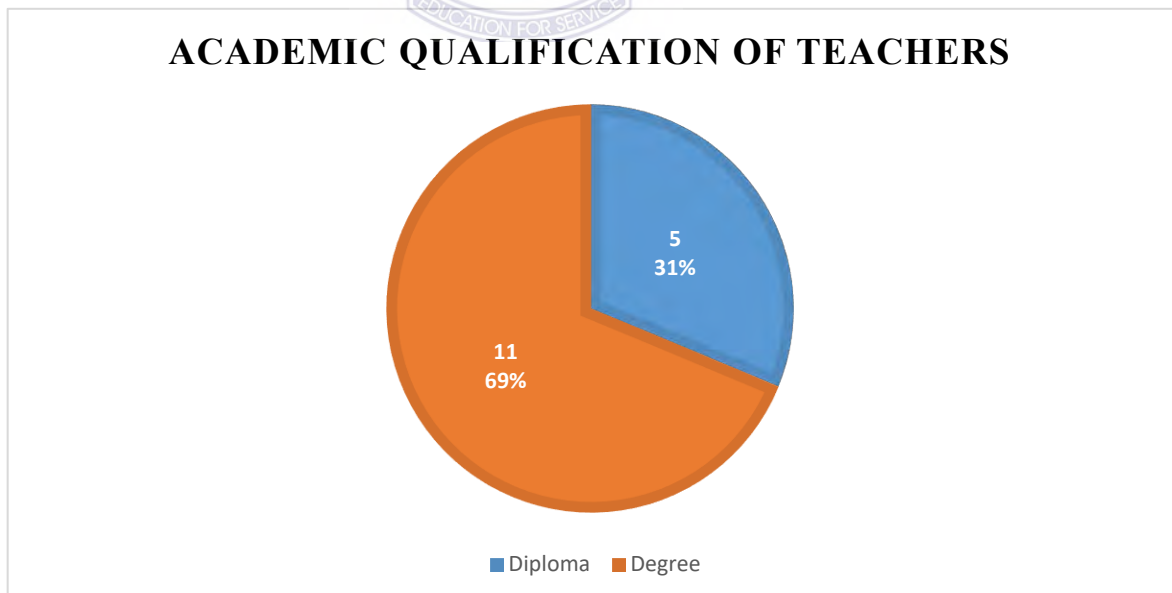
Source: Field survey (2021).

Figure 4.1: Academic qualification of teachers

Figure 4.1 shows that with regard to the academic qualification of teachers (respondents), thirty one percent (31%) had at least a recognized Teachers' Certificate or Diploma. In addition, sixty nine percent (69%) of them had a first degree. This indicated that majority of teachers in the two schools had obtained both first degree and Teachers' Certificate or Diploma. From these statistics, it can be construed that respondents were not just education professionals; but also somewhat with high academic standing.

SEX DISTRIBUTION OF TEACHERS

Source: Field survey (2021).
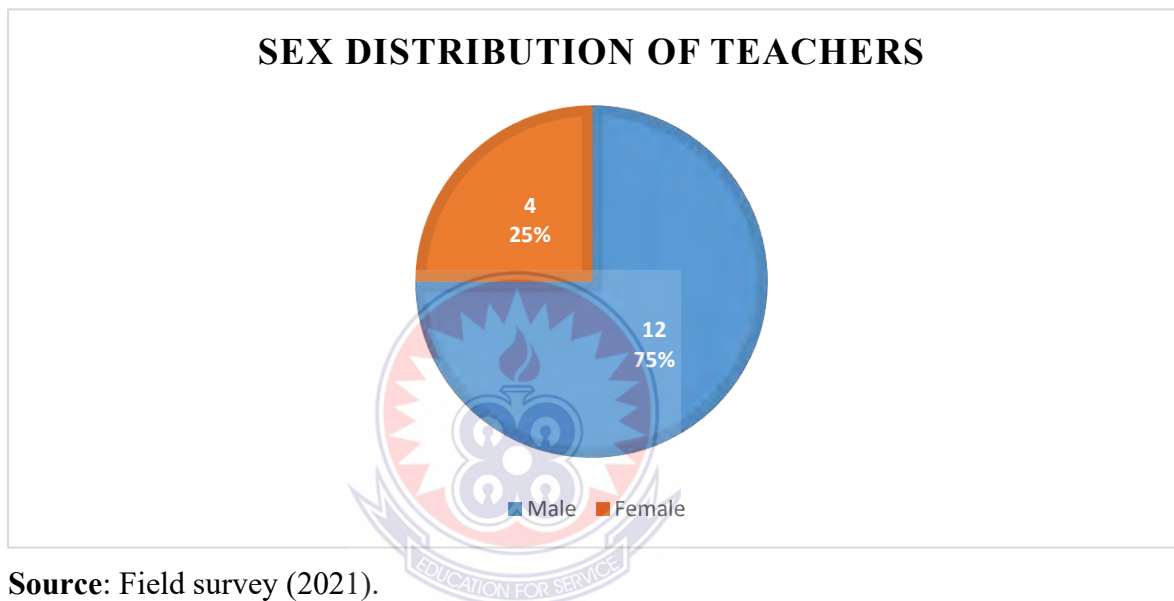
Figure 4.2: Sex distribution of teachers

The results presented in Figure 4.2 indicate that there is a gender inequality among the population of respondents, who are teachers. The data shows that only 25% of respondents were female teachers, while 75% were male teachers, including two male head teachers and one assistant head teacher, which consist of 4%.

This gender imbalance among respondents may have several implications. Firstly, it could be an indication of a larger gender inequality problem within the education system in the study area, which could affect the quality of education provided. Research has shown that having a gender-balanced teaching workforce can lead to

83

better educational outcomes for students, particularly in terms of academic performance and social-emotional development.

Secondly, this gender imbalance among respondents could also affect the diversity of perspectives and experiences shared in the study. If the majority of respondents are male, then their experiences and perspectives may dominate the results, potentially leaving out the experiences and perspectives of female teachers.

Furthermore, this gender imbalance may also reflect broader societal issues related to gender inequality, such as unequal access to education and employment opportunities. If female teachers are underrepresented in the study, it could be a reflection of the challenges they face in accessing education and career opportunities in the education sector.
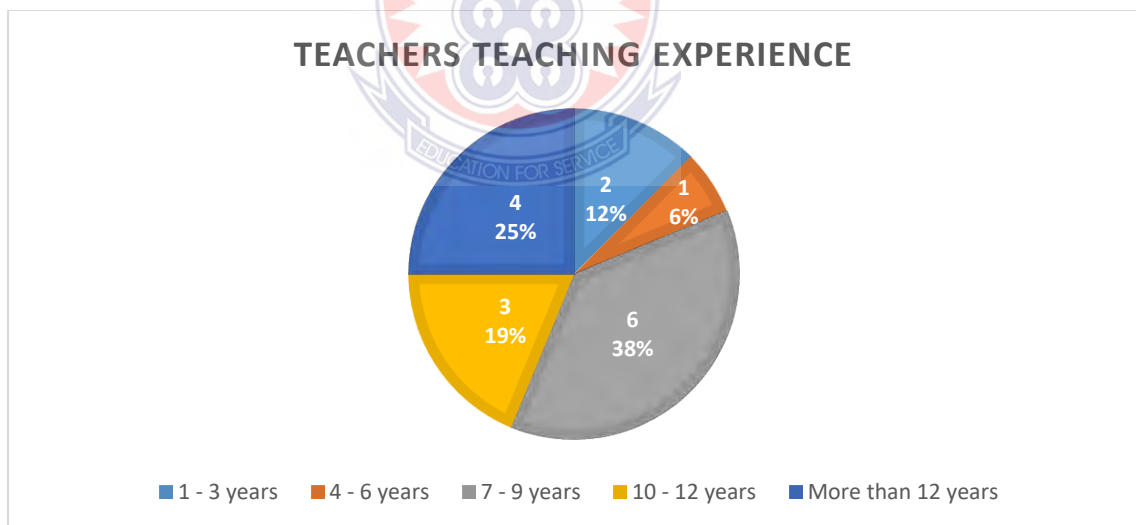
Source: Field survey (2021)

Figure 4.3: Teacher's experience

The results presented in Figure 4.3 provide insights into the number of years that the respondents in the study have been teaching. The data shows that the majority of

84

respondents (38%) have been teaching for between seven and nine years, while 25% have spent more than twelve years in the teaching field. Furthermore, 19% are between 10 and twelve years, 6% are between four and six years, while 12% are between one and three years.

These results have important implications for understanding the professional development needs of teachers in the study area. Moreover, the findings suggest that there may be a need for ongoing professional development opportunities for teachers who have been in the field for more than twelve years. While experienced teachers may have a wealth of knowledge and skills, it is important that they remain up-to-date with current educational practices and innovations.

Additionally, the data indicates that a significant proportion of the respondents have relatively less experience, with 6% of them having between four and six years and 12% having between one and three years. These teachers may benefit from more targeted professional development opportunities that focus on building foundational knowledge and skills to support their development as effective educators.

Table 4.1: Teachers Academic qualification by gender

	Diploma	**Degree**	**Total**
Male	5 (41.7%)	7 (58.3%)	12 (100%)
Female	0 (0.0%)	4 (100%)	4 (100%)
Total	**5 (31.3%)**	**11 (68.7%)**	**16(100%)**

Source: Field survey (2021)

Table 4.1 provides information about the academic qualifications of the respondents in the study, disaggregated by gender. The data shows that 41.7% of the teachers (respondents) had at least a recognized Teachers' Certificate or Diploma, while 58.3% of male teachers had a first degree. Interestingly, none of the female teachers had a recognized Teachers' Certificate or Diploma, but all had a first degree, representing

100%. These results have important implications for understanding the academic standing of the teachers in the study area. Firstly, it suggests that a majority of the teachers in the two schools had obtained both a first degree and Teachers' Certificate or Diploma, indicating a high level of education among the respondents. This suggests that the respondents were not just education professionals, but also individuals with high academic standing, which may have implications for the quality of education provided to students.

Secondly, the data shows a gender difference in the academic qualifications of the respondents. None of the female teachers had a recognized Teachers' Certificate or Diploma, while all had a first degree. This could suggest that female teachers in the study area may have faced greater barriers to obtaining teaching qualifications, which could reflect broader issues related to gender inequality in access to education and employment opportunities.
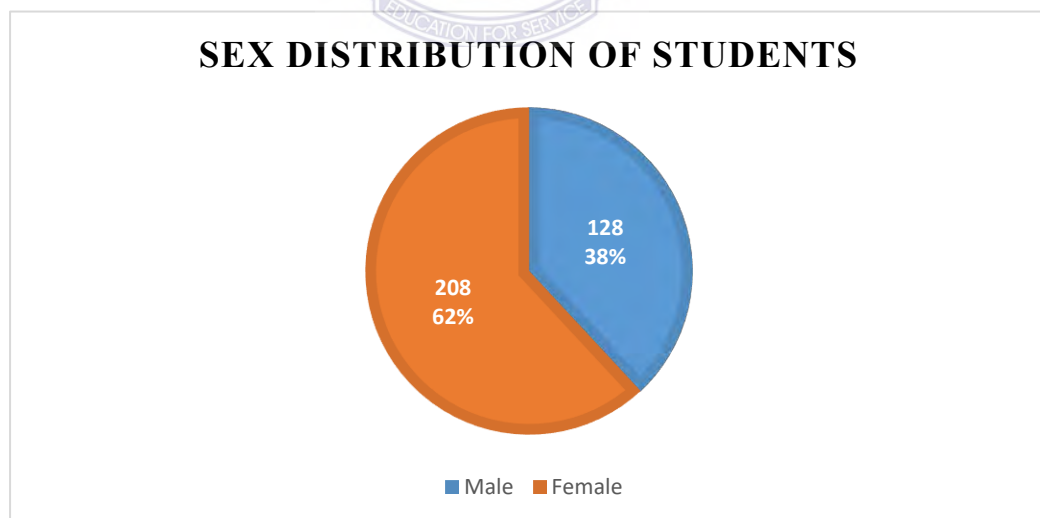
Source: Field survey (2021).
Figure 4.4: Sex distribution of students

The data presented in Figure 4.4 indicates that 38% of the respondents in the study were male students, while 62% were female students. This shows that there is a significant gender imbalance among the student population in the schools where the research was conducted.

The implications of this gender imbalance are significant, and suggest that gender inequality may be present within the educational context. The underrepresentation of male students could suggest that there are barriers to male students' enrollment or retention in schools, which may be related to socio-cultural factors, economic status, or other factors. This gender inequality may have implications for the quality of education provided to students, and may affect both male and female students' academic performance and achievement.

Moreover, the gender imbalance in the student population could have implications for gender dynamics and socialization within the schools. The dominance of female students could contribute to the reinforcement of gender stereotypes and gendered roles, which could have long-term implications for gender equality and women's empowerment.

Table 4.2: Age of students

Variable	Mean	Standard deviation	Minimum	Maximum
Age of students	14.8	1.57	12	22

Source: Field survey (2021).

The data presented in Table 4.2 indicates that the average age of students in the district is approximately 15 years. The low standard deviation of 1.57 suggests that this average is a good representation of the entire student population in the district.

The minimum age of students in the Sagnarigu district is 12 years, while the maximum age is 22 years.

The implications of these findings are significant for understanding the educational context in the district. The fact that the average age of students is 15 suggests that the majority of students are likely in their middle to late teenage years. This has implications for the types of educational programs and interventions that may be most effective in meeting the needs of this population.

Furthermore, the range of ages among students in the district is relatively wide, with a difference of 10 years between the youngest and oldest students. This suggests that there may be significant diversity among students in terms of their developmental stages, educational needs, and life experiences. These differences could impact their learning experiences and may require differentiated educational approaches.

4.2 Research Question 1: What are Teachers Perceptions on CPD Programmes

The school teachers were asked about their perceptions on the Continuous Professional Development (CPD) programs in the district. Their responses to the various perception statements are presented in Table 4.3. Using a four-point Likert scale, perception indices were computed and used to assess the opinion of the teachers. The mean score for each category of statements was used to assess the perception on that category. The overall perception index was also assessed by calculating the overall mean score of the mean scores of the various categories. The overall perception index was 2.795, implying that the teachers had an agreeing perception towards the perception statements about Continuous Professional Development (CPD) in the District.

The respondents expressed their satisfaction with Continuous Professional Development programmes in the District. The mean score for the perception of satisfaction of Continuous Professional Development (CPD) was 2.87, indicating that majority of the respondents had an agreeing perception that they were satisfied with CPD in the District (Table 4.2).

They agreed that information about Continuous Professional Development (CPD) were readily made available for teachers as were information about new CPD programmes. Furthermore, the respondents had a strong agreement to the statement that CPD programmes organized are relevant to subject area.

The teachers were asked about their perceptions on the availability of Continuous Professional Development (CPD) and its influence on students' academic performance. Table 4.3 shows that with regard to the availability of Continuous Professional Development (CPD) seventy five percent (75%) of the respondent indicated that there is the availability of CPD programmes in the school whiles twenty five percent (25 %) disagreed to the fact that there is availability of Continuous Professional Development (CPD) in the school. In addition, approximately seventy percent (69.75%) of the respondents perceived that Continuous Professional Development (CPD) programmes are patronised. More than eighty seven percent (87.5%) perceived that workshop and in-service are made available to teachers and more than sixty eight percent 68.75 perceived that there is satisfaction with the Continuous Professional Development (CPD) programmes respectively.

Table 4.3: Teacher's perceptions on CPD program

Perception statement	SD (1)	Disagree (2)	Agree (3)	SA (4)	Index
CPDP's are available	0 (0)	4 (25)	12 (75)	0 (0)	2.80
CPDP's are patronized	0 (0)	5 (31.25)	11 (68.75)	0 (0)	2.687
Workshop and in-service are available	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.875
Workshop and in-service are patronized	0 (0)	0 (0)	16 (100)	0 (0)	3
CPDP's effect specific changes	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.875
Satisfied with CPDP's	0 (0)	5 (31.25)	11 (68.75)	0 (0)	2.687
Existence of CPD for teacher					***2.812***
Different methods used in teaching	0 (0)	0 (0)	14 (87.5)	2 (12.5)	3.125
TLM's are used	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.875
Different TLM's has positive results on performance	0 (0)	0 (0)	12 (75)	4 (25)	3.25
TLM's use is regularly assessed	0 (0)	0 (0)	7 (43.75)	9 (56.25)	3.562
Pupils understand lessons better and quick	0 (0)	0 (0)	14 (87.5)	2 (12.5)	3.125
Good results achieved during exams	0 (0)	2 (12.5)	7 (43.75)	7 (43.75)	3.312
Performance of teacher's delivery methods					***3.208***
Available information on CPD for teachers	0 (0)	0 (0)	16 (100)	0 (0)	3.00
Information on new CPD programmes	0 (0)	5 (31.25)	11 (68.75)	0 (0)	2.687
The CPD programs are relevant to subject area	0 (0)	2 (12.5)	12 (75)	2 (12.5)	3
Current CPD is relevant to specialization	0 (0)	4 (25)	12 (75)	0 (0)	2.75
Times offered are not convenient for CPD	0 (0)	7 (43.75)	5 (31.25)	4 (25)	2.812
Location offered are not convenient	0 (0)	12 (75)	4 (25)	0 (0)	2.25
Satisfied with CPD currently organized	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.87
Awareness of continuous education opportunities					***2.76***
Mechanism in place to supervise staff development activities	0 (0)	7 (43.75)	9 (56.25)	0 (0)	2.562
Employer provides for CPD activities	0 (0)	7 (43.75)	9 (56.25)	0 (0)	2.562
Employer provision for staff development is satisfactory	0 (0)	4 (25)	12 (75)	0 (0)	2.75
During breaks vacations is the best times to participate in CPD activities	0 (0)	3 (18.75)	4 (25)	9 (56.25)	3.375
Employer provided support for staff development					***2.813***
CPDP's do not address teachers needs	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.875
Training materials are made available for teachers to use	0 (0)	12 (75)	2 (12.5)	2 (12.5)	2.375
Reluctance to apply lessons from trainings	0 (0)	9 (56.25)	7 (43.75)	0 (0)	2.437
Poor targeting of beneficiaries of programs	0 (0)	2 (12.5)	14 (87.5)	0 (0)	2.875
Teachers are to be blamed for poor performance of students over time	7 (43.75)	4 (25)	5 (31.25)	0 (0)	1.875
Officers for CPD programs are to be blamed for poor performance	5 (31.25)	9 (56.25)	2 (12.5)	0 (0)	1.812
Factors affecting teachers' performance after CPD					*2.375*
Overall Perception Index					*2.795*

Source: Field survey (2021).

The teachers were asked about their performance regarding the use of teaching and learning materials. More than eighty seven percent (87.5%) agreed they use different methods in teaching the students and Eighty seven percent (87.5%) agreed to be using different teaching and learning materials (TLM's) in lesson delivery. Meanwhile seventy five percent (75%) of the respondents agreed that using different TLMs has positive results on students' academic performance. More than fifty-six (56.25%) strongly agreed that there is regular assessment to teachers in the use of teaching and learning materials (TLMs). In addition, more than forty three percent (43.75%) of the teachers strongly agreed that good results are achieved during examination.

The term "teaching materials" refers to the resources that teachers use to deliver instruction. Teaching materials can help students learn more effectively and achieve greater success. In an ideal world, teaching materials would be personalized to the topic being taught, the students in the class being taught, and the instructor. Teaching resources exist in a variety of shapes and sizes, but they all have one thing in common: they can help students learn. Learning resources are crucial because they may help students reach higher levels of success by facilitating their learning. A worksheet, for example, may provide a crucial opportunity for a student to practice a new skill learned in class. This method facilitates learning by enabling students to explore facts on their own while also giving repetition. All learning resources, regardless of kind, have a purpose in student learning. The advantages of efficiently employing teaching and learning resources on both teachers and pupils may be lost in schools that participated in the study, as only slightly more than half of instructors use teaching and learning materials in their class delivery.

More than Fifty six percent (56%) of the respondents indicated that there is mechanism in place to supervise staff development activities which the employer has provided to support staff development for teachers. Whiles more than forty three percent (43.75%) of the respondent disagreed that the mechanism in place to supervise staff development activities which is provided by the employer is not adequate for staff development. Again in obtaining opinions on the most useful period/time for teachers to participate in Continuous Professional Development (CPD) activities more than fifty six percent (56.25%) of the respondent strongly agree that for the employer to provide support for staff development they would prefer to participate in Continuous Professional Development (CPD) activities during breaks and vacations insisting it's the best time for such activity whiles twenty five (25%) of the respondents agree to participate in Continuous Professional Development (CPD) activities during breaks and vacations.

When it comes to assessing the data sources' output, the aim was to establish overall perceptions of Continuous Professional Development (CPD) on current practice from teachers. Firstly, the results from the teaching staff were analyzed to discover their perceptions as to the availability of Continuous Professional Development (CPD) programmes as to workshops and in service and whether or not the teachers are satisfied with the professional development courses organized for teachers in the school. Whether teaching and learning materials are used in lesson delivery and if yes does it contribute to the achievement of good results during examination, awareness of continuing education opportunities with excellent about it for the teaching staff and its relevance to the subject area.

And finally, how they agree or disagree about mechanism in place to supervise staff development activities should be conducted during breaks or vacation. Furthermore, how they used the learning resulting from Continuous Professional Development (CPD) activities undertaken within their teaching practice.

In obtaining opinions on the factors affecting teaching performance after Continuous Professional Development (CPD) eighty seven percent (87.5%) agrees that CPD do not address teacher's classroom needs, seventy five percent (75%) disagree that training materials are made available for teachers to use alongside, more than eighty five percent of the respondent where of the view that beneficiaries of the training programmes are poorly targeted.

These findings are in line with the findings of the study, which found that more than 31% of respondents believe officers for Continuous Professional Development (CPD) programs are to blame for poor performance because CPD does not address teachers' classroom needs and training materials are not made available for teachers to use. The respondents gave a mixed response, with some stating that:

"The idea of Continuous Professional Development (CPD) is to directly develop staff, I don't think this has a direct impact on students' academic achievement, however, we have seen progression year on year within the schools which Continuous Professional Development (CPD) is part of in terms of the bigger picture and would therefore attribute to student achievement."

Updated topic knowledge and increasing current work performance were indicated as significant areas of relevance for Continuous Professional Development (CPD) by survey respondents. This viewpoint is compatible with the research's definition of

93

Continuous Professional Development (CPD) as having the primary goal of assisting instructors in acquiring information about newer ways of thinking about learning.

In conclusion, the Sagnarigu District Directorate of the Ghana Educations Service has been organizing professional development courses for its teachers. However, owing to budgetary restrictions, the district has been unable to provide the requisite numbers and types of training due to the large number of schools in the district. Despite their discontent with the present Professional Development Programs for teachers, respondents nonetheless advocated for the continuation of these programs for teachers since they are critical to their professional development.

4.3 Research Question 2: What are the constraints faced by teachers in participating in CPD Programs

Teacher's Continuous Professional Development (CPD) is a lifelong process as long as teachers are in the teaching learning process. Teaching and developing oneself might not always go smoothly throughout the career. There are various constraints that hamper teachers not to be professionally competent.

Table 4.4 shows the various constraints faced by the teachers in engaging continuous development programmes. From the responses, the highest and lowest ranked constraints, were insufficient or no incentives and the unsuitability of Continuous Professional Development (CPD) duration respectively. Most teachers in the district complained that incentives to teachers are insufficient. As a result, they are not motivated to engage in continuous development programmes. Personal financial problems were the second ranked constraint that limited the engagement of Continuous Professional Development (CPD) programmes by teachers. The third ranked constraint was overloaded classes.

94

The teachers complained that overloaded classes prevent them from having sufficient time for Continuous Professional Development (CPD). Thus, the fourth constraint which is time management. Furthermore, internal factors of teachers such as personality, motivation and commitment restrain teachers in engaging in Continuous Professional Development (CPD) programmes. This could be attributed to lack of seminars that enlighten teachers on the importance of CPD programmes.

Table 4.4: Constraints faced by Teachers in Participating in CPD programs

Constraints	Mean Rank	Rank
Insufficient or no incentives	1.44	1
Time management	4.06	4
Personal financial problems	2.13	2
Overloaded classes	3.63	3
Impracticality of professional development training	5.44	6
Duration of CPD is not suitable	6.25	7
Internal factors of teachers such personality, motivation and commitment	5.06	5
Kendall's W^a = .660		

Source: Field Survey (2021).

Teachers need to be motivated in order to do their jobs properly and efficiently. Good performance is achieved when instructors are properly motivated and pleased with their remuneration in terms of quantities and timely payment, with minimal levels of harassment. When instructors are not properly compensated and recognized, their optimism plummets, leading to a lack of dedication to classroom instruction and involvement in other pet businesses. The present low pay rates of teachers in our nation are the outcome of low motivation among teachers. Many teachers are not adequately compensated for their important role in society, according to Webster and Watson (2002). A general generalization that can be made here is that, while

instructors are not drawn to the profession because of the pay, the pay level might affect their decision to pursue a career in teaching or to pursue a career in another field. The World Bank in 2006 reported that, payment of subsistence allowance, holiday allowance, and allowance transfer was delayed in several educational institutions. They therefore concluded that, the delay in payment of any of these allowances can affect the delivery of quality education in the various schools.

People may respond to discriminations differently, but generally, the level of demotivation is comparative to the professed inequality between inputs and expected outputs. Some people in this regard could decrease effort and application and become inwardly unhappy, or supposedly difficult, disobedient or even disruptive. The implication for this on teacher's job satisfaction is that if teachers thought they are being poorly paid either in position to their colleagues or other professionals in employer's pay roll, their input may reduce (resulting in poor academic performance in schools) or protest through strikes as witnessed in recent times in Ghana.

Policy challenges are the other point mentioned by the teachers. The new education policy describes teaching English language as a subject starting from grade 1, and as a medium of instruction for secondary and tertiary levels. This couldn't solve the problems. Selection of candidates for the teaching profession is also the result of the education policy. It is obvious that policy has positive impact on teachers Continuous Professional Development (CPD) success if it is designed to prove the success of education quality. However, the policy are driven by political success rather than taking practical measures in the implementation process. These interferences either retard or destruct the accomplishment process. Thus, majority of the teacher's living standards is not encouraging.

4.4 Research Question 3: To what extent do teachers' academic qualification and CPD attendance have on students' academic performance

Tables 4.5, 4.6, 4.7, and 4.8 presents a summary of the parameter estimates for the effects of teacher's academic qualification on the academic performance of students. Due to the common practice that different teachers teach different subjects in different classes, the effects were analyzed specifically for each subject. There were no science, math or social teachers with post-graduate qualification therefore in Table 4.5, 4.6, and 4.8, Degree qualification equals 1, if teacher has a degree and 0 if teacher has a diploma qualification.

Table 4.5: Effect of Science teachers' academic qualification and CPD attendance on students' science academic performance

Variables	Coefficients	Standard error	p-value
Age	0.230	0.409	0.574
Gender	0.550	1.265	0.664
Form	0.026	0.798	0.974
Degree qualification	16.816	1.958	0.000***
(Constant)	37.867	5.429	0.000***

Source: Field Survey (2021).
NB: ***indicates significance at 1%

The results indicate that science teachers with a degree qualification have a positive influence on student science scores. Thus, teachers with a degree qualification have a better performing students compared to those with diploma qualification.

Table 4.6: Effect of Math teachers' academic qualification and CPD attendance on students' math academic performance

Variables	Coefficients	Standard error	Sig
(Constant)	27.500	5.802	0.000***
Age	0.601	0.412	0.146
Gender	1.868	1.259	0.139
Form	0.839	0.790	0.289
Degree qualification	19.831	1.685	0.000***

Source: Field Survey (2021).
NB: ***indicates significance at 1%

97

There was a positive and significant effect of math teacher's academic qualification on student's math scores. These results indicate that teachers with a degree qualification have better performing students compared to those with diploma qualification.

Table 4.7: Effect of English teachers' academic qualification and CPD attendance on students' English academic performance

Variables	Coefficients	Standard error	Sig
(Constant)	53.456	5.301	0.000***
Age	0.344	0.378	0.364
Gender	1.134	1.148	0.324
Form	-0.272	0.736	0.712
Diploma qualification	-16.287	1.567	0.000***
Postgraduate qualification	8.535	1.369	0.000***

Source: Field Survey (2021).
NB: ***indicates significance at 1%

In table 4.7, diploma qualification equals 1, if a teacher has diploma qualification and 0 if a teacher has a degree qualification. Likewise, postgraduate qualification equals 1 if a teacher has postgraduate qualification and 0 if a teacher has degree qualification.

Similarly, in analyzing the effect of English teachers' academic qualification on student's English academic performance, it was found that, there was a positive relationship between postgraduate qualification and students' scores. However, there was a negative relationship between diploma qualification and student scores. This implies that students who have teachers with diploma qualification do not perform as well as those who have teachers with postgraduate qualification.

Table 4.8: Effect of social studies teachers' academic qualification and CPD attendance on students' social academic performance

Variables	Coefficients	Standard error	Sig
(Constant)	36.833	5.592	0.000***
Age	0.259	0.406	0.524
Gender	0.530	1.256	0.673
Form	-0.904	0.792	0.255
Degree qualification	-1.445	1.943	0.458

Source: Field Survey (2021).
NB: ***indicates significance at 1%

It is concluded that, there was no significant association between academic qualification of social studies teachers and students social studies scores. This may be attributed to the non-technicality of the subject. Generally, the results indicates that students perform better when their teachers have attained higher academic qualification.

4.5 Research Question 4: What are teachers' specific needs in implementing the CPD programs

Indeed, significant challenges remained in the way of teachers' professional growth and competence, especially on their teaching field and classroom. Absence of the transfer of learning from the training to the workplace, inadequate teaching resources, research skills should be developed, proper mechanism for teacher collaboration, prepare students adequately for national examinations, employing of active teaching, usage of technology for teaching as a teaching and learning tool, designing of effective writing activities, prepare reading activities, proper classroom management, the use of textbook properly, designing of listening activities, prepare speaking activities and other internal characteristics affecting instructors, such as personality, motivation, and dedication, continue to be the most significant restrictions in the teaching profession.

99
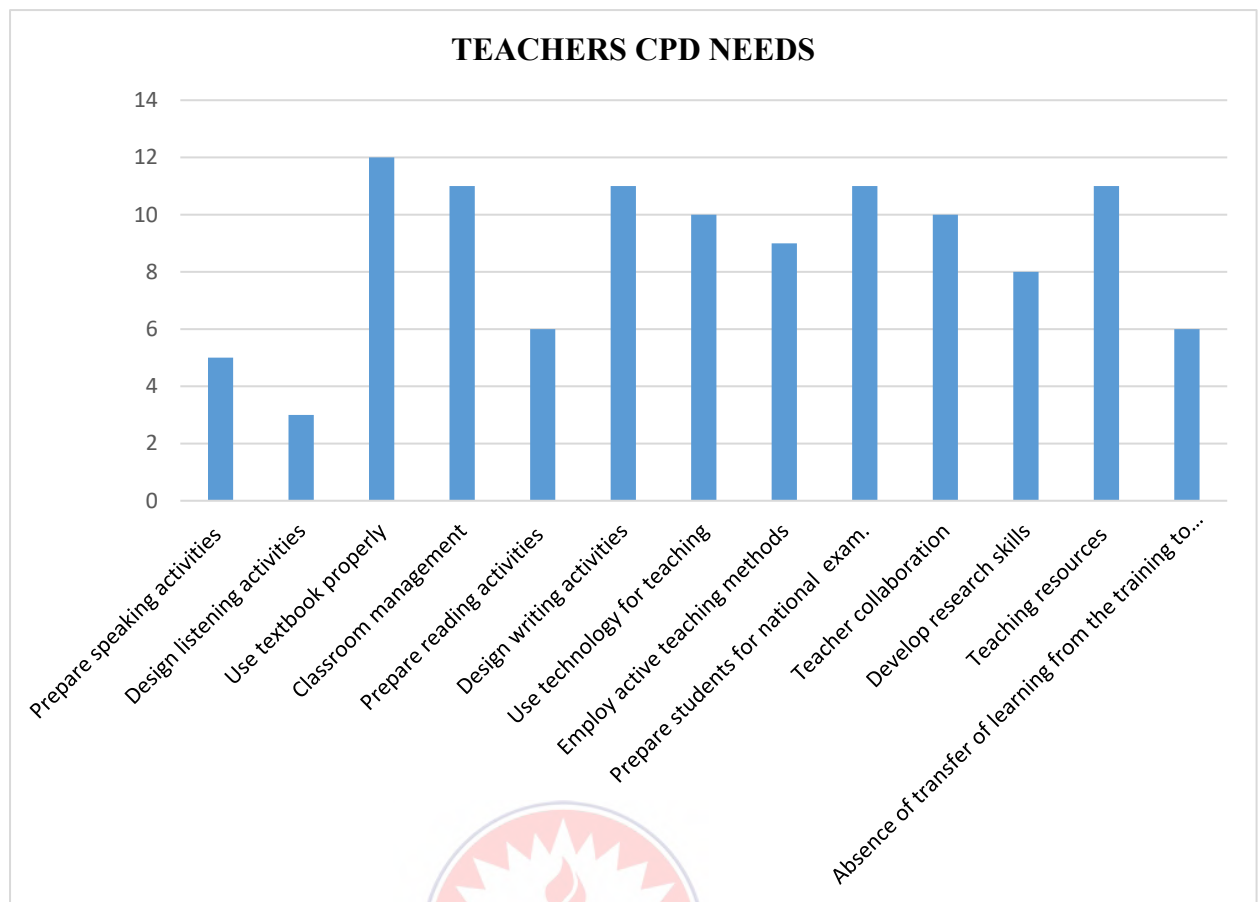
Source: Field Survey (2021).

Figure 4.5: Teachers specific needs in implementing CPD

Many home works for government, teachers, and society still have to be improved, revised, and redone in order to make the nation's goals a reality. Teachers did not have the same access to professional development programs to learn and maintain their professionalism.

The statistics from the above reveals that the respondents' most specific needs of teachers for their professional development encounters is using textbook properly. The average means for item 7(12.0).

A textbook can serve different purposes for teachers: a core resource, a source of supplementary material, an inspiration for classroom activities, and a curriculum itself. Textbooks assist managing a lesson. It saves time, give direction to lessons,

100

guide discussion, facilitate in giving homework, making teaching 'easier, better organized, more convenient', and most of all, it provides confidence and security.

To the learner, textbooks is seen as a 'framework' or 'guide 'It helps them to organize their learning both inside and outside the classroom. It enables them to learn 'better, faster, clearer and easier. Textbooks is one of the main things that are important for the learning process and are supported by explanations from the teacher. According to Stará, Chvál and Starý (2017), textbooks play a prominent role in the teaching or learning process. Furthermore, one of the primary functions of textbooks is to make established information accessible and visible to learners in a select, easy, and structured manner.

The use of textbooks should not be seen as reflecting a deficiency on the part of the teacher, any more than the use of computer-based materials would be so regarded. Textbooks should be regarded as one of the many resource's teachers can draw upon in creating effective lessons, but teachers need training and experience in adapting and modifying textbooks as well as in using authentic materials and in creating their own teaching materials.

The other high-rate results registered is the use of technology for teaching, preparation of students for national exam, designing writing activities, classroom management and the availability of teaching resources.

For the use of technology for teaching which has average mean of 11.0. Preparation of students for national exam and designing writing activities average score results of 11.0 respectively also prove the teacher's specific needs to engage in an ongoing professional development activity.

Teachers also have to be familiar and skillful on ICT in facilitating the students learning. This trait reminds teachers to equip students with life skills as a tool to earn a living.

However, although ICT offers several benefits in teaching and learning, some teachers felt that the use of ICT in pedagogy could kill the reading culture and may be misused in spite of its advantages. Another indicated that one of the disadvantages of using ICT in teaching and learning is loss of classroom control by the teacher. She claimed that it creates loopholes for students. In spite of the fact that majority of the teachers felt that the use of ICT was useful, it was noted that for it to be effective it required that teacher's supervision must be enhanced: Sometimes ICT is misused because teachers leave students to interact with the materials without the teacher's guidance because either the teacher has no or little knowledge about its usage. Findings from some of the teachers also pointed to reluctance among teachers to use ICT in the classroom due to lack of confidence and being overwhelmed by the complexity of ICT.

It was established that majority of the teachers had a positive perception towards ICT utilization in teaching and learning. They emphasized the importance of in-service courses to update their ICT skills. The importance of integrating ICT in teaching according to teachers were found to be reduced time spent on explaining abstract concepts, improved communication and improved quality of lesson delivery where students of hearing impairments were not disadvantaged.

ICT resources: A diverse set of technological tools used to communicate and create, disseminate, store and manage information (Mingaine, 2013). In this study it refers to the technological facilities that agriculture teachers use in the teaching and learning

Teacher classroom management with a mean of (11.0) and availability of teaching resources also with a mean of (11.0) reveals the respondent's consensus of other career continuous development obstacles. With the use of technology for teaching and teachers' collaboration, a mean of (10.0) respectively, are the other hindrance agreed by the respondent as their specific needs. The participants feel their negative experiences in maintaining transparency in educational institution.

On the other hand, some participants showed less sign to statements such as the preparation of speaking activities, designing effective listening activities and the preparation of reading activities. However, other teachers connotes that their specific needs is to employ active teaching, develop research skills and the absence of transfer of learning from the training to the workplace. Therefore, the statistics in figure 3 described that the most common specific needs are personal to the teachers in the conveyance of guidelines in the classroom for students to improve in their academic performance.
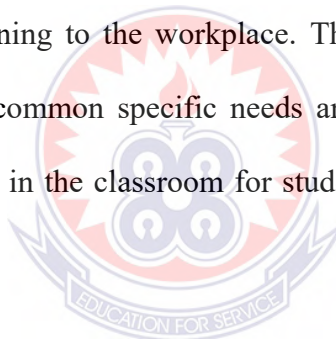
4.6 Analysis of Qualitative Data

4.6.1 Introduction

This chapter discusses the analysis of interviews with four (4) head teachers in two schools from the stated study at Choggu demonstration and Bishop JHS. This stage of data collection took place after the survey stage. The purpose of this qualitative data is to explore and provide insights as a result of data obtained from the quantitative analysis in order to more deeply investigate the current situation of teacher's continuous professional development on students' academic performance.

However, I encountered a situation where one of the headteachers was regrettably unable to take part in the interview as originally planned. The reason behind their absence was attributed to their recent commencement of pension leave, which coincided with the scheduled interview date. As a result, the headteacher's unanticipated leave rendered their participation in the interview with me unfeasible.

Therefore, the study was conducted by collecting information from three head teachers whose response aims to answer the research questions. Head teachers of two junior high school participate for qualitative data. The qualitative data was analyzed thematically. The themes identified are put based on the data collected from the participant's survey results about JHS school teachers Continuous Professional Development (CPD) Accessibility to information, institutional provision and teacher's academic qualification and achievements.

The data collected from the interview is represented with (HT1, HT2, and HT3). All the interviews were audio recorded and later transcribed verbatim. The transcribed data were analyzed thematically as Bruan. & Clarke, (2006) described thematic analysis gives flexibility, relatively easy and quick method to learn, and do. It can usefully summarize key features of a large body of data. It can also highlight similarities and differences across the data set. Besides it can generate unanticipated insights and allows for social as well as psychological interpretations of data. The themes were identified by subsequent readings of the transcripts. The following themes developed from the transcript. The results of the qualitative data were analyzed here by discussing the themes that emerged from the interview and supported by presenting quotes of the verbatim.

Accessibility to information about CPD, as well as institutional provision for CPD, the effects of teacher's academic qualification on student's academic performance as well as to broaden the analysis of the findings to clarify and confirm the study's results. The analysis of the interviews is presented to provide qualitative data relating to the study's research questions and to identify the emergent themes.

The first section of this chapter is an analysis of the interviews, with a focus on the accessibility of CPD material. It also gives more information about the data in connection to the three key topics, making the study's conclusions easier to understand. The second part examines the data from the interviews regarding the institutional provision for CPD. In the last part, the analysis of the head teacher's interviews investigates the teacher's academic qualification achievements they have gained on students' academic achievement or performance experienced.

Regarding, Continuous Professional Development (CPD) respondents stated that:

Respondent (HT1):

"*Continuous Professional Development (CPD) basically means introducing new knowledge or skills to a teacher's repertoire*".

Continuous Professional Development (CPD) can be defined as an ongoing process that entails the introduction and assimilation of novel knowledge and skills into a teacher's existing repertoire. This activity, whether it occurs as a planned initiative or spontaneously, plays a pivotal role in fostering the growth and dissemination of essential knowledge, skills, and individual attributes that are directly pertinent to the art of teaching and learning. As a research respondent, it is crucial to emphasize that CPD represents a dynamic and transformative journey, wherein educators engage in

105

regular and purposeful efforts to expand their expertise, adapt to evolving educational landscapes, and enrich their instructional practices for the benefit of their students' academic and personal development.

Respondent (HT2):

> "*Continuous Professional Development (CPD) designed to improve the teacher's ability to teach and/or facilitate the teaching and learning process*".

In the realm of education, Continuous Professional Development (CPD) stands as a carefully curated and structured approach aimed at enhancing the teacher's proficiency in the art of teaching and, in turn, fostering a conducive environment for facilitating the teaching and learning process. As a research respondent, it is vital to highlight that CPD is thoughtfully designed and implemented to empower educators with the latest pedagogical insights, cutting-edge methodologies, and innovative strategies that enable them to adapt to the ever-evolving educational landscape. This ongoing and purposeful endeavor equips teachers with the necessary tools to create engaging and effective learning experiences, cultivate a deeper understanding of their students' needs, and embrace a growth mindset that continuously refines their instructional approaches. The ultimate goal of CPD is to elevate the quality of education, nurture lifelong learners, and empower both educators and students alike to thrive in an ever-changing educational landscape.

Respondent (HT3):

> "*Also it is an intended and systematic process of activities that are aimed at positive change and improvement*".

In the context of professional development within the educational sphere, I, as a research respondent, wholeheartedly concur that Continuous Professional Development (CPD) represents a deliberate and methodical progression of activities meticulously orchestrated to foster affirmative transformation and advancement. This purpose-driven and structured undertaking aims to instigate positive change, amplify competence, and drive improvement in the realm of teaching and learning. As an active participant in CPD, educators engage in a well-orchestrated journey of continuous growth, embracing opportunities to acquire fresh knowledge, hone their skills, and refine their instructional methodologies in a concerted effort to elevate their overall effectiveness as educators. This ongoing commitment to development further underscores the significance of CPD as a strategic pathway for nurturing a highly capable and proficient cadre of teachers, which, in turn, contributes to the overall enhancement of the educational landscape and student outcomes.

Also, one of the study respondents had the perception that Continuous Professional Development (CPD) is considered as a continuous process that aids teachers in acquiring new information and abilities through formal and informal activities and experiences, as well as reflecting on their practices. However, one respondent perceived that CPD goes beyond improving the ability of the teacher to teach, but transferring what has been learnt to improve students' academic performance.

Investigating the teacher's perceptions of their involvement with CPD was one of the objectives of the research study. All the head teachers who were interviewed expressed very positive views about their participation in CPD courses, and they considered it to be a crucial part of their ongoing proficiency and development both personally and professionally in a teaching and learning setting.

4.6.2 Availability of Continuous Professional Development (CPD)

This organizing theme comprise of eight basic themes, namely: Availability of information about Continuous Professional Development for teaching staff, excellent information about new CPD programmes, time and location offered is satisfactory and employer provision for staff development.

Generally, the respondents rated the Availability of Continuous Professional Development in the school from an average score of 5 to 8. This implies that the Availability of Continuous Professional Development of the school is better. However, as highlighted by some respondents, there is still room for improvement.

Respondent (HT3):

> "*On a scale of 10, concerning the availability of Continuous Professional Development in the school, I will give it 8*".

As a research respondent evaluating the accessibility of Continuous Professional Development (CPD) within the school setting, I would confidently assign a rating of 8 on a scale of 10. This rating signifies a commendable and fairly high level of availability and provision of CPD opportunities for educators in the school. The institution demonstrates a substantial commitment to fostering professional growth among its teaching staff, evident through the considerable array of CPD initiatives and resources that are readily accessible. This positive rating reflects a proactive approach by the school administration in offering intentional and structured development opportunities to educators, enabling them to continuously enhance their teaching abilities and enrich their instructional practices. While there might still be room for further improvement and diversification of CPD offerings, the overall score

highlights the school's praiseworthy efforts in cultivating a culture of continuous learning and development, ultimately benefiting both educators and students alike.

Respondent (HT1):

> "*The availability of Continuous Professional Development of the school is one that needs to be attended to especially with the methodologies. Therefore, on the scale of 10, I will give 7 (there is room for improvement)*".

In my capacity as a research respondent, I discern that the accessibility of Continuous Professional Development (CPD) within the school necessitates attentive consideration, particularly with regard to instructional methodologies. On a thoughtful rating scale of 10, I would assign a score of 7, signifying that there exists potential for improvement in this area. While the school endeavors to provide CPD opportunities, it is evident that there is scope for enhancing the breadth and depth of methodologies incorporated in the professional development initiatives offered to educators. As an astute observer, I recognize the value of a diverse and comprehensive range of CPD resources that cater to the multifaceted needs and preferences of the teaching staff. By focusing on augmenting the variety of methodologies and tailoring CPD experiences to align with individual educator growth trajectories, the school can achieve a more robust and impactful professional development culture. Addressing these areas of improvement will undoubtedly fortify the pedagogical prowess of the teaching faculty, leading to a more enriched learning environment and ultimately benefiting the entire educational community.

Respondent (HT2):

> *"On a scale of 10, the availability of Continuous Professional*
> *Development in the school, I will give it 6".*

In my role as a research respondent, after a thorough evaluation of the school's provision of Continuous Professional Development (CPD), I would rate its availability a 6 on a scale of 10. This rating underscores the presence of CPD opportunities within the school to a moderate extent, indicating that while there are commendable efforts in place, there remains room for improvement in the overall accessibility and scope of CPD initiatives. As an attentive observer, I acknowledge the significance of CPD in bolstering the expertise and instructional prowess of educators, thereby positively influencing the quality of teaching and learning. However, to further enhance the effectiveness of CPD, it is imperative for the school to invest in additional resources and strategies, enabling a more comprehensive and diversified range of professional development opportunities for its teaching staff. By doing so, the institution can fortify its commitment to cultivating a culture of continuous learning, empowering educators to refine their skills, stay abreast of innovative pedagogical practices, and ultimately elevate the educational experience for all stakeholders involved.

Excellent Information about New CPD Programmes.

Respondent (HT 2):

> *"We do not have much time when the information reaches us because*
> *it gets to us late therefore, lack of preparation towards the CPD*
> *programmes"*

110

In the capacity of a research respondent, I find that there is a notable constraint in the school's timely dissemination of information regarding Continuous Professional Development (CPD) initiatives. The critical concern lies in the delayed arrival of pertinent CPD details to the teaching staff, which consequently hampers their ability to adequately prepare and fully engage with the CPD programs. This aspect raises an essential challenge regarding the effectiveness of CPD implementation and the optimization of its benefits for educators. Addressing this issue calls for a strategic focus on enhancing communication channels and streamlining the process of delivering CPD-related information to teachers in a timely and organized manner. By ensuring that educators are promptly informed of upcoming CPD opportunities, the school can foster a more conducive environment for preparation, allowing its teaching staff to embrace CPD experiences with heightened enthusiasm and dedication. Such improvements are vital for maximizing the potential of CPD in empowering teachers with valuable knowledge and skills, ultimately contributing to the continuous growth and advancement of the entire educational community.

Respondent (HT1) and Respondent (HT2): Regarding Information about New CPD Programmes in the school, **Respondent (HT1)** and respondent **(HT2)** indicated that:

"information about CPD are poorly circulated but it sometimes reaches us."

Upon inquiring into the perspectives of both Respondent (HT1) and Respondent (HT2) concerning the dissemination of information regarding new Continuous Professional Development (CPD) programs in the school, it is evident that they share a common sentiment. Both respondents concur that there are deficiencies in the circulation of CPD-related information, leading to occasional delays in its reach to the teaching staff. Despite this drawback, both respondents express contentment with the

111

timing and location of the CPD programs offered. As a research respondent, it is crucial to emphasize that while the scheduling and accessibility of CPD activities are perceived as satisfactory, the school administration should take heed of the feedback provided regarding the information dissemination process. Enhancing the effectiveness of communication channels and ensuring the timely and comprehensive delivery of CPD details can significantly contribute to empowering educators with greater preparedness and enthusiasm for engaging with the CPD opportunities available. By proactively addressing this aspect, the school can foster an environment conducive to continuous professional growth and enrich the overall teaching and learning experience within the institution.

Time and Location Offered Is Satisfactory.

Respondent (HT3) and Respondent (HT2): (HT3)

> *I think that the Time and Location Offered at these programmes are okay in terms of school period and weekends".*

As a research respondent, it is evident from the feedback provided by both Respondent (HT3) and Respondent (HT2) that they hold a shared perspective regarding the suitability of the Time and Location Offered for the CPD programs in question. Both respondents express the belief that the timing and venue of these programs align reasonably well with the school period and weekends.

(HT2):

> *This perception underscores the consideration given by the school in scheduling CPD activities in a manner that accommodates the availability of teachers during regular school hours as well as during weekends when educators may have more flexibility to participate.*

This thoughtful approach to timing and location is recognized by both respondents as a positive aspect, contributing to the accessibility and engagement of the teaching staff in these CPD initiatives.

(HT2):

> *As a research respondent, it is vital to acknowledge the significance of aligning CPD schedules with educators' commitments, as this fosters a conducive environment for their active involvement, promoting continuous professional growth and, consequently, enhancing the overall effectiveness of the educational community.*

Respondent (HT2) and Respondent (HT1):

> "*Time and location offered is always determined by the officers of CPD programmes, this makes it difficult for some of the teachers to attend. In their view CPD should be effective in providing sufficient time for teachers to share, practice and reflect enhancing teachers to appreciate their roles and responsibilities in the classroom. One of the big mistakes is usually done by cutting down the time from the prior schedule which is much disliked by most of the teachers.*"

As a research respondent, based on the viewpoints expressed by both Respondent (HT2) and Respondent (HT1), it becomes apparent that the timing and location of Continuous Professional Development (CPD) programs are exclusively determined by CPD program officers. This unilateral decision-making approach poses challenges for certain teachers, hindering their ability to participate in these essential development opportunities. Both respondents assert that an effective CPD program should allocate sufficient time for teachers to engage in meaningful activities such as

sharing experiences, practical application, and reflective exercises. Such comprehensive and interactive sessions enable educators to gain a deeper appreciation for their roles and responsibilities in the classroom, ultimately benefiting the overall teaching and learning process.

A notable concern highlighted by both respondents is the common occurrence of reducing the allocated time for CPD from the previously established schedule. This practice is widely disliked by many teachers, as it limits their capacity to fully immerse themselves in the learning experience and diminishes the potential impact of CPD on their professional growth. As a research respondent, it is vital to recognize the significance of offering an ample and uninterrupted timeframe for CPD activities, fostering an environment that nurtures educators' active involvement and meaningful engagement with the developmental content. Addressing this issue requires a more collaborative and inclusive approach, wherein the input and preferences of teachers are taken into consideration when determining the timing and duration of CPD programs. By incorporating such considerations, the school can optimize the effectiveness of CPD initiatives, enhancing teacher satisfaction, and ultimately elevating the quality of education within the institution.

Employer Provision for Staff Development.

Respondent (HT3):

> "*Institutional provision for all professional development of the teaching staff is provided by the employer.*

All respondents had same responses." This implies that all participants responding had similar evaluation views of the provided CPD activities for staff Development. As a research respondent, it is evident from the statement made by Respondent (HT3)

that the employer takes full responsibility for the institutional provision of professional development opportunities for the teaching staff. Moreover, the feedback from all participants was notably consistent, indicating a unanimous consensus among the respondents regarding their evaluation of the CPD activities provided for staff development. This collective agreement among all respondents underscores the shared perception that the employer has a pivotal role in offering and organizing CPD initiatives, and the participants' evaluations are in alignment with this understanding. This congruence of views indicates a harmonious recognition of the employer's responsibility in fostering a culture of continuous learning and growth among the teaching staff. As a research respondent, it is crucial to acknowledge the significance of this unanimity, as it signifies a well-established and coherent approach to staff development, which can potentially yield positive outcomes in enhancing the expertise and pedagogical efficacy of educators. Such an inclusive and employer-supported approach to CPD is instrumental in nurturing a thriving educational community, where teachers are equipped with the necessary resources and opportunities to continually refine their skills, ultimately benefiting both the educators and the students they serve.

4.7 Key findings in relation to research questions

The major purpose of this study is to come to a conclusion based on the study's research questions and objectives. These were the questions:

a) What are the teacher's perception on CPD programmes in the Sagnarigu District?

b) What are the constraints faced by teachers in participating in CPD programmes in the Sagnarigu District?

c) To what extent do teachers' academic qualification and CPD attendance have on students' academic performance in the Sagnarigu District?

d) Is there any relationship between teacher's specific needs and CPD programmes in the Sagnarigu District?

Question One: What are the teacher's perception on CPD programmes in the Sagnarigu District. In respect to this question, more than thirty one percent (31%) of teachers are not satisfied with the way CPD programmes are organized, they therefore disagree with the satisfaction of the organization of CPD's. This means that appropriate measures should be put in place to ensure that teachers will not only get fully satisfied but also participate fully in the CPD programmes organized for them. Also, information on new CPD programmes is not known to teachers thus thirty one percent (31%) of the teacher's responses. Time offered for CPD is not convenient, thirty one percent (31%) of the respondent agreed that the times that CPD is organized is no convenient for the (teachers). Forty three percent (43%) disagreed that there is mechanism in place to supervise staff development activities. Majority thus fifty six percent (56%) strongly agreed that during breaks/vacation is the best times to participate in CPD activities whiles twenty five percent (25%) agreed, eighteen percent (18%) disagreed that during breaks and vacation is the best time to participate in CPD activities. It was also revealed that, during breaks/vacation is the best times to participate in CPD activities. For training materials to be made available to teachers to use after employers' provision support for staff development, seventy five percent (75%) disagreed to it whiles twelve percent (12%) agreed that training materials are made available for teaches to use. It was found out that, because materials are not available for teachers, teachers feel reluctant to apply lessons from training sections in class.

Question Two: What are the constraints faced by teachers in participating in CPD programmes in the Sagnarigu District. To examine the constraints faced by teachers in participating in Continuous Professional Development (CPD) programmes. Professional development programs play an essential impact on teacher performance, according to the findings based on this goal. If teachers are not offered professional trainings throughout their careers, they will not be able to maintain their capacity to function successfully after their initial professional trainings at the college. Yet schools in the Sagnarigu seem to lack behind in terms of students' academic performance. Admittedly, there may be some constraints faced by teachers. Personal financial problems was the second ranked constraint that limited the engagement of Continuous Professional Development (CPD) programmes by teachers and insufficient or no incentives was ranked first, Professional development programs, on the other hand, continue to play an important role in increasing their performance.

Question Three: To what extent do teachers' academic qualification and CPD attendance have on students' academic performance in the Sagnarigu District. With reference to this question, science and math's teachers with degree qualification have a positive impact on student's science scores. Thus, teachers with a degree qualification have a better performing students compared to those with diploma qualification.

However, there was a negative relationship between diploma qualification and student scores. This implies that students who have teachers with diploma qualification teaching English do not perform as well as those who have teachers with postgraduate qualification. It is concluded that, there was no significant association between academic qualification of social studies teachers and students social studies scores.

117

This may be attributed to the non-technicality of the subject. Generally, the results indicates that students perform better when their teachers have attained higher academic qualification. Every teacher should be able to participate in at least one professional development program every term.

Question 4: Is there any relationship between teacher's specific needs and CPD programmes in the Sagnarigu District. In regard to this question, it was discovered that professional development programmes are designed to meet the requirements of teachers and help them enhance their classroom performance. These programmes are normally coordinated by the district's training officer and circuit supervisors. Capitation grants are sometimes used to fund school-based in-service training programmes. Some of the training packages for teachers were also shown to be a waste of time since they did not meet their demands in the classroom. They would like that training programs stem from a needs assessment that represents the collective needs of teachers in solving challenges and enhancing classroom teaching and learning.

4.8 Chapter Summary

The findings of the data collection and analysis were presented in this chapter. It also included a discussion of the findings, a summary of the chapter, and the study's key findings based on the study's objectives. The presentations were based on the four main research questions raised to guide the study, as well as demographic related issues.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The data obtained from respondents was evaluated and analyzed in the preceding chapter with the goal of discovering patterns from which meaningful deductions and conclusions might be formed. This concluding chapter presents the main findings of this study with regard to the effects of teacher's academic qualification on students' academic performance in the Sagnarigu District. It is broken down into four sections: an introduction, a summary, a conclusion, and some recommendations for additional research, action, or policy.

5.1 Summary of key findings

There were four goals to the study: (a) To access teacher's perceptions on Continuous Professional Development CPD programmes in the Sagnarigu District, (b) To examine the constraints faced by teachers in participating in CPD programmes (c) To determine the effects of teacher's academic qualification on students' academic performance and (d) To identify the relationship between teachers' specific needs and CDP programmes. Fulfilling these objectives was expected to address the serious challenge of unsatisfactory post-professional training courses and the competence of teachers in Sagnarigu District. The theoretical underpinning (hypothesis) underlying this study is that when instructors get meaningful professional development, individuals will gain new understanding and skills that will influence their teaching approaches, better student learning, and help them reach positive results. The influence of continuous professional development on teachers and students is researched using a conceptual framework. In this light, a review of relevant literature was carried out to analyse the existing body of knowledge on teacher access to

resources and their effects on student academic performance, as well as the effects of professional development on teacher evaluations hence the need for Continuous Professional Development (CPD). A total of sixteen (16) teachers comprising eight (8) teachers from two (2) schools. The two (2) Junior High schools for the research were chosen using the purposive sampling approach. Individual teachers from a school were chosen for the study using simple random sampling. The primary data for the analysis came from a questionnaire and a semi-structured interview, and the data were analyzed using descriptive statistics such as mean, percentages and standard deviation and Ordinary Least Square Criterion (OLS) in SPSS version 21. For comparison analysis, the findings were presented in tables and figures. The respondents stated their satisfaction with the District's CPD programs, which looked at teachers' impressions of Continuous Professional Development (CPD) programs, thus, the first research question. The mean score for the perception of satisfaction of Continuous Professional Development (CPD) was 2.87, indicating that majority of the respondents had an agreeing perception that they were satisfied with CPD in the District. Teachers, on the other hand, showed a high degree of support for these programs.

The disparity between what professional development programmes teachers deem useful in improving their performance and which ones they like to attend might be due to two factors.

One, because the number of teachers who are eligible to take paid study leave is constrained, teachers find it difficult to leave their classes for extended durations to pursue more education. As a result, many people are turning to online learning courses to better their academic standing, especially because senior management

positions in the Ghana Education Service now need a master's degree. Second, distance learning programs are popular because the certificates issued at the completion of such courses or programs are recognized at both the professional and academic levels. In addition, approximately seventy percent (69.75%) of the respondents perceived that Continuous Professional Development (CPD) programmes are patronized. More than eighty seven percent (87.5%) perceived that workshop and in service are made available to teachers and more than sixty eight percent 68.75 perceived that there is satisfaction with the Continuous Professional Development (CPD) programmes respectively.

Teaching materials can help students learn and they come in a variety of shapes and sizes, but they all have one thing in common. Eighty seven percent (87.5%) agree that they use different teaching methods and eighty seven percent (87.5%) more agree that different teaching and learning materials (TLMs) are used to deliver courses.

More than forty three percent (43.75%) of the respondents disagreed that there is mechanism in place to supervise staff development activities which is provided by the employer is not adequate for staff development. Again, in obtaining opinions on the most useful period/time for teachers to participate in Continuous Professional Development (CPD) activities more than fifty six percent (56.25%) of the respondent strongly agree that for the employer to provide support for staff development they would prefer to participate in Continuous Professional Development (CPD) activities during breaks and vacations insisting it is the best time for such activity. Professional development that contains the following components is more likely to be successful and facilitate the learning process, according to a growing body of scientific evidence, National Professional Development Centre on Inclusion (2008):

121

1. Professional development approaches are focused on professional practices and consist of content-specific rather than general instruction.

2. Professional development is aligned with instructional goals, learning standards, and the curriculum materials that practitioners use in practice.

3. Learning opportunities are intense, sustained over time, and include guidance and feedback on how to apply specific practices through methods such as coaching, consultation, or facilitated collaboration (for example, communities of practice, teacher study groups). The posture of respondents did not suggest that these vital elements were met in the professional development programmes they attended.

The second research question focused on the constraints faced by teachers in participating in CPD programmes. From the responses, the highest and lowest ranked constraints, were insufficient or no incentives and the unsuitability of Continuous Professional Development (CPD) duration respectively. Most teachers in the district complained that incentives to teachers are insufficient. As a result, they are not motivated to engage in continuous development programmes. The teachers complained that overloaded classes prevent them from having sufficient time for Continuous Professional Development (CPD). Thus, the fourth constraint which is time management.

Furthermore, internal factors of teachers such personality, motivation and commitment restrain teachers in engaging in Continuous Professional Development (CPD) programmes. This could be attributed to lack of seminars that enlighten teachers on the importance of Continuous Professional Development (CPD) programmes.

The third research question asked to what extent does teachers' academic qualification has on students' academic performance. Due to the common practice that different teachers teach different subjects in different classes, the effects were analyzed specifically for each subject. The results indicate that science teachers with a degree qualification have a positive influence on student science scores. Thus, teachers with a degree qualification have a better performing students compared to those with diploma qualification. There was a positive and significant effect of math's teacher's academic qualification on student's math's scores. Similarly, in analyzing the effect of English teachers' academic qualification on student's English academic performance, it was found that, there was a positive relationship between postgraduate qualification and students' scores. However, there was a negative relationship between diploma qualification and student scores. This implies that students who have teachers with diploma qualification do not perform as well as those who have teachers with postgraduate qualification.

In their evaluation of post-professional development training for teachers, respondents verified the assumption. Teachers' competency after professional development courses, according to respondents, was good. The significance of these responses is that professional development courses help teachers improve their skills. The responses contrast sharply with respondents' prior claims that their needs had not been satisfied, and they show teacher unity rather than tough professionalism.

The fourth research question examined the constraints faced by teachers in participating in CPD programmes. Many constraints stayed around teachers on the way to professional development and competence based on their field of teaching and classroom. Absence of the transfer of learning from the training to the workplace,

123

inadequate teaching resources, research skills should be developed, proper mechanism for teacher collaboration, prepare students adequately for national examinations, employing of active teaching, usage of technology for teaching as a teaching and learning tool, designing of effective writing activities, prepare reading activities, proper classroom management, the use of textbook properly, designing of listening activities, prepare speaking activities and other teachers' internal attributes such as personality, motivation, and dedication continue to be the most significant restrictions in the teaching profession. Teachers were not afforded the same opportunities to study and maintain their skills by participation in professional development programs. Teacher classroom management with a mean of (11.0) and availability of teaching resources also with a mean of (11.0) reveals the respondent's consensus of other career continuous development obstacles. Using of technology for teaching and teachers' collaboration. A mean of (10.0) respectively, are the other hindrances agreed on by the participants as their specific needs. The participants feel their negative experiences in maintaining transparency in educational institution.

According to other teachers, their specific needs are active teaching, developing research skills, and transferring learning from training to the workplace. Therefore, the statistics in figure 4.5 described that the most common specific needs are personal to the teachers in the conveyance of guidelines in the classroom for students to improve in their academic performance. These responses underline how crucial it is for educators and learners to have access to resources.

The following were the findings in accordance to the research objectives:

Objective 1: In-service trainings, workshops, and distance learning courses were among the professional development options accessible to teachers in the district. The

124

majority of the teachers who took part in this study (90%) believe that Continuous Professional Development Initiatives help them improve their professionalism. However, approximately thirty one percent (31%) are not satisfied with the way CPD are organized. Again majority, thus fifty six percent (56%) strongly agreed that breaks and vacations are the best time to participate in CPD activities.

Objective 2: various constraints faced by the teachers in engaging continuous development programmes. From the responses, the highest and lowest ranked constraints, were insufficient or no incentives and the unsuitability of Continuous Professional Development (CPD) duration respectively. Most teachers in the district complained that incentives to teachers are insufficient. As a result, they are not motivated to engage in continuous development programmes.

As a result, there may not be enough resources for students to participate in individual or small group classes in subjects that require extra concentration to supplement current knowledge, understanding, abilities, and skills. As a result, providing sufficient incentives becomes the most practicable and practical option for teachers to bring their pupils along with them. Furthermore, the nature of the course's respondents teaches, the amount of time available for the subjects, and the classroom/school setting may all be elements that make using incentives the most realistic and efficient way to deliver. Personal financial problems was the second ranked constraint that limited the engagement of Continuous Professional Development (CPD) programmes by teachers. The third ranked constraint was crowded classes. The teachers complained that crowded classes prevent them from having sufficient time for Continuous Professional Development (CPD). Thus, the fourth constraint which is time management.

Objective 3: In analyzing the effect of teachers' academic qualification on student's academic performance, it was found that, there was a positive relationship between teachers with degree qualification and students' scores. However, there was a negative relationship between diploma qualification and student scores. This implies that students who have teachers with diploma qualification do not perform as well as those who have teachers with postgraduate qualification.

Objective 4: According to the statistics from the respondents, most specific needs of teachers for their professional development encounters is using textbook properly. The average means for item 7 (12.0). This is because, textbook can serve different purposes for teachers: a core resource, a source of supplementary material, an inspiration for classroom activities, and a curriculum itself. For the statement technology for teaching which has average mean of 11.0. Preparation of students for national exam and designing writing activities average score results of 11.0 respectively also prove the teacher's specific needs to engage in an ongoing professional development activity. Teachers also have to be familiar and skillful on ICT in facilitating the students learning.

5.2 Conclusion

In conclusion, the majority of respondents in the study reported that professional development programs positively impacted their performance. Among the most beneficial methods were in-service training, distance education, and workshops. Teachers expressed a strong interest in utilizing Distance Learning Courses and Programs and participating in workshops during breaks and vacations if given the opportunity. However, they were dissatisfied with the current Professional Development Programs available to them. While overall teachers' proficiency

improved as a result of these programs, some continued to perform poorly, which was attributed to programs not adequately meeting their classroom needs and teachers' failure to apply the acquired knowledge effectively. Teachers emphasized the importance of sufficient incentives for implementing Continuous Professional Development (CPD), but acknowledged that subject and resource limitations might have an impact. Additionally, factors like overcrowded classrooms, time management challenges, and personal aspects such as motivation were cited as contributing to teachers' underperformance. The recent BECE test results indicated that none of the schools in the study achieved a 50% pass rate, though it does not necessarily reflect the overall performance of the district.

5.3 Recommendations

1. The following recommendations are being made based on the findings of this study: Teachers should be provided with frequent and ongoing professional development opportunities by the Ghana Education Service. All teachers should be required to participate in training programs on cross-cutting topics, while those on specific themes and subjects should be based on scientific needs assessments that consider the unique requirements of instructors. Training programmes such as time management and motivation can be done by examining and awarding successful teachers who qualify for the categories of measures put in place by the officers of the CPD programmes and appropriate and recognized certificates that contribute significantly to their promotions within the Ghana Education Service.

2. Professional Development Programs should be designed to expose teachers to a variety of teaching approaches so that they may select the way that is most suited for a given subject or topic in any setting. According to the findings of

127

this study, most instructors are either constrained in the teaching techniques they are familiar with or lack the necessary resources to implement certain teaching methods, even if they are suited for their environment. All stakeholders in the Basic Education Sector must make the supply of suitable teaching and learning materials in sufficient numbers; a priority in order to promote teaching and learning, which serves as the cornerstone for a strong human resource base for the country. ICT programmes should be organized for the teachers so that they can use that as a means to deliver teaching and learning in the classroom

3. Teachers' application of what they've learned in Professional Development Training Programs should be regularly reviewed to ensure that relevant information and skills are transferred to the pupils they teach. In this regard, head teachers and circuit supervisors are vital, and the Ghana Education Service's Training and Curriculum Development Unit should guarantee that they are an integral element of participation in these programs. However, for this to be effective, training materials should be available to participants as reference materials following training programmes.

4. Policymakers should adopt standards for professional development to guide the design, evaluation, and funding of professional learning provided to educators. These standards might reflect the features of effective professional learning outlined in this report as well as standards for implementation.

5. Policymakers and administrators could evaluate and redesign the use of time and school schedules to increase opportunities for professional learning and collaboration.

6. Needs assessments should be conducted using data from staff surveys to identify areas of professional learning most needed and desired by educators. Data from these sources can help ensure that professional learning is not disconnected from practice and supports the areas of knowledge and skills educators want to develop.

7. The Ghana Education Service can provide technology-facilitated opportunities for professional learning and coaching to address the inability use of ICT for teaching and learning.

REFERENCES

Abakah, E. (2022). Exploring the continuing professional development (CPD) needs of basic schoolteachers in Ghana. *International Journal of Teacher Education and Professional Development (IJTEPD)*, *5*(1), 1-15.

Abosi, C. O., & Brookman-Amissah, J. (1992). Introduction to education in Ghana Accra.

Acheampong, I. K. (2006). *Human resource development, labour market concepts and operations*. Cape Coast: Catholic Mission Press.

Adagiri, S. O. (2014). *A Comparative Study of Teachers' Continuing Professional Development (CPD) in Nigeria and England: A Study of Primary Schools in Abuja and Portsmouth* (Doctoral dissertation, University of Portsmouth).

Adedeji, S. O. & Owoeye, J. S. (2002). Teacher quality and resource situation as determinants of students' academic achievement in Ogun State Secondary Schools. *Journal of Educational Management, 4*, 36-45.

Adeyemi, T. O. (2006). Organisational climate and teachers' job performance in primary schools in Ondo State, Nigeria: An analytical survey. *African Journal of Cross-Cultural psychology and sport facilitation*, *8*, 38-54.

Agyei, D. D., & Voogt, J. M. (2014). Examining factors affecting beginning teachers' transfer of learning of ICT-enhanced learning activities in their teaching practice. Australasian Journal of Educational Technology, 30(1), 92–105. https://doi.org/10.14742/ajet.499

Akiba, M., & Liang, G. (2016). Effects of teacher professional learning activities on student achievement growth. *The Journal of Educational Research, 109*(1), 99-110.

Akinyemi, A. F., Rembe, S., Shumba, J., & Adewumi, T. M. (2019). Allocation of time in communities of practice: A strategy to enhance continuing professional teachers' development of high schools teachers'. *Cogent Social Sciences, 5*(1), 1583629.

Akyeampong, K. (2001). *Educational expansion and access in Ghana: A review of 50 years of challenge and progress.* University of Sussex, United Kingdom.

Alhassan, S., (2007). Modern approaches to research in educational administration for research students. Amakom, Kumasi.Payless Publications Limited.

130

Alias, S. A., Noor, N. M., Rahim, A. R. A., & Ong, M. H. A. (2017). The influence of work environment factors to the effectiveness of training among civil service employees in Malaysia. International Journal of Academic Research in Business and Social Sciences, 7(4), 1081–1097.

Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of Educational Multimedia and Hypermedia, 13*(1) 93 - 106.

Amissah, P. A. K., Sam-Tagoe, J., Amoah, S. A., & Mereku, K. D. (2002). Teacher education: its principles and practice. *Ghana. Faculty of Professional Studies in Education, University of Education, Winneba*.

Ankomah, Y., Koomson, J., Bosu, R., & Oduro, G. K. T. (2005). Implementing Quality Education in Low-Income Countries (Edqual). *University of Cape Coast, Ghana*.

Ansel, S.E. & Park, J. (2003). Technology counts 2003: Tracking tech trends. *Education Week, 22*(35), 43 44.

Antypas, G. (2021). Innovation in education–administration and actions of encouragement & support in primary education. *European Journal of Education Studies*, *8*(10).

Aremu, A. O. and Sokan, B. O. (2003), A Multi-Causal Evaluation of Academic Performance of Nigerian Learners: Issues and Implications for National Development. Department of Guidance of Counseling, University of Ibadan, Ibadan. 89pp

Ary, D., Jacobs, L. C., & Razavieh, A. (1972). Introduction toresearch in education. *New York: Holt, Rinehartand Winston*.

Ary, D., Jacobs, L. C., Razavieh, A. & Sorensen C. (2006). *Introduction to research in education, (7th ed.)*. Australia: Thomson Wadsworth.

Asiedu, P. P. (2017). *Free primary school education policy in Ghana (is basic education for all attainable through the removal of fees)* (Doctoral Dissertation, Kdi School of Public Policy and Management).

Asikhia O. A. (2010), Students and teachers' perception of the causes of poor academic performance in Ogun state secondary schools: Implications for counselling for national development. In European Journal of Social Sciences 13(2): 229 - 242.

Aurobindo, S. (1993). *The integral yoga: Sri Aurobindo's teaching and method of practice.* Lotus Press.

Bacchus, F. & Grove, A. J. (1996). Utility independence in a qualitative decision theory. *KR, 96*, 542-552.

Bakiner, O. (2021). Truth commission impact on policy, courts, and society. *Annual Review of Law and Social Science, 17*, 73-91.

Bartlett, S., Burton, D., & Peim, N. (2001). *Introduction to education studies.* London. Paul Chapman Publishing.

Basharat, T., Iqbal, H. M., & Bibi, F. (2011). The Confucius philosophy and Islamic teachings of lifelong learning: Implications for professional development of teachers. *Bulletin of Education and Research*, *33*(1).

Biney, B. A. (2018). *Teaching and learning materials, teacher-factors, student characteristics and performance of home economics students in core subjects: a case of Aburaman Senior High School* (Doctoral dissertation, University of Cape Coast).

Birman, B., Desimone, L., Porter, A. & Garet M. (2000). Designing professional development that works. *Educational Leadership, 57*(8), 28-33.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: principles, policy & practice*, *5*(1), 7-74.

Blankenship, S., Ruona, W. (2007). Professional learning communities and communities of practice*:* A comparison of models, literature review. University of Georgia, Athens, GA. retrieved from *https://files.eric.ed.gov/fulltext/ED504776.pdf.*

Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. (2010). Transfer of training: A meta-analytic review. Journal of Management, 36(4), 1065 1105. https://doi.org/10.1177/0149206309352880

Bolam, R., & McMahon, A. (2004). Literature, definitions and models: towards a conceptual map. *International handbook on the continuing professional development of teachers*, 33-63.

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 33*(8), 3-15.

132

Botke, J. A., Jansen, P. G. W., Khapova, S. N., & Tims, M. (2018). Work factors influencing the transfer stages of soft skills training: A literature review. Educational Research Review, 24(January 2017), 130–147. https://doi.org/10.1016/j.edurev.2018.04.001

Boyle, B., Lamprianou, I., & Boyle, T. (2005). A longitudinal study of teacher change: What makes professional development effective? Report of the second year of the study. *School Effectiveness and School Improvement, 16*(1), 1-27.

Braun, V. & Clark, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Brookfield, S. (2005). Power of critical theory for adult learning and teaching. Berkdire, Great Britain: McGraw-Hill Education.

Browell, S. (2000). Staff development and professional education: a cooperative model. *Journal of workplace learning*.

Brown C.L., & Aydeniz M. (2017) Maximizing Science Teachers' Pedagogical Potential For Teaching Science Literacy to ELLs: Findings from a Professional Development Program. In: de Oliveira L., Campbell Wilcox K. (eds) Teaching Science to English Language Learners. Palgrave Macmillan, Cham

Brown, C. L., & Aydeniz, M. (2017). Maximizing science teachers' pedagogical potential for teaching science literacy to ELLs: Findings from a professional development program. In *Teaching science to English language learners* (pp. 83-110). Palgrave Macmillan, Cham.

Brownsword, R. (2019). Regulatory fitness: Fintech, funny money, and smart contracts. *European Business Organization Law Review*, *20*(1), 5-27.

Buczynski, S. & Hansen, C. B. (2010). Impact of professional development on teacher practice: Uncovering connections. *Teaching and Teacher Education, 26*(3), 599–607.

Burke, L., & Hutchins, H. M. (2008). A study of best practices in training transfer and proposed model of transfer. Human Resource Development Quarterly, 19(2), 107–128. https://doi.org/10.1002/hrdq.1230

Butakor, P. K., & Dziwornu, M. (2018). Teachers' perceived causes of poor performance in mathematics by students in basic schools from Ningo Prampram, Ghana.

CALID, (2018). Sagnarigu Municipal score below 50% at annual BECE.

Calvert, L. (2016). *Moving from compliance to agency: What teachers need to make professional learning work.* Oxford, OH: Learning Forward and NCTAF.

Champion, R. (2003). Taking measure: The real measure of professional development programmes' effectiveness lies in what participants learned. Journal of Staff Development, 24(1), 1–5.

Chiaburu, D. S., & Marinova, S. V. (2005). What predicts skill transfer? An exploratory study of goal orientation, training self-efficacy and organizational supports. International Journal of Training and Development, 9(2), 110–123. https://doi.org/10.1111/j.1468-2419.2005.00225.x

Clarke, N. (2013). Transfer of training: The missing link in training and the quality of adult social care. Health & Social Care in the Community, 21(1), 15–25. https://doi.org/10.1111/j.1365-2524.2012.01082.x

Clewell, B. C. (2007). Promise or Peril?: NCLB and the Education of ELL Students. *Urban Institute (NJ1)*.

Coalition, B. B. E. (2013). Each Child Learning, Every Student a Graduate. A Bold Vision for Lifelong Learning Beyond 2015.

Cochran-Smith, M., & Lytle, S. L. (2001). Beyond certainty: Taking an inquiry stance on practice. In A. Lieberman & L. Miller (Eds.), Teachers caught in the action: Professional development that matters (pp. 45–61). New York, NY: Teachers College Press.

Coetzer, I. A. (2001). A survey and appraisal of outcomes-based education (OBE) in South Africa with reference to progressive education in America. *Educare*, *30*(1), 73-93.

Cohen, D. K., & Hill, H. C. (2000). Instructional policy and classroom performance: The mathematics reform in California. *Teachers College Record, 102*(2), 294–343.

Collinson, V. (2000). Staff development by any other name: Changing words or changing practices. *The Educational Forum, 64*(2), 124-132.

Cordingley, P. (2015). The contribution of research to teachers' professional learning and development. *Oxford review of education*, *41*(2), 234-252.

Council of the European Union. (2011), *Council Resolution on a renewed European agenda for adult learning (2011/C 372/01),* Official Journal of the European Union, http://eur-lex.europa.eu/legal content/EN/TXT/?uri=CELEX:32011G1220 (01).

Creswell, J. W. (2003). *Qualitative, quantitative and mixed methods approaches.* London: Sage Publications.

Creswell, J.W. (1994). Research Design: Qualitative and Quantitative Approaches. London: Sage.

Creswell, J.W., Hanson, W. E., Clark Plano, V. L. & Morales, A. (2007). Qualitative research design: Selection and implementation. *The Counseling Psychologist, 32*(2), 236-264.

Croft, A., Coggshall, J., Dolan, M., Powers, E., Killion, J. (2010). Job-embedded professional development: What it is, who is responsible, and how to get it done well. *National Comprehensive Center for Teacher Quality.* Retrieved from: *https://learningforward.org/wp-content/uploads/2017/08/job-embedded-professionaldevelopment.pdf.*

Croft, A., Coggshell, J. G., Dolan, M., Powers, E., & Killion, J, (2010). Job-embedded professional development: What it is, who is responsible, and how to get it done well. National Comprehensive Center for Teacher Quality. Retrieved from *http://files.eric.ed.gov/fulltext/ED520830.pdf.*

Cromwell, S. E., & Kolb, J. A. (2004). An examination of work-environment support factors affecting transfer of supervisory skills training to the workplace. Human Resource Development Quarterly, 15(4), 449–471. https://doi.org/10.1002/hrdq.1115

Dadds, M. (2014). Continuing professional development: Nurturing the expert within. *Professional development in education*, *40*(1), 9-16.

Darling-Hammond, H. & Richardson, N. (2009). Teacher learning: What matters? *Research Review, 66*(5), 46-53.

Darling-Hammond, L. & Richardson, N. (2009). Research review/teacher learning: What matters? *How Teachers Learn, 66,* 46-53.

Darling-Hammond, L., Wei, R.C., Andree, A., Richardson, N., Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher development in the United States and Abroad. National Staff Development Council. Retrieved from   *https://learningforward.org/docs/default-source/pdf/nsdcstudy2009.pdf.*

Day, C. (1999). *Developing teachers: The challenges of lifelong learning. Educational change and development series.* Bristol, PA: Taylor & Francis, Inc.

Day, C., & Sachs, J. (2004). Professionalism, performativity and empowerment: Discourses in the politics, policies and purposes of continuing professional development. *International handbook on the continuing professional development of teachers*, *3*, 32.

De Meester, J., De Cock, M., Langie, G., & Dehaene, W. (2021). The process of designing integrated STEM learning materials: Case study towards an evidence-based model. *European Journal of STEM Education, 6*(1), 10.

Demirkasımoğlu, N. (2010). Defining "Teacher Professionalism" from different perspectives. *Procedia-Social and Behavioral Sciences*, *9*, 2047-2051.

Desimone, L.M. (2011). A primer on effective professional development. *Phi. Delta Kappan, 92*(6), 68-71.

Dewey, J. (2016). Excerpts from democracy and education (1916). *Schools*, *13*(1), 127-139.

Diaz-Maggioli, G. (2004). *Teacher-centered professional development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Earley, P., & Bubb, S. (2004). Managing teacher workload. *Managing Teacher Workload*, 1-144.

Edward Brenya, et al (2021) Assessing the Effects of Regimented Administrative Structure of Education on Pupils Academic Performance of Basic Schools in Military Barracks, Ghana. Journal of Social and Development Sciences (ISSN 2221-1152) Vol. 12, No. 1, pp. 25-35

England, M. (2020). *Exploring Teachers' Perceptions of Formal and Informal Professional Development*. Lincoln Memorial University.

Essel, R., Badu, E., Owusu-Boateng, W. & Saah, A. A. (2009). In-service training: An essential element in the professional development of teachers. *Malaysian Journal of Distance Education, 1*1(2), 55 – 64.

Evans, L. (2011). The 'shape'of teacher professionalism in England: Professional standards, performance management, professional development and the changes proposed in the 2010 White Paper. *British educational research journal*, *37*(5), 851-870.

Farrant, J. S. (1980). *Principles and practice of education.* Essex: Longman Group.

Fauske, J. R., & Raybould, R. (2005). Organizational learning theory in schools. *Journal of Educational Administration*.

Fenwick, T. J. (2004). Toward a critical HRD in theory and practice. *Adult education quarterly*, *54*(3), 193-209.

Fishman, B., Best, S., Marx, R., & Tal, R. (2001, March). Fostering teacher learning in systemic reform: Linking professional development to teacher and student learning. In *Annual Meeting of the National Association of Research in Science Teaching, St. Louis, MO*.

Frost, D., Durrant, J., Head, M., & Holden, G. (2000). *Teacher-led school improvement.* London: Routledge/Falmer.

Fullan, M. & Steigelbauer, S. (1991). *The meaning of educational change* (2nd ed.). New York: Teachers College Press.

Fullan, M. (2007). Change the terms for teacher learning. *The Learning Professional*, *28*(3), 35.

Ganser, T. (2000). An ambitious vision of professional development for teachers. *NASSP bulletin*, *84*(618), 6-12.

Ganzer, T. (Ed.) (2000). Ambitious visions of professional development for teachers [Special Issue]. National Association for Secondary School Principals, (84)618.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American educational research journal*, *38*(4), 915-945.

GES (2020) BECE Analysis (2018-2020), Sagnarigu Municipal Education Office Edward Brenya, et al (2021) Assessing the Effects of Regimented Administrative Structure of Education on Pupils Academic Performance of Basic Schools in Military Barracks, Ghana. Journal of Social and Development Sciences (ISSN 2221-1152) Vol. 12, No. 1, pp. 25-35

Ghana Statistical Service. (2012). *2010 population and housing census: Summary report of final results.* Accra. Sakoa Press Limited.

Ghana. Education Review Committee, & National Liberation Council (Ghana). (1967). Report of the Education Review Committee.

Given, L. M. (Ed.). (2008). *The Sage encyclopedia of qualitative research methods*. Sage publications.

Gorard, S., & Taylor, C. (2004). *Combining methods in educational and social research*. McGraw-Hill Education (UK).

Gordon, S. P. (2004). *Professional development for school improvement: Empowering learning communities*. Allyn & Bacon.

Grant, C. M. (1996). Professional development in a technological age: New definitions, old challenges, new resources. *Retrieved April*, *11*, 2003.

Grant, L. D. & Pomson, A.D.M. (2003) From In-service Training to Professional Development: Alternative Paradigms In Israel For Diaspora Educators. The Jewish Agency For Israel.

Gray S. L. (2005). *An enquiry into continuing professional development for teachers.* University of Cambridge.

Green, T., Allen, M. (2015). Professional development urban schools: What do teachers say? *Journal of Inquiry & Action in Education, 6,* 53-79.

Grossman, R., & Salas, E. (2011). The transfer of training: What really matters. International Journal of Training and Development, 15(2), 103–120. https://doi.org/10.1111/j.1468-2419.2011.00373.x

Guskey, T. (2002). *How's my kid doing? A parents' guide to grades, marks, and report cards.* San Francisco: Jossey Bass.

Guskey, T. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*(3/4), 381-391.

Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

Guskey, T., & Yoon, K. (2009). What works in professional development? Phi Delta Kappan: Professional Learning. Retrieved from *http://www.k12.wa.us/Compensation/pubdocs/Guskey2009whatworks.pdf*.

Haggis, S. M. (1991). *Education for all: Purpose and context. World Conference on Education for All (Jomtien, Thailand, March 5-9, 1990). Monograph I. Roundtable Themes I.* Unesco Press, 7, place de Fontenoy, 75700 Paris, France.

Hammond, L. D. (1990). Restructuring to promote learning in America's schools. *Retrieved December 31, 2021, from http://www.ncrel.org.*

Hargreaves, A. 1994. *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. London: Cassell.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Rout/edge.

Hidden curriculum (2014). In Abbott S. (Ed.). The glossary of education reform. Retrieved from http://edglossary.org/hidden-curriculum.

Hidden curriculum (2014). In Abbott S. (Ed.). The glossary of education reform. Retrieved from http://edglossary.org/hidden-curriculum.

Hochberg, E. D., & Desimone, L. M. (2010). Professional development in the accountability context: Building capacity to achieve standards. *Educational psychologist*, *45*(2), 89-106.

Holton, E. F., Bates, R. A., & Ruona, W. E. (2000). Development of a generalized learning transfer system inventory. Human Resource Development Quarterly, 11(4), 333–360.

Hord, S. M. (Ed.). (2004). Learning together leading together: Changing schools through professional learning communities. New York, NY: Teachers College Press.

Howe, K. R. (1988). Against the quantitative-qualitative incompatability thesis, or, Dogmas die hard. Educational Researcher, 17(8), 10-16.

Iheanachor, O. U. (2007). *The influence of teachers' background, professional development and teaching practices on students' achievement in mathematics in Lesotho.* Unpublished Master's Dissertation, University of South Africa.

Information Resources Management Association (2014). Adult and Continuing Education: Concepts, Methods, Tools and Applications. Information Science Reference (an imprint of IGI Global, USA)

Ingersoll, R. M., Sirinides, P., & Dougherty, P. (2018). Leadership matters: Teachers' roles in school decision making and school performance. *American Educator, 42*(1), 13-17.

Ingiaimo, M. S. (2012). *A phenomenological study of motivations, experiences and reflections as related to teacher training and development in Tanzania.* Liberty University.

Ingvarson, L., Meier's, M., & Beavis, A. (2005). Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes & efficacy. *Education Policy Analysis Archives, 13*(10), 1-28.

Kaff, M. (2004). Multitasking is militating: Why special educators are leaving the field. *Preventing School Failure, 42*(2), 10-17.

Kaslow, N. J. (2004). Competencies in professional psychology. *American psychologist*, *59*(8), 774.

Kedro, M. J., & Short, W. E. (2004). Many schools, one complex measure. *The Learning Professional*, *25*(3), 44.

Kelly, P. (2006). What is teacher learning? A socio-cultural perspective. *Oxford Review of Education, 32*(4), 505-519.

Kennedy, M. (2016). How does professional development improve teaching*? Review of Educational Research, 86*, 945-980.

Kennedy, A. 2005. Models of continuing professional development (CPD): a framework for analysis. *Journal of In-Service Education, 31*(2), 235–250.

Kenner, C. & Weinerman, J. (2011). Adult learning theory: Applications to non-traditional college students. *Journal of College Reading and Learning, 41*(2), 87-96.

Khy, A. B. (2017) Professional Development. Retrieved from: https://www.scribd.com/document/339117135/Professional-Development/

Khy, A. B. (2017) Professional Development. Retrieved from: https://www.scribd.com/document/339117135/Professional-Development/

Knowles, M. S. (1984). The Adult Learner: A Neglected Species (4th ed.). *Gulf Publishing Company.*

Kochhar, S. K. (2004). *Methods & techniques of teaching.* New Delhi: Sterling Publishers Pvt. Ltd.

Koontza, H.& Weihrich, H. (1988) management. New York: McGraw-Hill. Chicago

Kose, B. W., & Lim, E. (2011). Transformative professional learning within schools: Relationship to teachers' beliefs, expertise and teaching. *The Urban Review*, *43*(2), 196-216.

Kumar, R. S., Subramaniam, K., & Naik, S. (2015). Professional development workshops for in-service mathematics teachers in India. *The first sourcebook on Asian research in mathematics education: China, Korea, Singapore, Japan, Malaysia and India*, *2*, 1631-1654.

Kumar, V. (2015) Professional Development. Leadership and Development. Retrieved from https://www.slideshare.net/kumarvivek107/professional-development44634028

Kumar, V. (2015) Professional Development. Leadership and Development. Retrieved from https://www.slideshare.net/kumarvivek107/professional-development44634028

Lancaster, S., Milia, L. D., & Cameron, R. (2013). Supervisor behaviours that facilitate training transfer. Journal of Workplace Learning, 25(1), 6–22. https://doi.org/10.1108/13665621311288458

Lathin, D. Smith R & Deci, EL (1978). On the importance of self Determination for intrinsically motivated behaviour, personality and psychology. *Bulletin 4*, 44-446.

Lavrakas P.J. (2008) *Encyclopedia of survey research methods.* Sage research Methods.

Lawless, K. & Pellegrino, J. (2007). Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to pursue better questions and answers. *Review of Educational Research, 77*(4), 575-614.

Leu, E. (2004). The patterns and purposes of school-based and cluster teacher professional development programs. *Issues Brief, 1*.

Lim, D. H., & Morris, M. L. (2006). Influence of trainee characteristics, instructional satisfaction and organizational climate on perceived learning and training transfer. Human Resource Development Quarterly, 17(1), 85–115. https://doi.org/10.1002/hrdq.1162

Lincoln, Y. S., and Guba, E. G. (2000). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin and Y. S. Lincoln (Eds.), Handbook of qualitative research (2nd ed., pp. 163-188). Thousand Oaks,

Linder, S.M. (2011). The facilitator's role in elementary mathematics professional development. *Mathematics Teacher Education and Development, 13*.2, 44-66.

Lindstrom, P. H., & Speck, M. (2004). *The principal as professional development leader*. Corwin Press.

Lippitt, G. L., Knowles, M. S., & Knowles, M. S. (1984). Andragogy in action: applying modern principles of adult learning. Knowles, M.S. (1990). *The adult learner: A neglected species. (4th ed.).* Houston: Gulf Publishing Company.

Lokesh, K. (1984). *Methodology of educational research.* New Delhi: Varil Education Books.

Luft, J. A., & Hewson, P. W. (2014). Research on teacher professional development programs in science. In *Handbook of Research on Science Education, Volume II* (pp. 903-924). Routledge.

MacPhail, A. (2011). Professional learning as a physical education teacher educator. *Physical education & sport pedagogy*, *16*(4), 435-451.

Madden, C. A., & Mitchell, V. A. (1993). Professions, standards and competence: a survey of continuing education for the professions.

Major, C. H., Harris, M. S., & Zakrajsek, T. (2015). *Teaching for learning: 101 intentionally designed educational activities to put students on the path to success*. Routledge.

Markley, T. (2004). Defining the effective teacher: Current arguments in education. *Essays in Education, 11*(3), 114.

Marshall, Catherine and Olivia, Marciela (2010). Leadership for Social Justice: Making Revolutions in Education (2nded.). New York: Allyn and Bacon.

Marzano, R. (2006). *Classroom assessment & grading that work.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J. (2003). What works in school: Translating research into action. Association for Supervision and Curriculum Development. Alexandria, Virginia. USA

McClusky, H. Y. (1970). *An approach to a differential psychology of the adult potential*.

McGlinchey, C. (2021). Procrastination among post-16 students: how is it experienced and how can we reduce it? The views of students, teachers and educational psychologists.

McQuiggan, C. A. (2007). The role of faculty development in online teaching's potential to question teaching beliefs and assumptions. *Online Journal of Distance Learning Administration*, *10*(3), 1-13.

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

Meister, D. G. (2010). Experienced secondary teachers 'perceptions of engagement and effectiveness: A guide for professional development. *Qualitative Report, 15*(4), 880898.

Mekonnen, A. (2014). *Practices and challenges of school based continuous professional development in secondary schools of Kemashi Zone* (Doctoral dissertation, Jimma University).

Merrill, B. (2004). Biographies, class and learning: The experiences of adult learners. *Pedagogy, Culture & Society, 12*(1), 73–94.

Mingaine, L. (2013). Leadership Challenges in the Implementation of ICT in Public Secondary Schools, Kenya. *Journal of education and learning*, *2*(1), 32-43.

Ministry of Education Science and Sports. (2008). *Preliminary education sector performance report.* Accra: Ghana Ministry of Education.

143

Ministry of Education, Science and Sports (2008), Preliminary Education Sector Performance Report. Accra: Ghana Ministry of Education.

Ministry of Education. (1994), *Report of the education reforms review committee on pre-tertiary education, Accra.*

Mizell, H. (2010). *Why Professional Development Matters*. Learning Forward. 504 South Locust Street, Oxford, OH 45056.

MOESS. (2002). *Basic education sector assessment school review: Curriculum instruction and teacher training colleges*. Accra, Ghana: Ministry of Education.

Mugenda, O. & Mugenda, A. (1999). *Research methods: Quantitative and qualitative approaches.* Nairobi: Publishers ACT Press.

Mushtaq, I., & Khan, S. N. (2012). Factors affecting students' academic performance. *Global journal of management and business research*, *12*(9), 17-22.

Mwita, K. (2015). *Benefits of continuous professional development on teaching effectiveness* (Doctoral dissertation).

NAIFA. (2016). *Professional Development and Education*: Everything begins with me. Retrieved from: *http://www.naifaleadershipacademy.com/session-4.html*

Na-Nan, K., Chaiprasit, K., & Pukkeeree, P. (2017). Influences of workplace environment factors on employees' training transfer. Industrial and Commercial Training, 49(6), 303–314. https://doi.org/10.1108/ICT-02-2017-0010

National Council on Economic Education. 1997. The national voluntary content standards in economics, http://www .ncee.net/ea/standards (accessed November, 2021).

National Professional Development Center on Inclusion. (2008). What do we mean by professional development in the early childhood field? Chapel Hill: The University of North Carolina, FPG Child Development Institute, Author.

National Staff Development Council. (2009). NSDC definition for Professional Development Oxford, OH: Author.

National Staff Development Council. (2009). NSDC definition for Professional Development Oxford, OH: Author.

Noyce, P. (2006). Professional development: How do we know if it works? *Education Week, 26*(3), 36-37.

NOYED. (2013). *A situational report on youth in the tamale metropolis: Towards the youth development*. Tamale: NOYED-Ghana

Nsia-Peprah, Y. (2006). *Social dimensions of development.* Kwame Nkrumah University of Science and Technology. Kumasi: Faculty of Planning and Land Economy.

Oduro G. K. T., & MacBeath, J. (2003). Traditions and tensions in leadership: The Ghanaian experience. Cambridge Journal of Education. 33, (3), 442-455.1990, World Declaration on Education for All, Article 1, New York, Inter-Agency Commission (UNDP, UNESCO, UNICEF, World Bank) for the World Conference on Education for All, 1990.

Oduro, A. D. (2000). *Basic Education in the post reform period.* Accra: Center for Policy Analysis (CEPA).

OECD, U. (2002). Financing education, investments and returns, analysis of the world education indicators.

OECD. (2019). OECD Economic Outlook, Volume 2019 Issue 2. Retrieved from https://www.oecd.org/newsroom/43125523.pdf

Okyere, S.; Frimpong Boamah, E.; Asante, F. and Yeboah, T. (2021) *Policies and Politics Around Children's Work in Ghana,* ACHA Working Paper 8, Brighton: Action on Children's Harmful Work in African Agriculture, IDS, DOI: 10.19088/ACHA.2021.003

Onwuegbuzie, A.J. (2002). Positivists, post-positivists, post-structuralists, and post-modernists: Why can't we all get along? Towards a framework for unifying research paradigms. Education, 122(3), 518–530.

Onwumere, O. (2006). *Amaechi's Consolidation of the project.* Downloaded from www.pointplanknews.com. On 8th May, 2021.

Opfer, V. D. & Pedder, D. (2011). The lost promise of teacher professional development in England. *European Journal of Teacher Education, 34*(1), 3 - 24.

Otoo, D. (2007). *Comparative Study of Academic Performance of Public and Private JSS Graduate: A Case Study of Four Selected Senior Secondary Schools in the Kumasi Metropolis*. M.ED Educational Administration and Management Thesis. Centre for Educational Policy Studies University of Education, Winneba.

Paaku, V. E. (2008). *Factors accounting for poor performance in basic education certificate examination in some selected junior secondary schools in Ajumako; Enyan Essiam District.* Unpublished Master's Thesis, Department of Special Education, University of Education, Winneba.

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice (4th ed.)*. Thousand Oaks, CA: SAGE.

Paula VaraidzaiMakondo & Davison Makondo (2020) Causes of Poor Academic Performance in Mathematics at Ordinary Level: A Case of Mavuzani High School, Zimbabwe. International Journal of Humanities and Social Science Invention (IJHSSI) ISSN (Online): 2319 – 7722

Polly, D. & Hannafin, M. J. (2011). Examining how learner-centered professional development influences teachers'espoused and enacted practices. *Journal of Educational Research,* 104(2), 120-130.

Quayson, A. J (1996). *"FCUBE" Programme*. Leaflet, Accra, Ministry of Education.

Raliphada, N., Coetzee, J., & Ukpere, W. I. (2014). Organisational factors affecting learning transfer in the South African public service. Mediterranean Journal of Social Sciences, 5(2), 741–754.

Rebora, A. (2009). Survey shows teacher satisfaction climbing over quarter century. *Education Week, 28*(23), 12

Reeve, J., & Deci, E. L. (1996). Elements of the competitive situation that affect intrinsic motivation. *Personality and Social Psychology Bulletin*, *22*(1), 24-33.

Reeves, D. (2011). *Transforming professional development into student results.* Alexandria, VA: ASCD.

Rice, M. (2017). Describing K-12 online teachers' online professional development opportunities for students with disabilities. *Online Learning Journal*, *21*(4).

Richardson, V. (1997). *Constructivist teacher education: Building new understandings*. Washington: Falmer Press.

146

Richardson, V. (2003). The dilemmas of professional development. *Phi delta kappan*, *84*(5), 401-406.

Rolleston, C., & Adefeso-Olateju, M. (2014). De facto privatisation of basic education in Africa: A market response to government failure? A comparative study of the cases of Ghana and Nigeria. *Education, Privatisation and Social Justice: Case Studies from Africa, South Asia and South East Asia*, 25-44.

Rotermund, S., DeRoche, J., & Ottem, R. (2017). Teacher Professional Development by Selected Teacher and School Characteristics: 2011-12. Stats in Brief. NCES 2017-200. *National Center for Education Statistics*.

Rowe, K. (2003). The importance of teacher quality as a key determinant of students' experiences and outcomes of schooling.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

Sabah, S. A., Fayez, M., Alshamrani, S. M., & Mansour, N. (2014). Continuing professional development (CPD) provision for science and mathematics teachers in Saudi Arabia: Perceptions and experiences of CPD providers. *Journal of baltic science education*, *13*(1), 91.

Schlechty, P. C. (2002). *Working on the Work: An Action Plan for Teachers, Principals, and Superintendents. The Jossey-Bass Education Series*. Jossey-Bass, 989 Market Street, San Francisco, CA 94103-1741.

Sekyere, E. A (2002). *Teachers guide to promotion interview.* Kumasi: Afosek Educational Consultancy Centre.

Shaffer, L. & Thomas-Brown, K. (2015). Enhancing teacher competency through co-teaching and embedded professional development. *Journal of Education and Training Studies, 3*(3), 117-125.

Shukla, P. (2008). Essentials of marketing research. Shukla & Ventus publishing Aps. Self-determination website, URL: *http://www.psych.rochester.edu/SDT/theory.php, (20.11.2021)*

Silverman, D. (1993). Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction. London: Sage.

Skinner, B. F. (1974). Behavior modification. *Science*, *185*(4154), 813-813.

Slabine, N. A. (2011) Evidence of effectiveness. Learning Forward. 504 S. Locust St. Oxford, OH 45056.

Slabine, N. A. (2011) Evidence of effectiveness. Learning Forward. 504 S. Locust St. Oxford, OH 45056.

Sparks, D & Hirsh, S. (2000). Strengthening professional development. *Education Week, 19*(37), 42-61.

Sparks, D. (2002). *Designing powerful professional development for teachers and principals.* Oxford, OH: National Staff Development Council.

Spear, Gould, & Lee. (2000). *Who would be a teacher? Review of factors motivating, demotivating and practicing teachers,* London foundation for education research.

Squires, G. (2002). *Managing your learning",* U.S.A: Routledge.

Stanley, C. A. (2004). Faculty professional development for the 21st century. In *Higher education: Handbook of theory and research* (pp. 441-480). Springer, Dordrecht.

Stará, J., Chvál, M., & Starý, K. (2017). The role of textbooks in primary education. *E-Pedagogium, 17*(4), 60-69.

Statistics Solutions. (2018). *what is confirmability in qualitative research and how do we establish it?* Retrieved from http://www.statisticssolutions.com/

Stewart, S. (2014). Transforming professional development to professional learning. *Journal of Adult Education, 43*(1), 28-33.

Stoll, L., Bolam, R., McMahon, A., Wallace, M. & Thomas, S. (2006). Professional Learning Communities: A Review of the Literature. *Journal of Educational Change, 7*(4), 221258.

Stoltenberg, C. D. (2005). Enhancing professional competence through developmental approaches to supervision. *American Psychologist, 60*(8), 857.

Taba, H. 1962. *Curriculum Development: Theory and Practice*, New York: Harcourt Brace.

Tam, A. C. F. (2015). The role of a professional learning community in teacher change: A perspective from beliefs and practices. *Teachers and Teaching: Theory and Practice, 21*(1), 22-43.

148

Tamakloe, E. K., Amedahe, F. K. & Atta, E. T. (2005). *Principles and methods of teaching.* Accra, Ghana, Universities Press.

Taro Yamane (1967): Elementry sampling theory. First Edition, Published by Prentice Hall, USA.

Tay, L. Y., Ramachandran, K., Ong, W. L. M., & Towndrow, P. A. (2021). Empowerment through distributed leadership in reconciliating tensions and dilemmas in teacher professional development. *Teacher Development*, *25*(5), 647-668.

Taylor, P. J., Russ-Eft, D. F., & Chan, D. W. L. (2005). A meta-analytic review of behavior modeling training. Journal of Applied Psychology, 90(4), 692–709. https://doi.org/10.1037/0021-9010.90.4.692

Timperley, H., Wilson, H., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration.* Wellington, New Zealand: Ministry of Education.

Trotter, Y.D. (2006). *A*dult learning theories: Impacting professional development programs. *Delta Kappa Gamma Bulletin, 72*(2), 8-13.

UNESCO, (1979), *Educational reforms: Experiences and prospects, 7,* Place de Fontenoy 75700, Paris.

UNESCO. (2007). *Operational definition of basic education framework.* UNESCO.

Unicef. (2000). Defining Quality in Education: A paper presented by UNICEF at the meeting of The International Working Group on Education. *Florence: UNICEF*, *6*.

United Nations Educational, Scientific, and Cultural Organization. (2003). *Gender and education for all: The leap to equality* (p. 416). Paris: UNESCO.

Vegas, E., & Petrow, J. (2007). *Raising student learning in Latin America: The challenge for the 21st century*. World Bank Publications.

Velada, R., Caetano, A., Michel, J. W., Lyons, B. D., & Kavanagh, M. J. (2007). The effects of training design, individual characteristics and work environment on transfer of training. International Journal of Training and Development, 11(4), 282–294.

Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature.* París: International Institute for Educational Planning.

Villegas-Reimers, E. (2003). *Teacher professional development: An international review of literature*. Paris: International Institute for Educational Planning, UNESCO.

Villegas-Reimers, E. (2003). *Teachers professional development: An international review of literature.* Paris: International Institute for Educational Planning. Retrieved on June 20, 2021 from: http://www.unesco.org/iiep.

Walling, B., & Lewis, M. (2000). Development of professional development pre-service teachers: Longitudinal and comparative analysis. Action Teacher Education, 22(2a), 63-67.

Webster, J. & Watson, R. T. (2002). *Analyzing the past to prepare for the future: Writing a literature review.* Retrieved May 7th, 2021, from http://www.misq. Org /misreview /announce.html.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council.

Wenglinsky, H. (2000). How teaching matters: Bringing the classroom back into discussions of teacher quality.

Wheeler, S. (2011). Learning is learning. Retrieved 12 December 2021, from *https://stevewheeler.net/publications/.*

Williams, P. R., Tabernik, A. M., & Krivak, T. (2009). The power of leadership, collaboration, and professional development: The story of the SMART Consortium. *Education and Urban Society*, *41*(4), 437-456.

Wiswall, M. (2013). The dynamics of teacher quality. *Journal of Public Economics*, *100*, 61-78.

Woolforlk A, (2007) Educational psychology (11th ed) McGraw Hill In. Zuber-Skerritt, O. *Professional development in higher education: A theoretical framework for action researc*h. London Kogan Page.

World Bank. (2006) *Zambia education Sector public expenditure review.* Washington: World Bank.

World Bank. (2011). *Rwanda education country status report toward quality enhancement and achievement of universal nine year Basic Education.* Washington D C: Rwanda Ministry of Education.

Yin, R. K. (2009). *Case study research: Design and methods (5th ed.).* Thousand Oaks, CA: Sage Publishing.

Yoon, K., Duncan, T., Lee, S., Scarloss, B., & Shapley, K. (2007). Reviewing the evidence on how teacher professional development affects student achievement. *Regional Educational Laboratory, 33*, 1-55.

APPENDICES

APPENDIX A

QUESTIONNAIRE FOR STUDENTS

UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATIONAL STUDIES

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND

MANAGAEMENT

Dear Respondent,

The researcher is carrying out an academic exercise in association with the Influence of Continuous professional development in Choggu demonstration and Bishop Junior High Schools in the Sagnarigu District. The project is solely on academic usage and your responses would be granted the necessary confidentiality.

Thank You.

Instructions: Please tick [ ] as appropriate, but provide answers where needed.

1. Name of School …………….….………………………………
2. Gender………...…. Age………………. Form……………………….
3. Are you able to come to school on time? Yes [ ]   No [ ]
4. How often does the head teacher visit your classroom within a week?

   Once [ ]   Twice [ ]   Thrice [ ]   At least four times [ ]
5. Does the head teacher come to meet teachers teaching you all the time?

   Yes [ ] No [ ] Sometimes [ ]
6. Do all teachers attend classes regularly?   Yes [ ] No [ ] Sometimes [ ]
7. Do you feel that all teachers prepare well before they come to classroom to teach? Yes [ ]   No [ ] Sometimes [ ]
8. Do teachers relate well to you when they come to classroom to teach? Yes [ ] No [ ]
9. How often do you feel comfortable when teachers come to class to teach?

   Always [ ] Sometimes [ ] Hardly [ ]
10. Do teachers facilitate by allowing pupils to participate in the classroom teaching?

    Yes [ ] No [ ] Sometimes [ ]

11. Do teachers allow pupils to participate by asking questions or answer questions during teaching?

    Yes [ ] No [ ] Sometimes [ ]

12. Do pupil disturb whiles teaching is going on? Yes [ ] No [ ]

13. If yes what does the teacher do to those who disturb?

    Nothing is done to them [ ] they are punished [ ]

14. Do you understand what you are being taught by teachers? Yes [ ] No [ ]

15. Do teachers use teaching and learning materials in their teaching? Yes [ ] No [ ]

16. Which of the following do teachers use to teach?

    Textbooks [ ]   Magazine pictures [ ]   Maps [ ] Charts, Graphs and diagrams [ ] Television and computer programmes Drawings on cardboards [ ]   Cassette tapes and music [ ]

17. In how many subject(s) are the materials you mentioned used for teaching?

    (1-3 [ ]   4-6 [ ]   7-9 [ ]

18. How often are you assessed? (a) Every lesson [ ] (b) At least once a week [ ] (C) Once a term[ ]

19. Which of this is used to assess you more often? Class exercise [ ]   Class-test [ ]   Assignment   [   ]   orally   [   ]   End   of   term   exams   [   ]   other (specify)…………………………..

20. Does your classroom organization has any effect on your education? (Example; classroom arrangement, the color, lighting system, chairs and tables, chalkboard.) Yes [ ] No [ ]

21. Are your school structures (buildings, trees, lawns, and compound) conducive for teaching and learning? Yes [ ] No [ ]

22. Do people or animals pass through your school? Yes [ ] No [ ]

23. If yes do people or animal who trespass your school compound distract you whiles teaching and learning is going on? Yes [ ] No [ ]

24. Does the nature of your school building have any effect on your learning? Yes [ ] No [ ]

25. Do you your own textbooks in all the four core subjects? That's English, Mathematics, Integrated Science and Social Studies? Yes [ ] No [ ]

APPENDIX B

QUESTIONNAIRE FOR TEACHERS

UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND
MANAGEMENT

Dear Respondent,

The researcher is carrying out an academic exercise in association with the Influence of Continuous Professional Development in Choggu Demonstration and Bishop Junior High Schools in the Sagnarigu District. The project is solely on academic usage and your responses would be granted the necessary confidentiality.

Thank You.

SECTION A: Background Data of Respondents

1. Name of School …………………………………………………………
2. Sex   Male ( )   Female ( )
3. Academic qualifications [1] Cert. 'A' 4 Yr. [2] Cert. 'A' Post-Sec. [3] Diploma [4] 1st
   Degree [5] Others: (Specify)..
4. How long have you been teaching at the Junior High School?
   1. 1-2 years ( ) 2. 2-5 years ( ) 3. 5-7 years ( ) 4. 7-10 years ( ) 5. More than 10 years ( )

5. What subject(s) did you specialize in? …………………………………………

6. What subject do you teach? ....

SECTION B: Existence of Continuous Professional Development.

The section concerns how teachers perceive the existence of Continuous Professional Development.

Please, rate your perception on the following four-point scale: The scale notation is SA = Strongly Agree: A=Agree: D=Disagree: SD = Strongly Disagree.

	SA	A	D	SD
EXISTENCE OF CPD FOR TEACHERS				
There is availability of CPD programmes at my school				
CPD programmes is patronized by teachers				
Workshops and In-service are made available to teachers				
Workshops and In-service are patronized				
CPD effect specific changes in teachers				
Satisfied with professional development courses organized for teachers				
PERFORMANCE OF TEACHERS (DELIVERY METHODS)				
Different methods used in teaching				
Teaching and learning materials used in lesson delivery				
Using Different TLM's has positive results on academic performance				
Regular assessment to teachers use of TLMs				
Pupils understand lessons better and quickly				
Good results are achieved during examinations				
AWARENESS OF CONTINUING EDUCATION OPPORTUNITIES				
Availability of information about CPD for teaching staff				
Excellent information about new CPD programmes				
There are CPD programmes that are relevant to subject area				
There is relevance of current CPD to area of specialization				
Times offered are not convenient for CPD				
Locations offered are not convenient				
Satisfied with CPD's currently organized for teachers				
EMPLOYER PROVIDED SUPPORT FOR STAFF DEVELOPMENT				
Mechanism in place to supervise staff development activities				
Employer currently provides for CPD activities				
Employer-provision for staff development is satisfactory				
During breaks/vacations is the best times to participate in CPD activities				
FACTORS AFFECTING TEACHERS' PERFORMANCE AFTER CPD				
CPD Programmes do not address teachers' classroom needs				
Training materials are made available for teachers to use				
Reluctance to apply what has been learnt from trainings				
Poor targeting of beneficiaries of training programmes				
Teachers are to be blamed for poor performance of students over time				
Officers for CPD programmes are to be blamed for poor performance				

SECTION C: Please rank your constraints for the factors which affect the teacher's in the implementation of CPD. Mark one choice in each row based on the following variables measurement. 1=Most prioritized, 7=least prioritized.

NO	ITEM	7	6	5	4	3	2	1
1	Personal financial need							
2	Time Management							
3	Insufficient Or No Incentives							
4	Overloaded Classes							
5	Impracticality Of CPD Training							
6	Duration Of CPD Is Not Suitable							
7	Internal Factors Of Teachers Such as Personality, Motivation And Communication							

Please give your opinion on the following specific needs in the implementation of CPD for teachers. Give a mark from 1- 13.

SECTION D: Do you think the following is a specific need for the implementation of CPD for teachers?

NO	specific need	Range
1	Speaking activities	
2	Designing listening activities	
3	Using textbook properly	
4	Classroom management	
5	Preparing reading activities	
6	Designing writing activities	
7	Using technology to teacch	
8	Employing active teaching methods	
9	Preparing students for national exam	
10	Teachers collaboration	
11	Developing research skills	
12	Teaching resources	
13	Absences of transfer of learning from the training programmes	

APPENDIX C

INTERVIEW GUIDE FOR HEAD TEACHERS AND ASSISTANT

HEAD TEACHERS

UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATIONAL STUDIES OF THE DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND MANAGEMENT

Dear Respondent,

The Researcher is carrying out an academic exercise in association with the Influence of Continuous Professional Development in Choggu Demonstration and Bishop Junior High Schools in the Sagnarigu District. The project is solely on academic usage and your responses would be granted the necessary confidentiality.

Thank You.

1. What is the name of your school?

2. What is your Educational level?

3. What is your Highest Academic Qualification?

4. What is your Highest Professional Qualification?

5. How many years have you been a head teacher?

6. What milestone do you want to achieve in relation to CPD of teachers?

7. Do you have any set target so far as pupils' academic performance is concern? What is it

8. Do you have the required teaching staff capacity in your school?

9. Are the teachers punctual to class as expected of them?

10. Are teachers who come late or absent themselves sanctioned?

157

11. What's the percentage of pupils' performance in BECE Exam in the past four years?

12. Do all your staff members possess the required qualification for teaching at the JHS level?

13. What CPD programmes are available to teachers in your school?

14. What are the CPD strategies for teachers towards the performance of students?

15. To what extent do Junior high school teachers have access to information about CPD programmes?

16. Does teachers with high qualification make any impact on students' performance?

17. Does your school organize in service training programmes for your teachers

18. If yes, what is the relationship between the performance of students and teachers CPD?

19. Do you have a professional development committee or any mechanism in place to supervise staff development activities?

20. If yes, what are the duties of the professional development committee?

21. What support does your institution provide for the professional development of your teaching staff?

APPENDIX D

INTRODUCTION LETTER

UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND MANAGEMENT
P. O. Box 25, Winneba, Ghana   deam@uew.edu.gh

UEW/EAM/INT/27

May 28th, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION

We write to introduce **MAXWELL QUAYE**, a student on the M.Phil Educational Administration and Management programme of the Department of Educational Administration and Management.

Maxwell Quaye is currently working on a research project titled:

INFLUENCE OF CONTINUOUS PROFESSIONAL DEVELOPMENT OF TEACHERS ON THE ACADEMIC PERFORMANCE OF STUDENTS. A CASE STUDY OF BISHOP AND CHOGGU DEMONSTRATION JHS SCHOOL IN THE SAGNARIGU DISTRICT.

Please, give him the necessary assistance and co-operation.

Thank you.

Yours sincerely,

Salome O. Essuman (Prof.)
Head of Department

cc: Dean, School of Graduate Studies

www.uew.edu.gh

GHANA EDUCATION SERVICE

In case of reply the number and date
of this letter should be quoted

Ref. No. **GES/NR/SMEO/FA.20**
Your Ref No.: ....

Email: sagnarigumeo2019@gmail.com

REPUBLIC OF GHANA

Municipal Education Office
Post Office Box 377 E/R.
Sagnarigu

GPS: NS-009-7757

Date: 25th October, 2021.

LETTER OF INTRODUCTION
MR. MAXWELL QUAYE

I write introducing to you Mr. Maxwell Quaye. Mr. Quaye is a M.Phil student from the University of Education.

He is carrying out a research on the topic "**influence of continuous professional Development of Teachers on the Academic performance of students**" a case study of Bishops and Choggu Demonstration Junior High School in the Sagnarigu Municipality.

I would be happy if you could accord the researcher all the necessary assistance to have a fruitful research.

Thank you.

MR. ALHASSAN ALIDU JNR.
MUNICIPAL DIRECTOR OF EDUCATION
SAGNARIGU

DISTRIBUTION
THE HEADMASTER
CHOGGU JUNIOR HIGH SCHOOL
SAGNARIGU

THE HEADMASTER
BISHOPS JUNIOR HIGH SCHOOL
SAGNARIGU

Cc: Prof. Salome U. Essuman
U.E.W.
Winneba

sm

160