

UNIVERSITY OF EDUCATION, WINNEBA

**TEACHERS' UNDERSTANDING OF CONTINUOUS PROFESSIONAL
DEVELOPMENT AND ITS RELEVANCE TO THEIR CLASSROOM PRACTICES
IN THE KASSENA/NANKANA WEST DISTRICT**



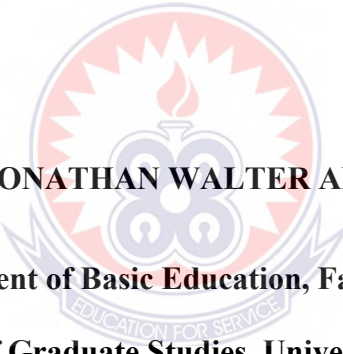
JONATHAN WALTER ADDAH

2015

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The logo of the University of Education, Winneba, is a circular emblem. It features a central sunburst or starburst design in white and red. Below the sunburst is a stylized blue and white symbol that resembles a traditional Ghanaian symbol. The emblem is surrounded by a red border. The text "UNIVERSITY OF EDUCATION, WINNEBA" is written around the top inner edge of the circle, and "EDUCATION FOR SERVICE" is written along the bottom inner edge.

**A thesis in the Department of Basic Education, Faculty of Educational Studies,
submitted to the School of Graduate Studies, University of Education, Winneba, in
partial fulfilment of the requirements for award of the Master of Philosophy (Basic
Education) degree.**

OCTOBER, 2015

DECLARATION

STUDENT'S DECLARATION

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

SIGNATURE:.....

DATE:.....

SUPERVISOR'S DECLARATION

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

NAME OF SUPERVISOR:.....

SIGNATURE:.....

DATE:.....

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DEDICATION

This thesis is dedicated to the fond memories of my late mother, Mrs. Victoria Assibi
Walter Addah.



TABLE OF CONTENTS

CONTENT	PAGE
DECLARATION	i
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xi
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	8
1.3 Purpose of the Study	9
1.4 Research Questions	9
1.5 Hypothesis	10
1.6 Significance of the Study	10
1.7 Limitations of the Study	11
1.8 Delimitations of the Study	12
1.9 Operational Definition of Terms	12
1.10 Organization of the Study	13



CHAPTER TWO	14
LITERATURE REVIEW	14
2.1 Introduction	14
2.2.0 Theoretical Framework	14
2.2.1 Reinforcement Theory	16
2.3 Professional Development/Continuing Professional Development	17
2.4 Historical Background of Teacher Professional Development	21
2.5 Training and Development	24
2.6 Distinction between Professional Development and In-Service Training	25
2.7 Continuous Professional Development Programmes	26
2.8 Professional Development and Teacher Motivation	31
2.9 Benefits of Continuous Professional Development to Teachers	32
2.10 Influence of Teachers CPD on Students' Academic Performance	33
2.11 Reasons and Motivations for Undertaking Professional Development	35
2.12 Planning of Professional Development Activities	35
2.13 Teacher Quality	36
2.14 Effective Teaching	38
2.15 Conceptual framework for Analyses of Professional Development and Classroom Practices	40
2.16 Summary of Literature Review	43

CHAPTER THREE	47
METHODOLOGY	47
3.0 Introduction	47
3.1 Research Design	47
3.2 Population of the Study	49
3.3 Sample Size	49
3.4 Sampling Procedure	50
3.5 Research Instruments	53
3.6 Pre-Testing of Instruments	58
3.7 Data Collection Procedures	62
3.8 Data Analysis Procedures	64
3.9 Ethical Consideration	65
3.10 Brief History/Description of the Study Area	67
CHAPTER FOUR	69
RESULTS, FINDINGS AND DISCUSSIONS	69
4.0 Introduction	69
4.1.0 Presentation of Results	70
4.1.1 Bio Data of Respondents	70
4.1.2 The Main Issues	74



4.1.2.1 Teachers' Understanding of Professional Development/Continuous Professional Development	74
4.1.2.2 Benefits of Continuous Professional Development Programmes to the Teacher	78
4.1.2.3 Teacher Quality and Effective Teaching	80
4.1.2.4 Teacher Quality	81
4.1.2.4.1 Planning and Preparedness	81
4.1.2.4.2 Classroom Management Skills	84
4.1.2.5 Effective Teaching	87
4.2.0 Discussion of Results	91
4.2.1 Teachers' Understanding of the Concept Professional Development/Continuous Professional Development	92
4.2.2 Benefits of Continuous Professional Development Programmes to the Teacher	95
4.2.3 Motivation behind Teachers' Decision to Participate in Continuous Professional Development Programmes	97
4.2.4 Teacher Quality and Effective Teaching	102
4.3 Summary of Chapter	107
CHAPTER FIVE	109
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	109
5.0 Introduction	109
5.1 Summary of Findings	109

5.1.1 Teachers' Understanding of the Concept Professional Development/Continuous Professional Development	109
5.1.2 Benefits of Continuous Professional Development Programmes to the Teacher	110
5.1.3 Motivation behind Teachers' Decision to Participate in Continuous Professional Development Programmes	110
5.1.4 Teacher Quality and Effective Teaching	111
5.2 Conclusions	111
5.3 Recommendations	112
5.4 Suggestions for Further Research	113
REFERENCES	114
APPENDICES	127
APPENDIX A	127
APPENDIX B	132
APPENDIX C	134
APPENDIX D	136
APPENDIX E	137
APPENDIX F	138



LIST OF TABLES

	PAGE
1.1: Performance Trends of Students in BECE from 2008 – 2013	7
3.1: Number of Schools Selected in the Circuits	52
3.2: Number of Teacher Respondents in the Circuits	53
3.3: Reliability Coefficients of Teachers' CPD and Classroom Practices Questionnaire	61
3.4: Reliability Coefficients of Teachers' CPD and Classroom Practices Observation Checklist	61
4.1: Respondents Age, gender, Academic qualification and Professional Status	71
4.2: Respondents Gender, Professional Status and Frequency of Attending CPD Programmes	73
4.3: Teachers' Understanding of Professional Development/Continuous Professional Development	75
4.4: Benefits of Continuous Professional Development Programmes to the Teacher	78
4.5: Planning and Preparedness	83
4.6: Observation of Teachers' Planning and Preparedness	84
4.7: Classroom Management Skills	85
4.8: Observation of Teachers' Classroom Management Skills	86
4.9: Instructional Skills	88
4.10: Observation of Teachers' Classroom Instructional Skills	89
4.11: Assessment Strategies	90
4.12: Observation of Teachers' Classroom Assessment Strategies	91
4.13: Correlations Output between Effective Teaching and Teacher Quality	107

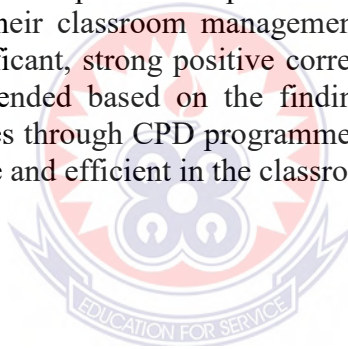
LIST OF FIGURES

	PAGE
1.1: Results of Students in BECE from 2008 to 2013 in KNWD	6
1.2: Performance Trends of Students in BECE from 2008 to 2013 in KNWD	42



ABSTRACT

It is generally acknowledged that promoting teacher quality is a key element in improving primary and secondary education. It is also believed that one critical step to improving students' achievement is by improving teachers' knowledge, skills and disposition. Therefore the study sought to investigate teachers' understanding of continuous professional development (CPD) and its relevance to their classroom practices in the Kassena/Nankana West District (KNWD). Ninety-three (93) teachers out of three hundred and ten (310) teachers were sampled using the quota sampling technique for the study. Questionnaire, interview guide and observation schedule were the instruments used to collect data from respondents. Data collected on the questionnaire and observation schedule were analyzed using the descriptive statistics (frequency counts and percentages) while data collected from the interview were analyzed using the thematic narrative approach. Pearson product-moment correlation was used to determine the relationship between teacher quality and effective teaching. Findings from the study revealed that over ninety percent of basic school teachers in the KNWD understand CPD to mean any planned continuous in-service training offered to teachers to improve teaching and learning. Similarly, basic school teachers reported that professional development programmes were beneficial and relevant to their classroom management the practices. Finally, the study revealed a statistically significant, strong positive correlation between teacher quality and effectiveness. It is recommended based on the findings that teachers should be given enough learning opportunities through CPD programmes so as to broaden their knowledge and also make them effective and efficient in the classroom.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

King & Newman (2001) cited in Steyn (2008:16) said “teachers have the most direct, sustained contact with students, as well as considerable control over what is taught and the climate of learning. It is reasonably assumed that improving teachers’ knowledge, skills and dispositions is one of the most critical steps to improving student achievement”.

Teachers’ continuing professional development (CPD) has become a major focus within the school reform and school improvement literatures because of the belief that student learning and success are due, in large part, to the effectiveness of teachers (Organization for Economic Cooperation and Development-OECD, 2009). The term continuous professional development/professional development has been defined differently by different authorities. Generally, professional development refers to ongoing learning opportunities available to teachers and other education personnel through their schools and districts. The OECD (2009) defined professional development as activities that develop an individual’s skills, knowledge, expertise and other characteristics as a teacher. Continuous professional development is keeping up-to-date with knowledge, skills and attitudes in one’s field of work (Schostak, Davis, Hanson, Schostak, Brown, Driscoll, Starke & Jenkins, 2010). Desimone *et al.* (2002) cited in Opfer & David (2011), assert that professional development is seen as an essential mechanism for enhancing teachers’ content knowledge and improving their classroom practices. If student learning is to be improved, then one pathway for doing so is the provision of more effective professional learning activities for teachers in schools; where these activities result in positive change

for teachers and their pupils (Opfer & David, 2011). For the purpose of this study, continuous professional development/professional development will mean the same and is operationally defined as any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms.

The Anamuah-Mensah's Education Committee Report (2002); a report that reviewed the educational system of Ghana made some recommendations on how to achieve the aims of the free compulsory universal basic education (FCUBE) policy. Acting on the recommendations of the report, (The Anamuah-Mensah's Report) the government recognized the need for the training and development of quality human resource for the implementation and achievement of the recommendations. This paved the way for the transformation of the then certificate 'A' teacher training colleges, into diploma awarding colleges of education in 2004 to up-grade the human resource of the country (Ghana Government White Paper on Education Reform, 2004).

The quality of education depends on the ability, hard work and dedication of the teacher (Rahman, Jumani, Akhter, Chisthi, & Ajmal, 2011). If a teacher fails to keep him/herself in touch with the rapid scientific and educational developments then s/he would become inefficient and ineffective as indicated in the Pakistan National Education Policy (1998), that the teacher is considered the most crucial factor in implementing all instructional reforms at the grassroots level. Commenting on the important roles teachers play in achieving a nation's educational goals, Rahman *et al* (2011) explain that, the academic qualifications, knowledge of the subject matter, competence and skills of teaching and the commitment of the teacher have effective influence on the teaching and learning process. This explains why teachers are expected to be competent in their classrooms. It also

justifies the urgent need for the professional development (PD) of teachers. By emphasizing learning and the development of teachers, schools are able to ensure that learning processes contribute to the attainment of goals and the enhancement of quality and learner performance in schools (Browell, 2000; Cullen, 1999).

Developing countries all over the world today depend heavily on quality human resource for their economic, social and political survival. Ghana as a developing country is no exception. There is no gainsaying that children are the future leaders of this nation. For the children to grow and become responsible adults who will manage the affairs of this nation successfully, they need quality education. Quality education is a key asset for growth and national development. This asset that is urgently needed for national development lies with the expertise and competence of teachers. This implies that, the quality of human resource needed to develop a nation depends on the quality of services offered by teachers; that is, how effective they are in their delivery of classroom lessons. In this regard, Kaff (2004) believes policy makers and education leaders have become convinced that if they are going to make significant improvement in the quality of education, good teachers are critical.

The future of every nation's development depends on the quality of education it provides for its young children. It is also a common saying that children are the future leaders of every nation. For these reasons, the roles of teachers in children's academic achievement and future successes cannot be over emphasized. The Government of Ghana (GoG) having identified education as a key development tool of the nation and aiming to ensure free access to quality basic education has worked tirelessly over the years to achieve these goals. As a result, policies such as the abolition of school fees, introduction of the capitation grant and the school feeding programme came into being (USAID, 2007 cited in

Asante 2011). These interventions by the government yielded positive outcomes as access to basic education in Ghana increased from 78.4% in the 2003/04 academic year to 95.0% in the 2008/09 academic year. Despite the increase in enrolment, it is sad to note that the academic achievement of students in public basic schools is still low (GES Nationwide INSET Programme Newsletter Report, 2012). The same newsletter report attributed the low academic achievement of students to the lack of appropriate and effective teaching skills of teachers. The Preliminary Education Sector Performance Report 2008 (Ministry of Education, Science and Sports: MoESS, 2008) brought to the realization of all that, pupils' proficiency in basic education is critically low, as less than 25% of Ghana's youth reach proficiency levels for primary 6 English and 10% attain proficiency in primary 6 mathematics. An international assessment, Trends in International Mathematics and Science Study (TIMSS) Report 2011, also revealed that 400 (19.5%) students out of 2050 students in grade 4 and grade 8 attained low proficiency in both science and mathematics. From these reports, it appears more still needs to be done to arrest the problem of students' low academic achievement at the basic level. Also, it can be seen that the problem cuts across subjects like Mathematics, English and Science. It is imperative to state that these subjects are considered core subjects in Ghana and they form the basic requirements for admission into second cycle and tertiary institutions in the country. Therefore, scoring low marks in these subjects at the basic level is a worrying concern that should not be swept under the carpet.

In 1999, an evaluation of the World Bank-Supported Primary School Development Project (SPSDP) indicated that teachers were not meeting professional expectations. The study reached the conclusion that the management and utilization of instructional time was a

fundamental problem which undermined the quality of education in public schools. It revealed poor instructional quality as one of the major problems (Fobih et. al., 1999) cited in (Akyeampong, 2003). The teacher is the central figure around whom the success or otherwise of every instructional activities revolves. It is therefore necessary to provide training opportunities for teachers at all times so as to improve their performance in the classroom. Also, several studies (Akeampong, 2003; Caena, 2011; Harris & Sass, 2008; Shriki & Lavy, 2012; Rahman *et al*, 2011; Ridley, 2011; Sharp, 2009; Shulman, 2000; Steyn, 2008) generally acknowledged that promoting teacher quality is a key element in improving primary and secondary education. For these reasons, the Ghana Education Service (GES) has since 2005 developed a framework for the implementation of in-service education and training (INSET) policy for basic education. The aim is to establish an institutionalized structure for CPD of basic school teachers. This move by the GES suggests that the GES places much importance on teachers' CPD and is making efforts to ensure that quality teachers are maintained in the service so as to improve students' academic performance.

However, in spite of these efforts by GoG, the Ministry of Education and the GES to improve teaching and learning in the Ghanaian public basic schools, it appears that these interventions are not yielding positive returns because students' performance in the Basic Education Certificate Examinations (BECE) in most public basic schools in the country continues to decline (see fig. 1).

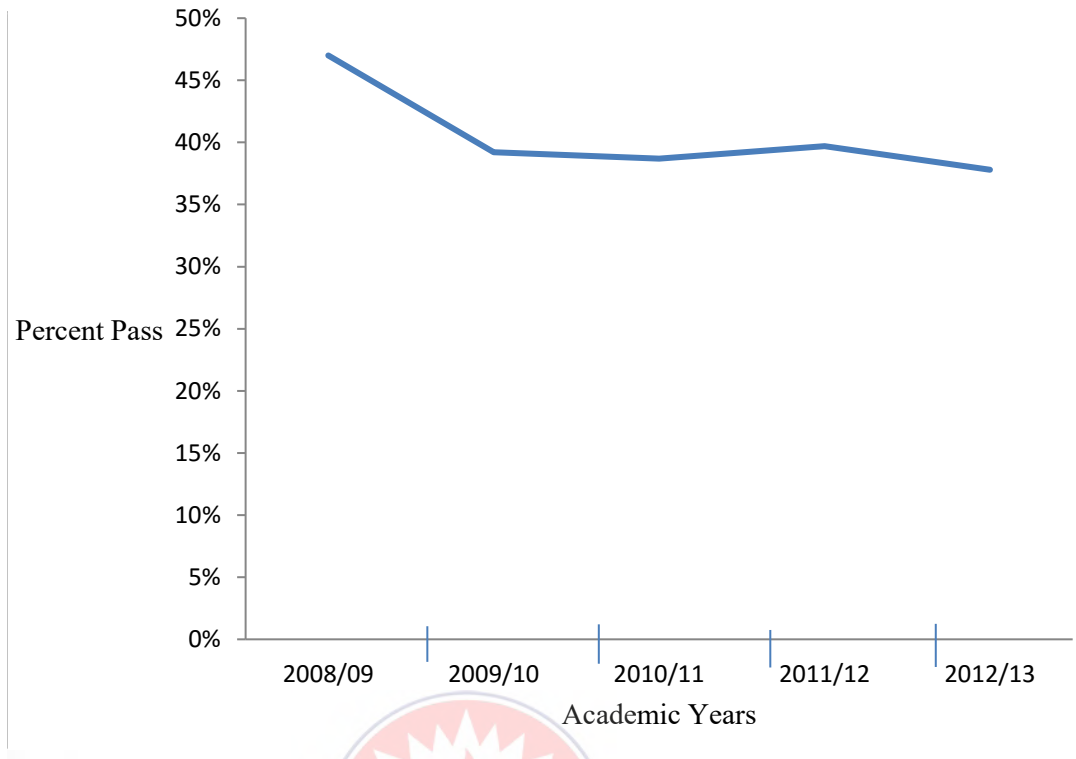


Figure1.1: Results of Students in BECE from 2008 to 2013 in KNWD

Source: District Education Office- Kassena/Nankana West District (KNWD)

Ghana as a lower income nation is leaving no stone unturned to become a middle income nation by 2015, and also to eradicate poverty. To achieve these goals, it is important that the human resource in both the urban and rural areas is properly trained through quality education. It is however imperative to mention that these goals cannot be achieved without keeping good, effective and quality teachers who would constitute a valuable human resource base for such an agenda. Cobbold (2007) is of the view that the government has to recruit an adequate number of well-qualified, highly competent, stable and dedicated teacher workforce in order for it to achieve the aims of educational policies such as the FCUBE for all school going-age children and the model secondary schools policy which focuses on expansion of physical infrastructure and enrollment.

In an attempt to address this issue of poor students' performance in the district, many interventions have been put in place by the GES directorate in the district and the Japan International Cooperation Agency (JICA) to address the pedagogical and content knowledge of teachers. The most current one being the "Project for Strengthening the Capacity of INSET Management (INSET Project II, 2009-13). The interventions that included the School-based INSET (SBI), the Cluster-based INSET (CBI) and workshops were organized to improve the efficiency and competency base of the teachers (GES/KNWD/60/VOL.III). These interventions by the district yielded positive returns as indicated in a Newsletter Report by the GES Nationwide INSET Programme in 2012, that the KNWD is among the first 28 districts in the country whose teachers' performance have improved tremendously over the years due to the implementation of CPD programmes in the district. Ironically, the students in the KNWD continue to perform poorly academically. The table below summaries the academic performance of students in the Basic Education Certificate Examinations (BECE) held in the KNWD from 2008 to 2013 academic years.

Table 1.1: Performance Trends of Students in BECE from 2008 - 2013

Academic Year	No. of Students Registered	No. Passed	Percentage (%) Passed
2008/2009	1311	616	47.0
2009/2010	1268	497	39.2
2010/2011	1609	622	38.7
2011/2012	1650	655	39.7
2012/2013	1694	640	37.8

Source: District Education Office- KNWD

It is against this background that this study was undertaken to investigate into teachers' understanding of continuous professional development programmes and the benefits derived from such programmes. The study is also aimed at exploring the motivation behind teachers' decision to partake in professional development programmes and how this could

be improved for better students' performance in the BECE. The study attempts to find out how teachers' understanding of professional development influences their classroom practices for greater students' achievement in KNWD.

1.2 Statement of the Problem

It is the belief of Darling-Hammond and Young (2002) that the formal preparation of teachers predicts higher student academic achievement. It is however sad to state that in the Kassena/Nankana West District (KNWD) where the study was carried out, newly trained teachers from the universities and colleges of education were being posted to the district every year to augment the existing teacher population of 702, yet the academic performance of students in the district (as indicated in fig. 1.1 and Table 1.1) keeps falling.

The demands of the society keep changing every day. These demands have necessitated changes in the role and function of schools. The turn of events has placed a burden on teachers with regard to what is expected of them. For instance, teachers are asked to teach in increasingly multicultural classrooms; to place greater emphasis on integrating students with special learning needs in their classrooms; to make more effective use of information and communication technologies for teaching; to engage more in planning within evaluative and accountability frameworks (OECD, 2009). While teachers in the KNWD are striving to adapt to the numerous challenges necessitated by societal changes, they have also come under sharp criticism in recent years due to the poor performance of students in BECE in the district. Besides, how teachers' understand professional development will influence the importance they attach to its participation. The importance teachers attach to continuous professional development will influence they teach in the classrooms. How teachers practice and effectively translate what has been learnt during continuous

professional development programmes to reflect in better students' academic achievement is a vital issue that needs to be closely looked at. Also, it is essential that teachers are adequately assisted to plan and prepare when they begin teaching and continue to be provided with opportunities to improve their knowledge and skills throughout their careers, because, no matter how good pre-service training for teachers is, it cannot be expected to prepare teachers for all the challenges they will face throughout their careers (OECD, 2009). It is in the light of this that the researcher undertook this study of teachers' continuous professional development and its influence on their classroom practices.

1.3 Purpose of the Study

The study sought to explore teachers' understanding of continuous professional development and the benefits teachers derive from CPD programmes. The study also examined the relevance of CPD programmes to teachers' classroom management practices in the Kassena/Nankana West District. The study specifically looked at teachers' knowledge of the concepts of PD/CPD and the benefits of CPD programmes/activities to the professional growth of basic school teachers in the district. The study also explored the motivation behind teachers' decision to partake in CPD programmes. Finally, the study examined the relationship between teacher quality and effective teaching.

1.4 Research Questions

The following questions were formulated to guide the study;

1. To what extent does the basic school teacher understand the concept professional development and continuous professional development?

2. What benefits do teachers derive from CPD programmes and how does this reshape their attitudes towards good classroom practices?
3. What is the motivation behind teachers' decision to participate in CPD programmes?
4. Is there any relationship between teacher quality and effective teaching?

1.5 Hypothesis

H₀: There is no significant relationship between teacher quality and effective teaching.

H_A: There is a significant relationship between teacher quality and effective teaching.

1.6 Significance of the Study

The study will be significant in the following ways:

The study would help educational authorities, the public and other stakeholders in the KNWD to appreciate the issues related to PD and CPD and the benefits associated with these concepts to the professional competence and growth of the teacher. Teachers are major stakeholders in the educational sector and their roles in achieving educational goals cannot be underestimated. It is therefore imperative that teachers are abreast with issues concerning their professional growth and competence in the classroom. Hence, the study will inform teachers on the numerous benefits of continuous development and the relevance of these benefits to their classroom management practices. To this end, findings from the study would empower teachers in the KNWD with information on continuous professional development and the need to partake in such programmes to build their capacity. The study would inform the GES, especially, the district training officers (DTOs) in the KNWD in defining what causes teachers to attend CPD programmes and help them

in identifying strategies to help retain this morale of teachers and to encourage them to become valuable contributors in the education sector.

Recommendations of the study will help the government and policy makers to identify and plan appropriate CPD programmes when formulating future policies on teacher competence and professional growth. Finally, the study would serve as a reference material for future researchers who may want to research into similar area of study.

1.7 Limitations of the Study

The study used survey questionnaire, semi-structured interview guide and observation schedule as data collection instruments. These instruments though very helpful in collecting relevant data for the study, are limited in the following ways: Questionnaires for instance usually make little provisions for free expression and sometimes are not very effective in getting causes of problems and possible solutions (Nortey, 2010). Another limitation has to do with the conduct of the interview and observation. Only eight out of 93 teachers agreed to be observed and interviewed. Even with that, the eight teachers were observed and interviewed once. The researcher believed that using the opinions of these eight teachers to generalize for 93 teachers might not be a true reflection of what actually is on the ground. Also, the researcher used his perception to draw meanings into the interview data collected with guidance from his supervisor. This might also lead to some biases in the interpretation of the data thereby affecting the results.

Secondly, the use of the quota sampling approach and the fact that the study was carried out in only one out of the nine districts in the Upper East Region, means that any generalizations of the findings can only be made with caution. However, having accepted

these limitations, the findings or results of the study can still be used to throw more light on some aspects of teachers' CPD programmes in the GES.

1.8 Delimitations of the Study

The study covered teachers' understanding of PD/CPD and the motivation behind their decision to partake in such programmes in the KNWD. The study also touched on the benefits of CPD programmes and how it influences classroom practices. The study was conducted in only one out of the nine districts in the Upper East Region. The quota sampling approach was used to select 93 out of 310 JHS teachers in the district for the study. Again, out of the 42 public JHS in the district, only 14 public JHS were selected for the study.

1.9 Operational Definition of Terms

Professional development/continuous professional development: refers to any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms.

Teacher Quality: refers to a teacher who exhibits good pedagogical skills, has mastery of content, experienced, prepares adequately, has skills in classroom management and is able to raise students' learning outcomes

Effective Teaching: means teaching that encompasses the use of instructional activities such as group discussions, using variety of strategies, questions to promote understanding and gauging students' comprehension through questioning.

Teachers: Both professionally trained and untrained individuals who teach in the basic schools.

Basic Education: This refers to a continuous education comprising two years of kindergarten, six years of primary and three years of junior high school to occupy all Ghanaian children from age four till fifteen.

1.10 Organization of the Study

The whole study is organized in five chapters. Chapter one is the introductory chapter; this entails the background to the study, statement of the problem, purpose of the study, objectives, research questions, hypotheses, significance of the study, delimitations of the study and definition of terms.

Chapter two contains a review of literature relevant to the study. Chapter three describes the methodology and procedures used in the study. This includes a description of the research design, the population, sampling and sample techniques, research instruments, data collection procedures and data analysis plan.

Chapter four contains the results of the study. It presents a detail description of the findings and discussions of the study. Finally, chapter five consists of a summary of findings and conclusions of the entire body of research and includes recommendations, limitations and suggestions for further/future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature with respect to the problem under study. The review covered areas such as professional development/continuous professional development, training and development, distinction between professional development and in-service training, benefits of continuous professional development, reasons and motivations for undertaking professional development programmes. The chapter also took a close look at what constitute teacher quality and effective teaching, influence of continuous professional development on students' academic performance. The chapter closed with a summary of the review.

A literature review summarizes, interprets and critically evaluates existing 'literature' (or published material) in order to establish current knowledge of a subject (McKinney, 2008). According to Dampson and Mensah (2014), the purpose of the literature review is to acquaint the reader with existing studies relative to what has been found, by who, when and where latest research studies were completed and establish possible need for the study and likelihood for obtaining meaningful, relevant and significant results.

2.2.0 Theoretical Framework

In order for teachers to be abreast with modern changes, they need to be provided with opportunities to learn and build upon their knowledge and skills. B. F. Skinner's reinforcement theory; the concept of continuous professional development; teacher quality

and effective teaching will be used as justifications for the need for adults (teachers) learning.

In the world today, we are all confronted with the changes that occur every day and the need to adjust as individuals to cope with these changes. This requires learning to adapt to these changes. Sharing similar opinion Galbraith and Fouch (2007) believe that learning is required throughout one's life in order to adapt to life's circumstances and the environment. Teachers as individuals and professionals are not left out in this quest. Two and half decades ago, computers and technology were not popular among individuals in the world and workplaces but in the 21st century, computers and technology are the order of the day. These speedy shifts and change in the way things are done have forced organizations, institutions and businesses to demand more from their employees in terms of performance. The GES as an organization and teachers as employees are not left out in this global challenge and are putting measures in place to catch up with the world.

The continuous change in what employees need to know and be able to handle any change in the workplace, suggests that learning, education and training will occur over the length of a career and, in fact, a lifetime as opined by Galbraith and Fouch (2007). For this reason, adults have had to become life-long learners by consistently challenging themselves to pursue learning opportunities and other customized learning experiences. These working adults are interested in enhancing their job skills, competence and adjusting for new positions and careers.

2.2.1 Reinforcement Theory

This theory was developed by the behaviourist school of psychology, notably by B.F. Skinner (Burns 1995; Laird 1985). Skinner believed that behaviour is a function of its consequences. The learner will repeat the desired behaviour if positive reinforcement (a pleasant consequence) follows the behaviour. An undesired behaviour will not be repeated if negative reinforcement (unpleasant consequences) follows the behaviour (Casas, 2002). According to Dunn (2002), positive reinforcement or rewards can include verbal reinforcement such as ‘That’s great’ or ‘You’re certainly on the right track’ through to more tangible rewards such as a certificate at the end of the course or promotion to a higher level in an organization. He further explained that punishment, on the other hand, weakens a behaviour because a negative condition is introduced or experienced as a consequence of the behaviour and teaches the individual not to repeat the behaviour which was negatively reinforced. By this theory, the ramifications are that; firstly, people behave the way they do because of either a positive or negative reinforcement. Secondly, peoples’ behaviour is tuned towards a desired behaviour when there is a pleasant experience. This means that as teachers are expected to step their effort to providing students quality teaching and learning to boost students’ academic achievement, they also need to be provided with learning opportunities (positive reinforcements) that would enhance their knowledge and skills to meet up with this demand. Casas (2002) made an elaboration of Skinner’s ideology which I share that people do not act because they believe that their behaviour will produce a desired goal, but they act because they have been reinforced for behaving in a certain manner. I believe teachers teach the way they do because of the initial training they had at their training institutions. This training cannot be expected to meet all the challenges they will

face throughout their teaching profession (OECD, 2009). Teachers need to be provided with additional training to keep them abreast with current trends in the teaching and learning career. To shape the instructional practices of teachers towards improved students' academic achievement, they need to be supported to achieve this. It is the opinion of Faryadi (2007) that in order for teachers to cure the global challenge with respect to students' academic achievement, teachers' behaviour has to be changed. One of the ways of changing teachers' behaviour to remedy the global challenge referred to by Faryadi (2007) is through the provision of positive reinforcement in the form of professional development training to teachers which will increase their competency and efficiency on the job. Another way is the appreciation of teachers in the form of certifications or promotions after they have gone through a continuous professional development programme or completed a professional training to enhance their competence, this will steer up their interest in such programmes or trainings thereby shaping their classroom instructional practices that will produce the desired students' academic achievements.

2.3 Professional Development/Continuing Professional Development

Staff development in education has come to be viewed as indispensable if the goals of the organization are to be realized and the expected demands of the employees are to be met. A study conducted by Bathurst (2007) revealed that giving people the opportunity for growth and career development is the single largest factor driving job satisfaction at the work place. It is therefore not surprising that so many organizations including the GES are providing opportunities for their staff to develop and improve their efficiency so as to become more productive in the organization. Teachers' knowledge of professional development, practices and attitudes are important for understanding and improving

educational processes (OECD, 2009). Elaborating on this statement, the OECD explained that these issues are closely linked to teachers' strategies for coping with challenges in their daily professional life and to their general well-being, and they shape students' learning environment and influence student motivation and achievement. This means that teachers' understanding of professional development has a link to how they practice and the kind of teaching strategies they adopt is dependent on this as well. Also, the kind of attitude teachers, show towards professional development programmes is tied to their understanding of the concept. Professional development of teachers brings about self-efficacy (Short, 1994) which leads to higher students' academic achievement and overall job satisfaction (OECD, 2009).

According to Glathorn (1995), as cited in Villegas-Reimers (2003), teacher professional development (PD) is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically. Continuous Professional Development (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 (Gray, 2005) as cited in (Desta, Chalchisa & Lemma, 2013). Out of the numerous definitions given to CPD, Day's (1999) definition captures all the elements and is increasingly appreciated by many stakeholders. Day (1999) describes professional development as:

Professional development 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. It is the process by which, alone and with others, teachers review, renew

and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues through each phase of their teaching lives (Day, 1999:4).

Like Day, Earley and Bubb (2004) highlighted on the importance of developing the person of the teacher and also touched on the formal and informal components that are incorporated in CPD programmes. They believed that broadly speaking, continuing professional development encompasses all formal and informal learning that enables individuals to improve their own practice and personal development. It is their assertion that personal development is an aspect of professional development and that wherever possible, improving practice and personal development should interact and complement each other (Earley & Bubb, 2004:4).

Explaining the formal and informal components of CPD, (Nortey, 2010) citing Granser (2000) says that teacher professional development includes formal experiences (such as attending workshops and professional meetings, mentoring and others) and informal experiences (such as reading professional publications, watching television documentaries related to an academic discipline among others). This conception of professional development is, therefore, broader than career development, which is defined as “the growth that occurs as the teacher moves through the professional career cycle” and broader than staff development, which is “the provision of organized in-service programme designed to foster the growth of groups of teachers; it is only one of the systematic interventions that can be used for teacher development” (Glatthorn 1995) as cited in (Nortey, 2010:12). Professional development deepens teacher knowledge and improves

skills of teaching. To the lay person, professional development exposes teachers to specific theories, methodologies and approaches to help students in the process of teaching and learning. Professional development focuses on developing and orienting the teacher towards improving the academic performance of students in classrooms and schools (Nortey, 2010). Generally, professional development refers to an organizational response to development needs of both individuals and organizations. It may also be referred to as any form of continuous training offered to a professional, in this case a teacher to improve lessons delivery for effective and quality teaching and learning. Professional development can also be skills required for maintaining a specified path or to general skills offered through continuing education, including the more general skills area of personal development. It can be seen as training to keep current with changing technology and practices in a profession or in the concept of lifelong learning. Developing and implementing a programme of professional development is often a function of human resources or organizational development department of a large corporation or institution. According to Nortey (2010), in a broad sense, professional development may include formal types of vocational education, typically post-secondary or polytechnic training leading to qualification or credential required to get or retain employment. Formal to individualized programmes of professional development may also include the concept of personal coaching. Also, Glatthorn (1995) as cited in Nortey (2010) views professional development as the development of a person in his/her professional role. More specifically, teacher development is the professional growth a teacher achieves as a result of gaining increased experiences and examining his/her teaching systematically. Professional development of teachers is broadly defined as a continuous education for educators.

Generally, all activities, strategies both formal and informal that are planned and organized for the development of the teacher's competence and improvement of his/her teaching performance fall under the umbrella of CPD.

In this context, CPD is any continuous training that is given to teachers on the job to increase their competency and improve their efficiency in the classroom. Also, one will not be far from right if they described PD as the education, training activities, or any planned programme of learning opportunities afforded staff members of an organization and intended mainly to improve their performance, knowledge and efficiency in already assigned or existing positions.

2.4 Historical Background of Teacher Professional Development

During the latter part of the 20th Century, the focus on educational development was on teacher certification. Emphasis on teacher performance depended on qualitative education or certification. In this light, teachers were required to obtain relevant standard certificates before they were recruited to teach in the formal system of education (Nortey, 2010). Though school certificates are still important requirements for recruiting teachers, the classroom teacher is also expected to go beyond what the certificate provides. It is required that the teacher should be able to solve problems that lie beyond the reach of his/her certificate. This is in regards to solving real problems as they occur in the course of performing their duties and also, be able to face and solve any challenge that may present itself on the field. That is to say that certification is necessary but not sufficient enough to improve the quality of teaching/learning in this present world. This appears to be the reason some teachers are unable of handling problems that are beyond typical classroom problem.

After the middle of the 20th Century, specifically after the two World Wars, in-service training for teachers who were already in the service became the focus of improving education. Teachers were offered training on specific needs of students as they arose during their school years. Subject specialization also became a norm and a practice for improving students' achievements. The subject concerned depended on the needs of the country and the school in which the teacher was posted to teach (Nortey, 2010).

In the 1950s, there were training programmes for 'pupil teachers' and also in the 1980s, when most teachers left the shores of Ghana to neighbouring Nigeria for greener pastures, it became relevant and necessary for GoG, through the Ministry of Education, to employ school leavers (especially brilliant ones who had no jobs) to teach in the public schools. These people were called "pupil teachers". Most of these pupil teachers were given in-service training and were sent to teach in the rural areas where staff shortage was severe (Owusu-Mensah, 2006). Today, teacher professional development has taken on many forms. It seems that the focus of teacher professional development training now goes beyond training for teaching to include methods aimed at facilitating teachers' self-efficacy, cognitive development, and career development and improvement in school ethos (Nortey, 2010).

The Quality Professional Development Project (1995) outlined ways toward making professional development plans a more purposeful part of the overall improvement of education for students. The purposes of the project when it began in 1995 were to: (1) determine guidelines for the best practices that will assist educators in improving the design and the delivery of professional development opportunities and (2) provide a

reflective discussion of how barriers to effective professional development can be overcome. It was the intent of the systematic application of the guidelines that the reflection process would: (1) help educators build a cycle of ongoing professional development into the overall process of education improvement and (2) increase the effectiveness of professional development's impact on student success in a positive and measurable way (as cited in Nortey, 2010). This project has opened opportunities for best practices regarding the design and implementation of continuous professional development programmes in the country and has also added more value to the discourse on professional development issues nationwide.

Professional development embraces almost anything that is deemed relevant to improve the skills of the classroom teacher in order to facilitate and improve his/her performance. According to Tanner and Tanner (1987), teachers' professional development is significant mainly for two reasons. Firstly, knowledge is evolving continually. Some new things come out each day which the teacher needs to refresh his/her mind for the challenges it brings. Since not everything can be taught during the teachers training in college, there is the need for the teacher to undergo some form of on-the-job training to be abreast of time. Secondly, the authors purport that principles and practices of teaching were more involving than what the teacher receives during the pre-service preparatory phase in college. The real challenges of teaching are in the classroom, where the new teacher requires understanding to overturn the challenge.

2.5 Training and Development

Various definitions with varying degrees of emphasis have been given to the concepts of training and development by many authorities. According to Garavan (1997) training is a planned and systematic effort to modify or develop knowledge, skills, attitudes and abilities through learning experiences to achieve effective performance in an activity or range of activities. Davis and Davis (1998) define training as the process through which skills are developed, information given and attitude nurtured so as to aid individuals to become more efficient in their work. Ivancevich (1998) sees training as the planned and systematic modification of behaviour through learning events.

On the other hand, Hopkins (1995) defined development as a philosophy that involves professional skills. Mullins (1996) cited in Nortey (2010) sees employee development as a product of knowledge and varied experience. He argues that development is achieved through a combination of both theoretical and practical involvement. Development is a learning experience leading to the acquisition of enhanced knowledge, skills, values or behaviour (Dixon, 1994). Dean, Mark and Del-Parte (2000) think development contributes to organizational effectiveness. If people who work for an organization are better developed and prepared to do their jobs, the organization becomes more efficient and effective in service delivery. Development can also be described as the process of upgrading oneself to meet new and challenging demands in the society or organization.

Training and development as concepts differ in so many ways. For instance, Marchington and Wilkinson, (2002) cited in Nortey (2010), assert that the outcome of training may be immediate, while the outcome of development unfolds through time, rather than

immediately, and tends to be long-lasting. According to Martin and Jackson (2002), development lays emphasis on the growth of the individual. Management of people, handling work relationships and leadership are typical of broad ranges of skills that are developed. They argue that there is no fixed end point to development because individuals can continually improve, for instance, their leadership skills. Mayo (2004) concluded that the essence of people development (whether managed by individuals themselves or with the help of others) is to provide and benefit from opportunities, and that most of these will be new experiences. Training is however similar to development in the following way; training and development can be thought of as processes designed to enhance the professional knowledge, skills and attitudes of educators so that they might, in turn, improve the learning of students (Rahman *et al*, 2011).

2.6 Distinction between Professional Development and In-Service Training

The two concepts professional development (PD) and In-service training (INSET) are often used interchangeably to mean the same. But the two are distinct in the following ways; Granser (2000) as cited in Villegas-Reimers (2003) is of the view that professional development includes formal experiences (such as attending workshops and professional meetings, mentoring, etc.) and informal experiences (such as reading professional publications, watching television documentaries related to an academic discipline, etc.). In contrast, Good (1973) defined INSET as efforts to promote by appropriate means, the professional growth and development of workers. Also INSET of teachers improves teachers' knowledge and intensifies their initial training. Smith (1969) is also of the view that initial teacher training should be followed by in-service training. He further states that teachers need continuing education and the aim of such programmes is to; (i) remedy the

teachers' deficiencies arising out of defects in his/her initial teacher-training preparation, (ii) advance the teachers' skills and the pedagogical knowledge required for new roles and (iii) advance and update the teachers' knowledge of the subject matter. While PD is continuous development, INSET typically assumes a deficiency in the employee and tries to remedy such deficiencies as and when the need arise. In a similar vein, Bolam (1993) distinction between professional training, professional education and professional support is beneficial as it provides a useful analytical framework that can be applied to studies such as this. In his explanation, Bolam (1993) described professional training as one that provides teachers with specific strategies in teaching specific subjects, managerial and peripheral training. For example, training in how to handle children with special needs and also manage their roles in the classrooms. Training that takes a little longer period and examines educational practice and considers educational beliefs and values falls under professional education. Examples include taking a diploma or degree courses. Finally, he stated that the formal and informal support teachers get from colleagues at the workplace all come under professional support. Ridley (2011) is of the view that Bolam's (1993) descriptions permit the codification of the range of continuous professional development activity that is available to teachers. From the above it could be deduced that professional development include formal and informal training that teachers receive to increase their competence in the classroom.

2.7 Continuous Professional Development Programmes

The quality of education depends on the ability, hard work and dedication of the teacher. If a teacher fails to keep him/herself in touch with the rapid scientific and educational developments, then s/he would become inefficient and ineffective. Teachers are a nation's

great assets. It is the quality of teachers on which the population of a country mainly depends for excellence. Teachers' credibility depends on how they take up the rights and responsibilities, which are associated with the position (Rahman *et al*, 2011:150).

The roles and responsibilities of the teacher towards nation building and development are enormous as described above. For these reasons, teacher training programmes and CPD programmes need to be critically looked as they influence to a large extent the quality of teachers produced. In this vain, Rahman *et al* (2011) are of the view that the academic qualifications, knowledge of the subject matter, competence and skills of teaching and the commitment of the teacher have effective influence on the teaching/learning process. In a similar sentiment, a Commission on National Education of Islamabad (1959) report as cited in Rahman *et al* (2011:150) states that “we say it with force and without reservation that none of the reforms we are proposing will succeed unless we are able to recruit to the teaching profession at all levels men and woman of the highest abilities, and can train them”. The above discussions revealed that training of teachers is key and critical if a nation intends to meet both short and long terms educational goals.

Training is an important part of teacher preparation programmes, especially for those aspects of teaching that are more skill-like in their conception, but there are many other important aspects of teaching that can only be nurtured through reflective strategies and experiences. Training teachers is more likely to lead to diversity in practice at all levels of instruction (Rahman *et al*, 2011). According to Asu (2004) there are several outcome areas that are potentially affected by teacher training programme. These include: Teacher knowledge, Teacher attitudes and beliefs, Teaching practice, School-level practice and

Student achievement. Purpose of training is to generate the conditions that enable the practice to be selected and used appropriately. There are many critical elements in teacher training that should be given due attention. Hoffman and Pearson (2004) cited in Rahman *et al* (2011) have summarized the following critical elements of teacher training: to them, trained teachers should; establish clear performance goals and communicate them to learners. They should determine learners' present skill level, and ensure that learners are aware of the requisite skill level of mastery. Build upon learners' present skill level during early learning stages. Ensure a basic understanding of the skill to be learned, and when and why it is used and finally, to provide for transfer of training and provide full support and reinforcement for the use of skills in natural settings.

Training of teachers provides them the knowledge, skill, and ability that are relevant to the professional life of a teacher. Teacher training moulds the personality of a teacher such that their attitudes are reshaped, their habits are reformed and their personality is reconstituted through teachers training. Rahman *et al* (2011) identified pre-service and in-service trainings as teacher professional development programmes. Similarly, teacher professional development programmes identified by the OECD (2009) include; course and workshops, education conference and seminars, qualification programmes, professional development network, individual and collaborative research, mentoring and peer observations.

2.7.1 Pre-Service Training

It is the training provided before employment of teachers and is generally a pre requisite for employment. Pre-service training is aimed at professional growth of the teacher and is planned and provided in such a way that it leads to the development in him/her a positive

attitude towards education and towards improving his/her own performance in terms of better student learning. In Ghana, the Colleges of Education are responsible for the production of teachers for the basic schools. Universities such the University of Education, Winneba (UEW), the University of Cape Coast (UCC) and the University for Development Studies (UDS) also do produce teachers for the nation.

In these teacher training institutions, one could graduate with a Certificate in Education, Diploma in Basic Education (DBE), Bachelors' of Education Degree (B. Ed), Masters' in Education Degree (M.ED), Master of Philosophy (M Phil), Doctor of Education Degree (Ed. D) and Doctor of Philosophy (PhD). Other private institutions and universities are also involved in providing these training to teachers. Pre-service training is an essential prerequisite for teaching in primary, junior, and senior high schools of the country.

2.7.2 In-Service Training (INSET)

It is an ongoing process that goes on continuously throughout the educational life of a teacher. As one does not finish learning with graduation, likewise the teacher's training goes on improving with the passage of time by gaining experience and study through-out the life span of a teacher. It is a means to achieve educational change that will persist. In-Service Education and Training (INSET) refers to all those activities that contribute to professional growth and qualifications of an employee, e.g. reading educational journals, participating in workshops, seminars, conferences and visits to educational institutions that give the employee a sense of security and a feeling of self-confidence while discharging his/her routine duties in the school. It is a continuing education of teachers and other educational workers leading to the improvement of their professional competence. With the rapid increase in human knowledge, new approaches, new methods of teaching and new

avenues for the teachers are being introduced. If a teacher fails to keep him/herself in touch with these developments s/he is proving him/herself as inefficient and ineffective. In order to achieve this end, it is necessary that great deal of many opportunities of in-service education should be provided for teachers.

Different techniques of In-service training as indicated in a report by Government of New Zealand (2000) included: refresher courses, workshops, seminars, conferences, correspondence courses, demonstrations, study circle, field trips, and project group. Aside these CPD programmes that promote teacher efficacy and efficiency, Mcber (2000) cited in Rahman *et al* (2011) believes that teaching skills, professional characteristics and classroom climate are the three main factors within teachers' control that significantly influence student progress. Mcber described teaching skills as those behaviors that the effective teacher constantly exhibits when teaching a class. Involving pupils in lessons; using a variety of activities or learning methods; applying appropriate teaching methods and using a variety of questioning techniques to probe students' knowledge and understanding all form part of teaching skills. Professional characteristics refer to teachers' personality, character, qualification, training, knowledge and skills. Qualifications and training alone do not make a good teacher. Personality, character and commitment are as important as the specific knowledge and skills that are used in the daily tasks of teaching. Classroom climate measures the collective perceptions of students regarding the dimensions of the classroom environment that have a direct impact on their capacity and motivation to learn. These characteristics are relevant to shaping the instructional competence of the teacher.

2.8 Professional Development and Teacher Motivation

Motivation, according to Wikipedia Report (2014), is a reason (or set of reasons) for engaging in a particular behaviour, especially human behaviours. The underlying causes of this motivation may include the basic needs of humans, for example, food, water, clothing and shelter (Maslow, 1954) or an object, goal, state of being or idea that is desirable (Locke, 1968) cited in (Bennell & Ackeampong, 2007), which may or may not be viewed as 'positive' such as seeking a state of being in which pain is absent. Rosenholtz (1989) stated that for the academic performance and professional development of teachers to improve, teachers must be provided with the needed support. This is particularly so because teachers, by their nature, desire for new challenges, they want to learn, develop better skills and obtain greater knowledge about their practice.

This suggests that if teachers are given the necessary support, they will be encouraged to participate in CPD programmes. Also, if teachers see a reason to believe that the benefits they are going to get at the end of the programme are enormous then, they will be enthused to participate in it. Guskey (2002) shared a similar view in one of his works saying, what attracts teachers to PD, therefore, is their belief that it will expand their knowledge and skills, contribute to their growth, and enhance their effectiveness with students. But teachers also tend to be quite pragmatic. What they hope to gain through PD are specific, concrete and practical ideas that directly relate to the day-to-day operation of their classrooms (Fullan & Miles, 1992). Development programmes that fail to address these needs are unlikely to succeed and might not get the support of teachers. To this end teachers should be included in the CPD programmes planning process. This will offer the

chance to state areas where they are finding problematic to be included in CPD programmes.

2.9 Benefits of Continuous Professional Development to Teachers

A study conducted by Sharp (2009) identified that when teachers are given the opportunity to develop while on the job, they become empowered to take major decisions, solve problems on their own and face situations as they come. This empowerment that Sharp talked of is very important as it gives the teacher the feeling of independence. Teachers work effectively and efficiently when they have the feelings that they are their own 'boss'. Keiser and Shen (2000:119) stated, "The benefits of teacher empowerment includes increased teacher job performance, productivity, improved teacher morale, increased teacher knowledge of subject matter and pedagogy, and in the end, higher student motivation and achievement". Self-efficacy is what Short (1994) found out in his study. According to him, teachers gain self-efficacy beliefs through continuous professional development which give them the confidence in whatever they are doing. Short (1994) described self-efficacy as a form of empowerment, in which teachers perceive they have the competence to enhance student learning, possess the ability to build and sustain meaningful and effective programmes to assist students, and have the power to be agents of change in reference to student achievement. Tucker and Stronge (2005:6) are of the view that "a highly qualified teacher is a good starting point, but most of us would want our child to have a highly effective teacher whose teaching effort yields high rates of student learning".

2.10 Influence of Teachers CPD on Students' Academic Performance

Several scholars and organizations have conducted studies to determine the influence of teachers' CPD on students' academic achievement. One of such organizations is the Voluntary Services Overseas (VSO). In one of their studies that looked at teacher quality and students, academic performance, the VSO found out that "in all education systems, the performance of teachers is one of the handful of factors determining school effectiveness and learning outcomes for teachers' interaction with learners is the axis on which educational quality turns" (VSO, 2002:10). This implies that teachers' interaction with students in the classroom is very necessary for students' academic achievement. For teachers to be able to do this effectively, they need a firm grip of the pedagogical skills and content knowledge in their field. The result of another study conducted by Akinfe *et al* (2012) confirmed that though the teacher as a person is not the sole determinant of students' academic outcome because other factors such as socio-economic status, parental education, school environment, related factors etc have significant effects in the academic performance of students, however, the quality of teachers to a large extent determine students achievement because a professional teacher will make the best of every unpleasant situation in the classroom and school environment to maximize students learning. It has been claimed in the literature on CPD that 'well-structured CPD can lead to successful changes in teachers' practice, school improvement and improvements in pupils' achievement' (Bolam and Weindling 2006:113).

Guskey (2002) believes that PD of teachers will lead to change in teachers' classroom practices which will in turn lead to change in student learning outcome which will finally result in change in teachers' beliefs and attitudes. To Guskey, the key element in significant

change in teachers' attitudes and beliefs is clear evidence of improvement in the learning outcomes of their students (Guskey, 1989). All the above research findings are evidence that teacher quality and performance determine to a large extent students' academic performance.

However, there are those who think otherwise. For instance Jacob & Lefgren (2004) cited in Rahman *et al* (2011) found out that marginal increases in-service training have no statistically or academically significant effect on either reading or math achievement, suggesting that modest investments in staff development may not be sufficient to increase the achievement of elementary school children in high poverty schools. Another study conducted by Harris & Sass (2006) cited in (Rahman *et al*, 2011) who studied the effects of various types of education and training on the ability of teachers to promote student achievement, found out that there is no evidence that either pre-service (undergraduate) training or the scholastic aptitude of teachers influences their ability to increase student achievement. In the last six years, about eight studies of teacher productivity in the U.S. have been conducted. Results of one study on elementary mathematics are about evenly split between positive and insignificant effects of teacher experience on student achievement. In contrast, all but one of the eight recent studies that separately analyze elementary reading found that student achievement is positively correlated with teacher experience (Rahman *et al*, 2011).

From the foregoing arguments, it appears that, there is still some work to be done in the area of teacher quality, competence, performance, and students' academic performance because no conclusive agreement have been reached by scholars working in this field.

2.11 Reasons and Motivations for Undertaking Professional Development

Data gathered by Hustler, McNamara, Janis, Londra, and Campbell, (2001) revealed that, teachers participate in PD programmes due to school development plan first and national priorities second. The third and fourth reasons; personal interests and performance management outcomes respectively, display a wide distribution. The variation is illustrated by the finding that although for a large number of teachers (28%) this emerged as their most likely reasons, for an almost identical proportion of teachers (29%) which was their least likely reasons. Hustler *et al* concluded that this distribution can be taken as an indication of strong feelings about the issue. Teachers under the age of 25 years and newly qualified teachers felt most able to participate in CPD for their personal interests and also felt the least influenced by national priorities.

2.12 Planning of Professional Development Activities

Another significant study on teacher CPD is one conducted in Alberta, Canada by Arden (2001). According to his findings, planning for, and participation in, effective CPD activities can take many forms as teachers seek new ideas as they strive to grow as professional educators and make the classroom experiences of young people in the Province of Alberta meaningful, productive, and rewarding. Based on the findings in this study, there is no doubt professional development activities must be based in the classroom with the curriculum as the focal point for PD activities. Teachers interviewed during the course of this study varied in their approaches to developing their PD plans but were consistent in their beliefs about the absolute necessity for meaningful PD activities to be supported by the school and the school district. Respondents in this study agreed students should be the first consideration when developing teacher professional growth plans or

engaging in PD activities during the course of a school year. Teachers and administrators need to take into consideration the variable needs of students and teachers as well as how classroom practices might evolve during the course of PD activities (Nortey, 2010).

Teacher Professional Growth (TPG) plans and subsequently PD activities must also be based in curriculum and curricular change as teachers strive to promote and provide meaningful learning experiences for students. Support from the school and the district level was also viewed as an essential component for teachers engaged in professional development activities. Administrators at all levels can provide support to teachers in many ways including, allocation of money and other resources in school and district budgets geared toward individual and collective PD activities. Teaching is seen as a natural skill that can be enhanced and refined with effective PD activities. Teachers interested in growth and development are in the best position to determine and prioritize their own professional development needs.

Arden's study also revealed that respondents agreed about the absolute necessity for CPD to be integrated within the framework of teacher practice and school operation. Ongoing PD activities were seen as a way to integrate technology, implement curricular changes, and improve classroom instruction. There was disagreement among teachers regarding the necessity of writing and submitting a professional growth plan for review. Professional development activities undertaken as part of team oriented activities were those cited by individuals as being most beneficial.

2.13 Teacher Quality

The task of a teacher is closely tied to the nature of the classroom. Today's classrooms call for teachers to prepare virtually all students for higher order thinking and performance

skills (Darling-Hammond, 2006). According to Dimmock (2010), researchers and practitioners are becoming increasingly aware that the character of the 21st Century classroom and thus the demands on both students and teachers is undergoing significant change. These challenges are not peculiar to any specific continent or country but cuts across the globe. To be able to overcome these global challenges, we need quality and competent teachers in our classrooms.

The quality of instruction is fundamental to student learning (OECD, 2009). Wang, Haertel and Warburg (1993) cited in OECD (2009) believe that classroom management and classroom interactions had similar effects in size to students' cognitive competencies and their home environment. Teacher quality is vital in the promotion of higher students' academic achievement. It is common knowledge that students' low academic achievement is a global challenge. To overcome this challenge Paige (2002) believes that qualified, talented and dedicated teachers are needed. Bush cited Paige (2002) opined that the responsibility of shaping the minds and hopes of children rest on the shoulders of quality teachers. This implies that quality teachers are not only responsible for academic achievement of students but also the future successes of students as well. Because of the important role that teacher quality play in the total well-being of students, a lot of studies; Adamson and Darling-Hammond (2011); Byrd and Rasberry (2011); Darling-Hammond and Young (2002); Darling-Hammond (2011); Strong (2011); Ball and Hill (2007); Darling-Hammond (2012) have been done to support this assertion. Teacher quality is viewed differently by different scholars. Ball and Hill (2007) believe that teacher quality encompasses holding a degree in a subject from a certified teacher training institution, knowing the subject matter, being culturally responsive, being pedagogically skillful and

producing gains in students' academic achievement. Spradlin and Prendergast (2006) defined teacher quality in terms of teacher characteristics. To them, characteristics such as academic skills and knowledge, mastery of content, experience and pedagogical skills are attributes of teacher quality. According to Strong (2011), the term teacher quality includes academic qualifications of a teacher, personal qualities, pedagogical standards and ability to raise students' learning. By implication, teacher quality describes one who is experienced, knows the subject-matter, is fair, compassionate, establishes positive classroom environment and produces higher students' academic performance.

According to Adamson and Darling-Hammond (2011) teachers' academic background, preparation and experiences significantly affect their students' learning gains. Sharing similar views Peske and Haycock (2006) believe that teacher characteristics such as academic skills and knowledge have the ability to produce gains in students; academic achievement. Giving teachers support in terms continuous professional training will add to their knowledge and prepare them for higher students because unprepared teachers decrease students' achievement (Darling-Hammond, 2011).

2.14 Effective Teaching

According to Riggall (2013), teachers are one of the key elements in any school and effective teaching is one of the key propellers for school improvement. Also Darling-Hammond (2012) is of the view that the impact of good teaching is increasingly cited as a major determinant of the economic wellbeing of a society and its citizens. This suggests that for the economy of a society to improve for its citizens to prosper, we need effective teaching in our schools. Secondly, for the schools to improve leading to increase in

students' academic achievement, we need effective teaching as well. In all these instances, the teacher is seen as the one with the magic wand to turn things around for the better.

Riggall (2013) states that, in defining effective teaching, the focus is on students' learning outcomes; the teacher behaviours and classroom processes that promote better student outcomes. Kristof (2006) cited in Byrd and Rasberry (2011) believes that teachers' effectiveness is determined on how well their students score on standardized achievement tests. This presupposes that effective teaching is one that results in high students' academic achievements. According to Riggall (2013) research evidence suggests that effective teachers are clear about instructional goals, knowledgeable about curriculum content and the strategies for teaching it, communicate to their students what is expected of them, and why, make expert use of existing instructional materials in order to devote more time to practices that enrich and clarify the content, are knowledgeable about their students, adapting instruction to their needs and anticipating misconceptions in their existing knowledge and monitor students' understanding by offering regular appropriate feedback. Also, she added that the skillful use of well-chosen questions to engage and challenge learners, and to consolidate understanding, is an important feature of effective teaching. In a study conducted by Scheerens and Bosker (1997) cited in OECD (2009) concluded that characteristics of effective instruction have a greater effect on student achievement than those of the environment. The characteristics outlined by Riggall (2013) were adapted for measuring effective teaching in this study. In this study, effective teaching means teaching that encompasses the use of instructional activities such as group discussions, using variety of strategies, questions to promote understanding and gauging students' comprehension through questioning.

2.15 Conceptual framework for Analyses of Professional Development and Classroom Practices

The framework explains how providing teachers with learning opportunities shape their attitudes and professional practices leading to higher student learning outcomes and overall self-confidence and job satisfaction. Every teacher comes to the profession with some professional competences (knowledge and experience) based on the initial training he/she gets. These knowledge and experiences include content and pedagogical knowledge. The teacher's content and pedagogical knowledge develops into a set of beliefs and attitudes (beliefs about the nature of teaching and learning) which the teacher brings to the profession. Teachers' belief about teaching and learning more often than not leads to developing bad attitudes regarding how to impart knowledge and how to relate with students in the classroom. In order to reshape teachers' attitude towards good practices, they need to be provided with positive reinforcement in the form of continuous professional development programmes (e.g. in-service trainings, seminars, refresher courses etc...) This will translate into change in beliefs and attitude leading to adoption of modern trends in teaching, improved management skills and positive rapport with students. The change in teachers' attitude as a result of the reinforcement brings about positive teacher classroom practices and professional activities. Teachers' professional activities transform the school which bring about friendly school climate, positive student-teacher relationship and teacher-teacher relationship. Teachers' professional activities and school environment are both affected by the leadership experience of the teachers from their initial training. The teachers' classroom practices enable them to create a positive classroom environment. Teachers' change in attitude with resulted in creating conducive school and

classroom environment bring about student learning which translates into student outcomes. Teachers' professional activities and classroom practices alone cannot wholly be the determinant of student learning and outcomes, other factors such as student background also counts. The net effect of this is the end, students' achieve higher learning outcomes, teachers gain self-confidence and job satisfaction (see figure 2.1).



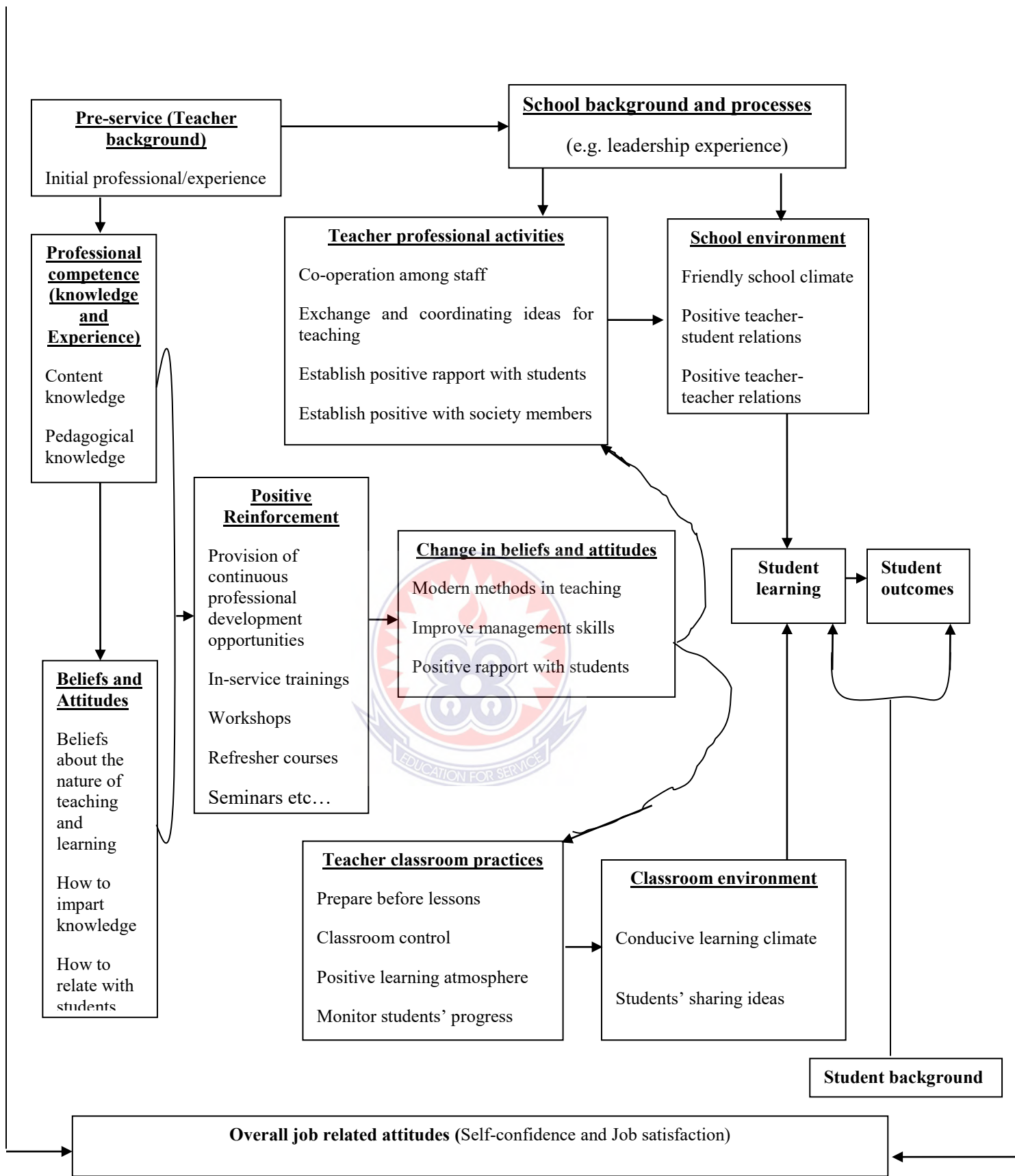


Fig. 2.1 Teachers' Professional Development Framework Adapted from OECD, TALIS Database, 2009

2.16 Summary of Literature Review

The behaviourist theorist behind the reinforcement theory is B. F. Skinner (Burns, 1995; Laird, 1985). The tenets of this theory are that, a desired behaviour will be repeated if positive reinforcement (a pleasant consequence) follows the behaviour; and a behaviour will not be repeated if negative reinforcement (an unpleasant consequence) follows the behaviour. This theory provided support for the need to provide teachers with learning opportunities (positive reinforcement) that will boost their competence and increase their efficiency if we want them to teach in a way that will increase students' academic achievements.

The literature also dealt with issues regarding definitions of PD. Definitions by Day (1999), Glatthorn (1995), as cited in Villegas-Reimers (2003), Earley & Bubb, (2004) and Granser (2000) as cited in Nortey (2010) were considered. Though there were barely noticeable differences in the definitions given on PD by these scholars, they all agree that PD is any continuous training offered to teachers to improve teaching in schools. This conception of professional development given in the definitions is broader than career development, which is defined as “the growth that occurs as the teacher moves through the professional career cycle” and broader than staff development, which is “the provision of organized in-service programme designed to foster the growth of groups of teachers; rather, it is only one of the systematic interventions that can be used for teacher development” (Glatthorn 1995) as cited in (Nortey, 2010:12). The GES is more into promoting and providing teachers with organized in-service programmes than providing chances for teachers with prospects to grow through the academic ladder. This assertion is evident in the limited space and quota available for teachers who want to further their studies in the universities

and also the quantum of teachers that are promoted to management positions like assistant director II and above in GES. Also, teachers as employees of the GES like any other employees need to upgrade their knowledge and skills so as to meet the challenges of the modern classroom. Teachers do not just want to go through the professional cycle, but are enthused by the fact that they will be efficient managers of the classroom.

Literature on training and development from different perspectives and point of views were also reviewed. Scholars such as (Marchington & Wilkinson, 2002; Mullins, 1996) cited in Nortey (2010), Garavan (1997), Davis and Davis (1998), Ivancevich (1998), Hopkins (1995), Dixon (1994) and Dean, Mark and Del-Parte (2000) shared their views and opinions as regards training and development. The two concepts- training and development differ in many ways and forms per the views of the above mentioned scholars. A report by the Government of New Zealand (2000) identified refresher courses; workshops; seminars; conference and correspondence courses are examples of INSET. Mcber (2000) cited in Rahman *et al* (2011) believes that teaching skills, professional characteristics and classroom climate are factors that significantly influence pupils' progress.

The benefits of continuous professional development include increased teacher job performance, productivity, improved teacher morale, increased teacher knowledge of subject matter and pedagogy, and in the end, higher student motivation and achievement (Keiser & Shen, 2000).

Teacher quality and effective teaching concluded the literature review. According to Spradlin and Prendergast (2006) teacher quality characteristics include having good academic skills and knowledgeable, mastery of content, experience and good pedagogical

skills. Riggall (2013) asserts that effective teachers are clear about instructional goals, knowledgeable about curriculum content and the strategies for teaching it, are knowledgeable about their students, adapting instruction to their needs and anticipating misconceptions in their existing knowledge and monitor students' understanding by offering regular appropriate feedback. She also added that the skilful use of well-chosen questions to engage and challenge learners, and to consolidate understanding, is an important feature of effective teaching.

Some empirical works on the influence of teachers CPD on students' academic performance were also reviewed. There was no conclusive agreement among scholars regarding teacher quality and students' academic performance because there are those who believed that teacher quality improve students' academic performance (Bolam & Weindling 2006; Guskey, 2002; Keiser & Shen, 2000; Sharp, 2009). Others also are of the view that students' academic performance does not depend on teacher quality, but other factors do (Jacob & Lefgren, 2004; Harris & Sass, 2006) cited in (Rahman *et al*, 2011). The gap created by this disagreement is what this study sort to fill. To find out whether there is a correlation between teacher quality, competence and performance and students' academic performance. School development plan, national priorities, personal interests and performance management outcomes outlined by Hustler *et al* (2001) account for why teachers partake in CPD programmes. There was a general agreement by teachers about the absolute necessity for CPD to be integrated within the framework of teacher practice in school operation (Arden, 2001).

Concluding the literature review is a conceptual framework based on the literature reviewed for analyses of professional development and classroom practices.

The literature reviewed have revealed how important continuous professional development is towards the professional growth of the teacher in dispensing his/her duties. This implies that when capacity building programmes are promoted regularly in the GES, it will develop teachers' capacity for effective teaching. Secondly, with the fast technological innovations and changing teacher instructional practices, teachers' knowledge in modern strategies to instructional delivery needs constant upgrading for increased productivity. Therefore, a significant association between teachers' professional knowledge and teacher quality is relevant for professional practice.

In this study, the benefits of teacher continuous professional development have been highlighted by the literature reviewed (Keiser & Shen, 2000; Sharp, 2009; Short, 1994). However, the relevance of continuous professional development to teachers' classroom instructional management practices is missing. Another deficit identified in literature was the inconclusive argument between scholars regarding teacher professional competence and students' academic performance. This current study will come out with findings on the significance of teachers' continuous professional development on their classroom instructional practices and how this will advance or retreat students' learning outcomes.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter talks about the methodology used in the study. It discusses the research design adopted for the study, the population, the sampling as well as the sampling technique. It also describes the research instruments, pre-testing of instruments, data collection procedure and data analysis plan. The study adopted the mixed methods approach. The choice of the particular design under the mixed methods approach was also explained. In addition, the validity and reliability of the instruments used were discussed and finally some ethical issues were considered.

3.1 Research Design

Research design is a plan outlining how information is to be gathered from subjects for an assessment or evaluation that includes identifying the data gathering method(s), the instruments to be used, how the instruments will be administered, and how the information will be organized and analyzed (Asamoah-Gyimah & Duodu, 2007; Worgu, 1991). Research design provides the glue that holds the research project together (Trochim, 2006). From the above definitions, it can thus, be described as the overall plan for collecting data in order to answer the research questions.

The general methodology used for this study was the mixed methods approach and the concurrent triangulation being the specific approach. The mixed methods research is described by Creswell (2009) as an approach to inquiry that combines or associates both qualitative and quantitative forms of research. Yin (2006) also defined the mixed methods

research as a systematic integration of quantitative and qualitative methods in a single study for purposes of obtaining a fuller picture and deeper understanding of a phenomenon. From a careful examination of these definitions, one can describe the mixed methods as an approach to research that uses variety of research instruments in a single study to collect and analyze data.

Giving a careful consideration to the research problem, the purpose and the research questions formulated to guide the study in chapter one, the researcher adopted the mixed methods concurrent triangulation strategy, also known as confirmation, disconfirmation, cross-validation or corroboration designs (Creswell, 2009; Morgan, 1998; Steckler, McLeroy, Goodman, Bird & McCormick, 1992;). In concurrent triangulation strategy, both qualitative and quantitative data are collected at the same time and then compared to determine if there is convergence, differences or some combination (Creswell, 2009). In this type of study, the researcher first provides quantitative statistical results, followed by qualitative quotes that support or disconfirm the quantitative results. It is important to state that the qualitative results would not necessarily corroborate the quantitative results and vice versa (Tashakkori & Teddlie, 1998). This model is advantageous because it can result in well-validated and substantiated findings. Also, because the data are collected concurrently, it results in a shorter data collection time period as compared to one of the sequential approaches because both the qualitative and quantitative data are gathered at one time at the research site (Creswell, 2009).

Despite the numerous strengths of the design stated above, the design has some limitations. For instance, it requires great effort and expertise to adequately study a phenomenon with two separate methods. It also can be difficult to compare the results of two analyses using

data of different forms (Creswell & Plano Clark, 2007). Notwithstanding this, the concurrent triangulation is the first point of call when one thinks of collecting both qualitative and quantitative data simultaneously and comparing these data to see if there is a convergence or otherwise, hence the researcher's decision to adopt the concurrent triangulation mixed methods for the study.

3.2 Population of the Study

According to Kusi (2012), population is a group of individuals or people with the same characteristics and in whom the researcher is interested. Ary, Jacobs and Razavieh (1990) also believe that population involves all the people, objects and institutions who are the subjects of the study. In other words, population refers to the group of individuals or people to whom the results of the study are intended to apply. The target population refers to the population that the researcher would ideally like to generalize to (Asamoah-Gyimah & Duodu, 2007). The population for this study comprises seven circuits and 98 public basic schools in KNWD (GES, KNWD, 2014). The targeted population for this study was all basic school teachers in public basic schools in KNWD. The accessible population in this study was all public junior high schools (JHS) and all teachers in public JHS in the KNWD. According to the statistical data obtained from the District Education Directorate, there are 310 teachers including head teachers in the 42 public JHS in the district. The composition of the teachers includes 255 males comprising 185 trained and 70 untrained. There are 55 female teachers comprising 34 trained and 21 untrained (GES, KNWD, 2014).

3.3 Sample Size

Sample is the proportion of a universe or population selected for observation and analysis (Asamoah-Gyimah & Duodu, 2007). There were 310 teachers (including head teachers) in

the 42 public JHS in the district for the 2013/2014 academic year according to the statistical data obtained from the district education directorate. Asamoah-Gyimah and Duodu (2007) suggested that, for most quantitative studies, a sample of 10% to 30% to the universe size is desirable. To this end, a total of 93 teachers representing 30% of the accessible population were selected for the study considering the suggestion from Asamoah-Gyimah and Duodo (2007).

3.4 Sampling Procedure

The researcher selected 14 schools out of the 42 JHS using the quota sampling approach from the seven circuits in the district. This number represents 33.3% of the 42 JHS in the district. This figure was arrived at based on the recommendations of Asamoah-Gyimah and Duodu (2007) stated earlier in this work. The number of junior high schools in each circuit differs from one another; hence the quota sampling was adopted. Quota sampling is a non-probability sampling technique wherein the assembled sample has the same proportions of individuals as the entire population with respect to known characteristics, traits or focused phenomenon (Explorable.com, Sep 1, 2009). Atindanbila (2013) explains that where the researcher is unable to take a probability sample, but still wants a sample that is representative of the entire population, the quota sampling is used. From the above descriptions, it could be concluded that quota sampling aims at obtaining a representative sample from a selection of individuals who are not randomly selected. The quota sampling technique was considered the most appropriate technique considering the unequal distribution of schools and teachers in the circuits and district as a whole. Even though the quota sampling technique was not the only technique which could enable me achieve the

desired sample, its simplistic nature to carry out gave it an added advantage over other forms of sampling techniques.

The quota sampling approach was used to select the number of schools from each circuit because of the unequal number of schools in each circuit. For this reason, each circuit was given a number of schools (quota) based on the total number of schools in the circuit. The quota for each circuit was arrived at using a simple proportion formula by dividing the total number of schools in the circuit by the total number of schools in the district (thus 42) and multiplying it by the total number of schools sampled (thus,14). The aim was to achieve some level of representativeness with regard to the schools selected from each circuit. After arriving at the quota for each circuit, the particular schools to be selected for the study became another challenge. In an attempt to overcome this challenge, the researcher opted for the simple random sampling approach, precisely, the lottery method. With this method every member of the population had an equal and independent chance of being selected for the sample (Atindanbila, 2013). The names of the schools in a circuit were written on pieces of paper, put in a bowl and reshuffled. The pieces of paper with the school names were selected one after the other without looking in the bowl and without replacement until the required quota for the circuit was obtained. The reason was to avoid selecting the same school twice and also, give each school an equal chance of being selected. For instance, if circuit 'A' has eight JHS and the quota for the same circuit is three. Then the names of all JHS in circuit 'A' were written on pieces of paper, kept in a bowl, reshuffled and selected one after the other without looking in the bowl and without replacement, until the quota was arrived at. This procedure was replicated in all the seven circuits in the district. The quota and names of schools selected in each circuit is shown in Table 3.1.

Table 3.1: Number of Schools Selected in the Circuits

Name of Circuit	No. of Schools	Quota Sampled	Schools Selected	No. of teachers selected in each school
Paga Central	7	3	Tedam JHS	8
			St. Theresa JHS	7
			English/Arabic JHS	7
Paga East	6	2	Kazugu R/C JHS	8
			Navio JHS	7
Chiana West	7	3	Katiu JHS	5
			Christ the King JHS	5
			Chiana JHS	4
Chiana East	5	1	Nyangnia JHS	11
Sirigu	5	1	Sirigu JHS	8
Kandiga	5	1	Amenga-Etegu JHS	8
Mirigu	7	3	Mirigu JHS	5
			Wolingom JHS	5
			Nabango JHS	5
Total	42	14		93

Source: GES, KNWD, 2014

Due to the unequal number of teachers in each of these circuits, the quota sampling was again used to select teachers from the seven circuits. A circuit was given a quota based on the number of JHS teachers in the circuit. The quota for each circuit was arrived at using a simple proportion formula by dividing the total number of teachers in the circuit by the total number of teachers in the district (thus 310) and multiplying it by the total number of teachers sampled (thus, 93). The aim was to achieve some level of representativeness. With the exception of Sirigu JHS and Kandiga JHS which had eight teachers exactly, the remaining 12 JHS had more than eight teachers each hence the simple random sampling was used to select teachers from these schools. The teachers were asked to pick pieces of numbered papers. At the end, those who picked even numbers were given questionnaires to answer. For instance, if five teachers were to be selected from a school, pieces of paper numbered one to ten were put in a bowl, reshuffled and given to teachers to pick one by one. Those who selected even numbers were chosen for the study. This procedure was

replicated in all 12 schools. Table 3.2 shows the total number of teachers and the quota sampled in each circuit. For fairness in the distribution of respondents, the researcher was desirous of selecting 14 teachers each from all the seven circuits but the unequal number of teacher population in the circuits did not permit that, hence, the variations in the number of respondents in each circuit. Notwithstanding this lapse, the sampling methods (quota and simple random) used guaranteed some level of fairness.

Table 3.2: Number of Teacher Respondents in the Circuits

Name of Circuit	No. of Teachers		Total	Quota Sampled
	Male	Female		
Paga Central	51	22	73	22
Paga East	38	11	49	15
Chiana West	44	4	48	14
Chiana East	27	8	35	11
Sirigu	24	4	28	8
Kandiga	24	4	28	8
Mirigu	47	2	49	15
Total	255	55	310	93

Source: GES, KNWD, 2014

In all, a total of 14 public JHS with 93 teachers comprising 67.7% (n = 63) males and 32.3% (n = 30) females took part in the study.

3.5 Research Instruments

The research instruments used for collecting data for the study were questionnaire, semi-structured interview guide and observation checklist. According to Kusi (2012) a structured questionnaire contains predetermined standardize questions or items meant to collect numerical data that can be subjected to statistical analysis. It is advantageous to use questionnaire whenever the sample size is large enough to make it uneconomical for reasons of time or funds to observe or interview every subject (Asamoah-Gyimah &

Duodu, 2007). Koul (1997) also thinks a questionnaire is a popular means of collecting all kinds of data in research. Dampson and Mensah (2014) on their part suggested that, in order to gather information about respondents (teachers) opinion on how far they agree or disagree on a statement given, the questionnaire is the ideal instrument. For these reasons, a structured questionnaire was used to gather background information of teachers and their understanding of the concept PD. Observation checklist and interview guide are instruments that are best for collecting facts about people's place of work and to gain insight of an event (Dampson & Mensah, 2014). Hence, observation checklist and semi-structured interview guide were used to gather data on teachers' classroom practices as far as CPD was concerned.

3.5.1 Questionnaire

The questionnaire, dubbed Teachers' CPD and Classroom Practices Questionnaire [TCPD&CPQ] designed by the researcher (see Appendix A) was used to gather data on teachers' understanding of the concept PD. The questionnaire consisted of two sections 'A' and 'B'. Section 'A' contained five items (1 to 5) that elicited information on the bio data of the respondents (teachers). The items sought information on respondents' gender, professional status, age, academic qualifications, and number of times a respondent attended CPD programmes. This background data were considered relevant and is in line with the purpose of the study since the data would provide an insight into the respondents' understanding of issues related to PD which would be useful in answering the research questions.

Section 'B' contained 30 items that elicited information on teachers' understanding of the concept PD, benefits, motivation for partaking in CPD programmes and teachers'

classroom instructional practices. Five items (6-10) sought to elicit information on respondents' understanding of PD/CPD. This information was used to answer research question 1. Items 11 to 15 elicited information on the benefits of CPD programmes to the basic school teacher, which were used to answer research question 2. Items 16 to 20 sought information on teacher's planning and preparedness before delivering lessons. While items 21 to 25 sought information on teacher's classroom management skills. These themes (planning & preparedness and classroom management) fall under a broad theme of teacher quality. Also, items 26 to 30 elicited information on respondent's instructional skills and items 31 to 35 sought information on respondent's assessment strategies. Instructional skills and assessment strategies also fall under a bigger theme of effective teaching. Information gathered from items 16-35 were used together with information from the observation checklist to determine the relationship between teacher quality and effective teaching which was useful in answering research question 4. A 5-point Likert Scale with options (Strongly Disagree-1, Disagree-2, Uncertain-3, Agree-4 and Strongly Agree) was used to ascertain the level of participants understanding of the concept PD.

3.5.2 Observation

According to Asamoah-Gyimah and Duodu, (2007), observation is the act of recognizing and noting facts or occurrences. Observation is a research technique or method which implies collection of evidence, examination or analysis of the evidence and significant judgments based on the evidence and the subsequent implications (Zhang, 2003). In a similar vein, Karma (1999) is of the view that observation is a purposeful and selective watching and listening to an interactive or phenomenon as it takes place without asking the respondents. Here, the researcher observed the respondents lesson notes and teaching and

learning materials as they prepared to teach. Respondents were also observed when they were teaching in the classroom for a period of time (35 minutes). The observation thus, was used to gather information on how teachers plan and prepare before lesson delivery, their classroom management skills, instructional skills and assessment strategies. The aim was to gather information on teachers' classroom instructional practices and to compare it with their responses on the questionnaire to see whether there is consistency or differences. Observation was used because it comes in handy in situations where accurate information cannot easily be obtained by questionnaire; hence, it is good for learning interaction, functions and behaviours of people in a group and for studying phenomenon as they naturally occur by humans (Asamoah-Gyimah & Duodu, 2007; Kusi, 2012). The observation schedule consisted of checklists adapted from Tomlinson & Allan (2000). With guidance from the researcher's supervisor, the items on the observation checklist were rephrased to meet the purpose of the study. The observation checklist consisted of two parts 'I' and 'II' with 20 items measuring teachers' instructional activities. The part I of the observation checklist was captioned 'teacher quality' and had 10 items under it. Items 1-5 observed teachers' planning and preparedness before lesson delivery. Items 6-10 observed teachers' classroom management skills. Part II of the checklist had 'effective teaching' as the heading and also contained 10 items. Items 11-15 observed teacher's classroom instructional skills and items 16-20 observed teachers' classroom assessment strategies. A five-point scale (No-1, Little-2, Sometimes-3, Often-4 and Most Often-5) was used to measure items 1-5 and (Very Poor-1, Poor-2, Satisfactory-3, Good-4 and Very Good-5) was also used to measure items 6-20 (see Appendix B).

3.5.3 Interview

According to Creswell (2007), an interview is a method of field investigation which involves person-to-person interaction between researchers and respondents during which specific questions are asked for specific answers. An interview can either be structured, semi-structured or unstructured (Asamoah-Gyimah & Duodu, 2007; Karma, 1999; Kusi, 2012; Twumasi, 2001). For this study the semi-structured interview was used. Asamoah-Gyimah and Duodu, (2007) described the semi-structured interview as the most appropriate format for getting into a particular situation in the early stage of the investigation because it is more flexible than the structured interview format. Kusi (2012) is of the view that the semi-structured interview is flexible to a greater extent and offers the interviewees the opportunity to express their views, feelings and experiences freely. The purpose for using the semi-structured interview was to enable the researcher to probe the interviewees' responses on the questionnaire for clarification when the need arose as well as to obtain in-depth information. Again, the semi-structured interview was used because it expands the responses of interviewees to ascertain their views on issues regarding continuous professional development and its relevance to their classroom instructional practices.

The interview guide designed contained 14 questions and was also divided into four parts, that is I, II, III and IV. Part I has the broad theme 'understanding continuous professional development' which asked teachers to explain/describe professional development and continuous professional development, state what professional development opportunities they had undertaken since they started teaching, and whether they were consulted before planning continuous professional development programmes. Part II of the guide asked questions on 'benefits of continuous professional development programmes to teachers'.

Under this, teachers were asked to mention three benefits they derive from the continuous professional development programmes they had attended. Part III is captioned ‘motivation for partaking in continuous professional development programmes/activities’. Here, teachers were asked to mention the personal factors that motivate them to participate in continuous professional development programmes, whether they believed these programmes could influence their promotion prospects in the GES, whether teachers were given any welfare packages and how teachers could be encouraged to take active part in professional development programmes. The final part (part IV) had the broad theme ‘influence of continuous professional development programmes on teachers’ classroom practices’. Under this, teachers were asked to describe how the continuous professional development programmes have influenced their instructional skills, professional development, students’ learning outcomes and self-confidence/esteem (see Appendix C). The observed teachers were those interviewed. This information was used to answer research question 3.

3.6 Pre-Testing of Instruments

Pre-testing of research instruments is very crucial because it allows the researcher the opportunity to gather information on any possible ambiguities in the instruments. It also gives the researcher an idea of how the response trend will look like. The pilot study was conducted in the Kassena/Nankana Municipality (KNM). The researcher administered the questionnaire to the teachers after which three of them were observed and interviewed. The pilot testing of the instruments was done in two phases in seven days. The first three days were used for administering and collection of the questionnaire. The third and fourth days were used for the observation of instructional activities of respondents and the last two

days were used for the interview. The try-out involved a sample size of 25 teachers from four JHS in the KNM out of which three of them were observed and interviewed. The KNM was used for the pilot study because it has similar characteristics and features in terms of the setting and inhabitants as the participants in the actual study area (Kusi, 2012). The pilot study was done in this municipality to avoid giving the respondents the fore-knowledge about the information required which will lead to pre-determined responses during the actual study (Kusi, 2012). Also, those undertaking the pilot will have become sensitized to the questions so that any answers they give in the main study will be influenced in a different way from those who have not (Opie, 2004). Another reason for pilot testing the research instruments was to make sure that they (instruments) would be able to elicit the needed response from the respondents during the actual study. Experiences from the pilot study led to a number of modifications of items on the instruments. These include rephrasing ambiguous words and statements on the instruments.

3.6.1 Validity

Validity is one of two key pillars that hold the findings of every research work. An account is valid or true, if it represents accurately those features of phenomena that it is intended to describe, explain or theories (Hammersey, 1987) cited in (Winter, 2000). In other words, a questionnaire is said to be valid if it measures what it is intended to measure. Face and content validity were the two approaches adopted by the researcher to test the validity of the questionnaire, observation checklist and interview guide. To check for face and content validity of the instruments (questionnaire, observation checklist and interview guide), the researcher gave copies of the instruments to his supervisor, colleague graduate students in the same department and others from the Mathematics departments of the University of

Education, Winneba to scrutinize and comment on the items on the instruments. Their suggestions on issues such as ambiguous and lengthy statements were noted and considered. This common sense approach to validity is often important in convincing laypersons because according to Roberts (2000) face validity is making a decision about the appropriateness of use of some particular measuring instrument in a given assessment situation through the process of simple inspection of that instrument.

3.6.2 Reliability

Reliability is the next key pillar aside validity that holds the findings of every research work. Reliability refers to the consistency of a measure (Cherry, 2014). According to Easterby-Smith, Thorpe and Lowe (2002), Reliability measures the stability of an instrument if administered on the same individual on two different occasions. For a survey, reliability is more straightforward if all respondents are presented with the same standardized questions (Robson, 2002). An instrument is thus, considered reliable if we get the same results when it is administered repeatedly. It is against this background that the researcher conducted a pilot study to determine the reliability of the research instruments. After the pilot study, IBM SPSS (version 20) was used to analyze the data from the pilot study to determine the internal consistency (Cronbach's alpha reliability co-efficient) of the questionnaire. At the end of the analysis, the Cronbach's alpha values of the aggregated factors spanned between 0.644 and 0.849 as indicated in Table 3.3. According to Leech, Barrette and Morgan (2005), alpha value of 0.70 and above indicates a reasonable internal consistency and alpha values between 0.60 and 0.69 indicate minimally adequate reliability. Ary, Jacobs and Razavieh (2002) explain that if the results are used to make decisions about a group or for research purposes, reliability coefficients of 0.50 to 0.60 are

accepted. Aside the individual alpha values of the aggregated factors which were reliable, the overall internal consistency of the instrument (questionnaire) was 0.89. Hence the research instrument was accepted and deemed reliable.

Table 3.3: Reliability Coefficients of Teachers' CPD and Classroom Practices

Questionnaire

Factors	No. of Items	Cronbach's Alpha Coefficient
1 Understanding PD/CPD	5	0.702
2 Benefits of CPD Programmes/Activities	5	0.808
3 Planning and Preparedness	5	0.644
4 Classroom Management Skills	5	0.794
5 Classroom Instructional Skills	5	0.758
6 Classroom Assessment Skills	5	0.849
Total	30	

Source: Field data, 2015

Data gathered from the piloting of the observation checklist was used to determine the internal consistency of items on the observation checklist. Reliability was run using IBM SPSS (version 20) and at the end of the analysis, the Cronbach's alpha values of the aggregated factors spanned between 0.747 and 0.957 as shown in Table 3.4. Fraenkel and Wallen (2009) suggested that a reliability figure should be at 0.70 and preferably higher. Based on this, the observation checklist was accepted and considered as reliable.

Table 3.4: Reliability Coefficients of Teachers' CPD and Classroom Practices

Observation Checklist

Factors	No. of Items	Cronbach's Alpha Coefficient
1 Planning and Preparedness	5	0.747
2 Classroom Management Skills	5	0.928
3 Classroom Instructional Skills	5	0.957
4 Classroom Assessment Skills	5	0.756
Total	20	

Source: Field data, 2015

After piloting of the interview was done, the recorded responses of the respondents were transcribed verbatim and given back to respondents for them to clarify and verify their responses. They were also asked to check for omissions and additions where necessary. The transcribed responses were scrutinized through peer review discussion after listening to the recorded version. The responses were found to be appropriate for answering the research questions.

3.7 Data Collection Procedures

An introductory letter from the Basic Education Department of the University of Education, Winneba (see Appendix D) was obtained to facilitate the process. The introductory letter was used to obtain another letter of introduction from the KNWD Education Directorate to carry out the study (see Appendix E). It is imperative to state that the researcher collected data using questionnaire, interview guide and observation checklist for analyses. The questionnaire as stated earlier was used to collect quantitative data while the interview guide and the observation checklist were used to gather qualitative data for the study. Data collected using these research instruments were analyzed separately and the integration done during the interpretation or discussion section of the study (Creswell, 2009; Creswell & Plano Clark, 2007). The interpretation of the data critically examined and included discussing the extent to which the data converge. In doing so, one is attempting to cross-validate and confirm the findings of the study. This process is referred to as concurrent triangulation (Creswell, 2009; Creswell & Plano Clark, 2007).

Collection of data was done in two phases. The first phase was the administering of the questionnaire. The researcher administered the questionnaire personally to the selected teachers during school hours. This was done so as to facilitate faster completion of the

questionnaire. The purpose of the questionnaire was explained to the respondents as captured on the questionnaire preamble before administering to the teachers. In order not to disrupt quality instructional hours, the questionnaire was given to teachers to answer at their own free time. The first phase of the data collection lasted for two weeks. Items on the questionnaire that were not clear to respondents were addressed by the researcher when he went back to collect the completed questionnaire. The researcher also inspected the questionnaire to see if all the items on the questionnaire were answered fully. Those questionnaires that were not fully answered were given back to respondents to answer. Ninety-three questionnaires were administered to the teacher. All the ninety-three (93) administered questionnaires were completed and returned.

The second phase of the data collection involved observation of classroom instructional practices and interview. The researcher observed and interviewed a total of 8 teachers (7 males and 1 female). The eight teachers were selected because they were willing to be observed and interviewed. The researcher observed teachers' classroom instructional teaching. A lesson lasted for a period of 35 minutes and each teacher was observed once. The observations were done in strict compliance with the observation checklist. During the observation, any performance/skill that was exhibited by the teacher, the appropriate response box on the checklist was ticked. After the observation, the interview session followed. The teachers who were observed were those interviewed. The purpose was to check for coherence or otherwise in the responses on both the questionnaire and the observation checklist. The recorded audio taped interviews were transcribed, given back to the interviewees for them to verify the correctness of their responses. The entire data

collection process lasted for eight weeks (three weeks for administering and collection of the questionnaire and five weeks for the observation and interview).

3.8 Data Analysis Procedures

In this study, data were collected using questionnaire, interview guide and observation checklist. Before analyzing the data collected, the researcher checked for completeness of the questionnaire by going through the answered questionnaire one after the other. It was realized that all the items on the questionnaire were answered fully. This could be attributed to the fact that the researcher lives and work in the district. Also, because the researcher himself observed the teachers teach, all the items on the observation checklist were answered fully. The data collected from these instruments were analyzed both quantitatively and qualitatively. According to Dampson and Mensah (2014) research data can be analyzed quantitatively by means of graphs, charts, frequencies, percentages, averages and ratios among others. In view of this, descriptive statistics was used to analyze research questions 1 and 2. The responses were coded as 1 referring to lowest views, 5 as highest views and 3 as uncertain views with regards to teachers' understanding of the concept PD and its benefits. Descriptive statistics for the items were then generated using the IBM Statistical Package for Social Sciences (SPSS, version 20) for easy analyses.

Data from the observation checklist were also analyzed using the descriptive statistics. The responses from the checklist were coded as 1 referring to no evidence, 5 as most evidence and 3 as sometimes and fed into IBM SPSS (20) software. Descriptive statistics was used to generate frequency counts, percentages and frequency tables for analyses. The data from the observation were compared to teachers' responses to items 16-35 on the questionnaire to see if there was any convergence or otherwise. In other words, the observation results

were used to confirm the questionnaire results (Creswell, 2009). This information was used together with the Pearson moment correlation to determine the relationship between teacher quality and effective teaching in research question 4 and also test the hypothesis.

The qualitative data which were collected from the interview guide were transcribed word-for-word by listening to the recorded audio interviews (see Appendix F). The verbatim transcription of the interviews was analyzed according to the themes, understanding professional development and continuous professional development, benefits of continuous professional development, motivation behind partaking in continuous professional development programmes and influence of continuous professional development programmes on teachers' classroom practices. This information was used to cross-validate or triangulate the results from the questionnaire (Morgan, 1998) cited in Creswell (2009). This was done through careful reading of the interviewees' responses to identify unique themes that best answer the research questions. Analyses of the data were carried out for relationships among ideas and putting them into sets on the basis of similar themes (Miles & Huberman, 1994). Data gathered were then grouped under broader converging and integrating themes for analyses.

3.9 Ethical Consideration

According to Kusi (2012), ethics in educational research are those issues that are related to how the educational researchers conduct themselves or their practices and the consequences of these on the people who participate in their research. Ethical issues that were considered in this study are the permission to collect data, informed consent, confidentiality, and anonymity.

3.9.1 Permission to Collect Data

The researcher obtained a letter of introduction from the Department of Basic Education, University of Education, Winneba. This letter was used to obtain another introduction letter from the District Education Directorate, KNWD to enable him have access to participants in the district. The letter from the education directorate was also meant to facilitate the smooth collection of data from the district without violating ethical rules because, it is unethical to enter into an organization or social groups to collect data without permission from the ‘gate-keepers’ of the organization (Kusi, 2012 citing Creswell, 2005).

3.9.2 Informed Consent

Participants were informed about the purpose of the study, how it will be carried out and the role they (participants) are expected to play, the kind of data to be collected and how it would be reported. This was to give the participants the choice to decide whether to participate or not to participate in the study. This kind of information was also necessary because people make decisions to participate in a study depending on the quality of information they receive about it (Kumar, 1999). It was therefore very prudent to equip participants with the needed information so as to get them to participate in the study. Teachers consent and permission were sought for recording the interview being conducted for onward transcription.

3.9.3 Confidentiality and Anonymity

Cohn *et al* (2007) cited in Kusi (2012) explain that confidentiality means that although researchers know who has provided the information or are able to identify participants from the information given, they will in no way make the information known publicly. By this, the researcher made sure that the information provided by participants was treated

with care so that it does not get to unauthorized persons who are not connected to the study in any way. The data collected from participants was also used for the purpose of the study only. In some instances, envelopes were given to participants who felt unsecured of their response to seal their response. This was to assure them of the high level of confidentiality that the researcher attached to their response. These ethical issues were protected by ensuring that participants do not provide their names and addresses on the questionnaire. The researcher also ensured that information about organizations or institutions does not appear in the report of the study.

3.10 Brief History/Description of the Study Area

The study was conducted in the Kassena/Nankana West District (KNWD) of the Upper East Region. The KNWD was purposively selected for the study because of convenience and easy accessibility of respondents. The KNWD is one of the districts in the Upper East Region of Ghana. It has Paga as its district capital. It was established by LI1855 in 2007 and inaugurated on 29th February 2008. It was carved out of the then Kassena/Nankana District Assembly. The Kassena/Nankana West District is located approximately between latitude 10.97° North and longitude 01.10 West. The district has a total land area of approximately 1,004 sq km. The Kassena/Nankana West District shares boundaries with Burkina Faso, Bongo District, Bolgatanga Municipal, Kassena/Nankana Municipal, Builsa District and Sissala East to the North, North East, East, South, South West and West respectively. The Kassena/Nankana West District is part of the interior continental climatic zone of the country characterized by pronounced dry and wet seasons. The two seasons are influenced by two oscillating air masses. First is the warm, dusty and dry harmattan air mass which blows in the north easterly direction across the whole district from the Sahara

desert (late November – early March) and May to October is the wet season. The population of the district as indicated by the 2010 Population and Housing Census was 70,667. This number consists of 34,747 (49.2%) males and 35,920 (50.8%) females with a growth rate of 1% and a population density of 70 persons per sq km. The district capital, (Paga) is located along the trunk road to Burkina-Faso from the Upper East Region. Ghana and Burkina-Faso share boarder in this town. The KNWD is noted on the world map for its famous tourist sites such as The Zenga and Chief Crocodile Ponds, The Pikworo Slave Camp all located in Paga and The Sirigu Pottery located in Sirigu (The Composite Budget of the KNWD Assembly, 2014).



CHAPTER FOUR

RESULTS, FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter presents and discusses the data collected from the field. Presentations of the data were done in line with the research questions. Data collection was done using three instruments namely; questionnaire, interview guide and observation checklist. The discussions of the data were done using the mixed methods approach, precisely, the concurrent triangulation strategy. The focus of the questionnaire was on teachers' understanding of the concept of professional development/continuous professional development (CPD) and its benefits CPD programmes to their professional growth. The questionnaire also gathered information on respondents' bio-data and information on the relevance of CPD to teachers' classroom instructional practices. The interview was used to collect data on the motivation behind teachers' decision to partake in CPD programmes while the observation was used to gather information on how teachers practice and implement some of the instructional strategies learnt at continuous professional development programmes in the classroom. The following research questions and hypothesis guided the study;

1. To what extent does the basic school teacher understand the concept Professional Development/Continuous Professional Development (CPD)?
2. What benefits do teachers derive from CPD programmes and how does this reshape their attitudes towards good classroom practices?

3. What is the motivation behind teachers' decision to participate in CPD programmes?
4. Is there any relationship between teacher quality and effective teaching?

H₀: There is no significant relationship between teacher quality and effective teaching.

H₁: There is a significant relationship between teacher quality and effective teaching.

4.1.0 Presentation of Results

The results gathered from the three instruments (questionnaire, interview guide and observation checklist) were organized into themes for easy discussions. It was also meant to present a clearer picture of the issues raised in the research questions. To gather first hand and more natural information from the respondents, 8 participants (7 males and 1 female) were observed and interviewed on their understanding of continuous professional development and its benefits on their professional growth. SPSS (20) was used to generate frequency tables for a clearer presentation and explanation of the results collected from the questionnaire and the observation schedule. Another reason was to make the discussions of the results easy and understandable.

4.1.1 Bio Data of Respondents

In all ninety-three (93) teachers in the Kassena/Nankana West District in the Upper East Region participated in this study. Questionnaire was administered to the teachers in the district. Items 1 – 4 on the questionnaire sought participants' bio-data (i.e. gender, professional status, age and highest academic qualification). Table 4.1 presents a summary of participants' bio data.

Table 4.1: Respondents Age, gender, Academic qualification and Professional Status

Your age?	Gender			Your professional status		Total (%)
				Trained (%)	Untrained (%)	
22 – 29 years	Male	What is your highest academic qualification?	Cert. 'A' 3 years	1(1.1)	0 (0.0)	1 (1.1)
			Diploma	21 (22.6)	2 (2.2)	23 (24.8)
			First Degree	7 (7.5)	2 (2.2)	9 (9.7)
	Total			29 (31.2)	4 (4.4)	33 (35.6)
	Female	What is your highest academic qualification?	SSSCE/WASSCE	0 (0.0)	3 (3.2)	3 (3.2)
			Diploma	13 (14.0)	0 (0.0)	13 (14.0)
First Degree			3 (3.2)	2 (2.2)	5 (5.4)	
Total			16 (17.2)	5 (5.4)	21 (22.6)	
30 – 39 years	Male	What is your highest academic qualification?	Diploma	9 (9.7)	3 (3.2)	12 (12.9)
			First Degree	13 (13.9)	0 (0.0)	13 (13.9)
			Masters Degree	2 (2.2)	0 (0.0)	2 (2.2)
	Total			24 (25.8)	3 (3.2)	27 (29.0)
	Female	What is your highest academic qualification?	Diploma	1 (1.1)	0 (0.0)	1 (1.1)
			First Degree	7 (7.5)	0 (0.0)	7 (7.5)
Total			8 (8.6)	0 (0.0)	8 (8.6)	
40 – 49 years	Male	What is your highest academic qualification?	First Degree	2 (2.2)	0 (0.0)	2 (2.2)
			Total	2 (2.2)	0 (0.0)	2 (2.2)
	Female	What is your highest academic qualification?	Diploma	1 (1.1)	0 (0.0)	1 (1.1)
			Total	1 (1.1)	0 (0.0)	1 (1.1)
50 – 59 years	Male	What is your highest academic qualification?	First Degree	1 (1.1)	0 (0.0)	1 (1.1)
			Total	1 (1.1)	0 (0.0)	1 (1.1)
Total	Male	What is your highest academic qualification?	Cert. 'A' 3 years	1 (1.1)	0 (0.0)	1 (1.1)
			Diploma	30 (32.2)	5 (5.4)	35 (37.6)
			First Degree	23 (24.7)	2 (2.1)	25 (26.8)
			Masters Degree	2 (2.2)	0 (0.0)	2 (2.2)
	Total			56 (60.2)	7 (7.5)	63 (67.7)
	Female	What is your highest academic qualification?	SSSCE/WASSCE	0 (0.0)	3 (3.2)	3 (3.2)
			Diploma	15 (16.1)	0 (0.0)	15 (16.1)
			First Degree	10 (10.8)	2 (2.2)	12 (13)
	Total			25 (26.9)	5 (5.4)	30 (32.3)
	Total	What is your highest academic qualification?	SSSCE/WASS	0 (0.0)	3 (3.2)	3 (3.2)
Cert. 'A' 3 years			1 (1.1)	0 (0.0)	1(1.1)	
Diploma			45 (48.3)	5 (5.4)	50 (53.7)	
First Degree			33 (35.5)	4 (4.3)	37 (39.8)	
Masters Degree			2 (2.2)	0 (0.0)	2 (2.2)	
Total			81 (87.1)	12 (12.9)	93 (100)	

The information on Table 4.1 indicate that despite government's efforts through the Ministry of Education and the teacher Education Division of the GES to improve the quality of education in the country by training professional teachers for the schools, an appreciable number of untrained teachers (12.9%) still exist in the district. The information also show that majority of the teachers in the district are professionals and have diploma and degree certificates. The information further indicates that majority of the teachers in the KNWD are in their youthful stages with majority of them being professionally trained teachers.

The information presented in Table 4.1 on the participants showed that 87.1% (n = 81) of the teachers in the district are professionally trained teachers with varying academic qualifications with Diploma and First Degree topping the list. This implies that the information collected from the participants regarding continuous professional development and other related issues such as frequency of attending CPD programmes, their involvement in the organization of CPD programmes and how relevant these CPD programmes are to their classroom instructional practices as raised in this study suggests that the opinions and ideas shared by the participants represents that of professionals and carry a lot of credence.

Table 4.2 shows that the teachers who participated in this study had varied experiences with respect to frequency of attending CPD programmes in the GES. Majority of the teachers 65.6% (n = 61) indicated that they attend continuous professional development programmes occasionally while 17.2% (n = 16) said they rarely attend professional development programmes. No reason was given by this group of teachers who indicated that they rarely participate in professional development programmes in the district. But it

could be deduced that these teachers were either not interested in the professional development programmes organized by the GES or the GES did not communicate to them concerning the programmes. Also, a total of 17.2% (n = 16) said they attend professional development programmes often as shown in Table 4.2. This information suggest that the GES need to step up their effort to ensure that all teachers get to participate in continuous professional development programmes especially the 17.2% who rarely attend professional development programmes.

Table 4.2: Respondents Gender, Professional Status and Frequency of Attending CPD Programmes

Gender	Frequency of attending continuous professional development programmes					Total (%)		
	Rarely (%)	Occasionally (%)	Often (%)	Very Often (%)	Most Often (%)			
Male	Professional status	Trained	8 (8.6)	36 (38.7)	6 (6.4)	4 (4.3)	2 (2.1)	56 (60.1)
		Untrained	0 (0.0)	7 (7.5)	0 (0.0)	0 (0.0)	0 (0.0)	7 (7.5)
	Total		8 (8.6)	43 (46.2)	6 (6.4)	4 (4.3)	2 (2.1)	63 (67.6)
Female	Professional status	Trained	6 (6.4)	15 (16.2)	1 (1.1)	2 (2.2)	1 (1.1)	25 (27.0)
		Untrained	2 (2.2)	3 (3.2)	0 (0.0)	0 (0.0)	0 (0.0)	5 (5.4)
	Total		8 (8.6)	18 (19.4)	1 (1.1)	2 (2.2)	1 (1.1)	30 (32.4)
Total	Professional status	Trained	14 (15.0)	51 (54.8)	7 (7.5)	6 (6.5)	3 (3.2)	81 (87.0)
		Untrained	2 (2.2)	10 (10.8)	0 (0.0)	0 (0.0)	0 (0.0)	12 (13.0)
	Total		16 (17.2)	61 (65.7)	7 (7.5)	6 (6.5)	3 (3.2)	93 (100)

Source: Field data, 2015

4.1.2 The Main Issues

The focus of the study was on teacher's continuous professional development and how it shaped their attitude towards teaching and learning thereby influencing how they present lessons in the classrooms. To this end, there was the need to find out how teachers understand professional development, the benefits derived from continuous professional development programmes and how these benefits influence the way teachers present lessons in the classroom

4.1.2.1 Teachers' Understanding of Professional Development/Continuous

Professional Development

Items 6 – 10 on the questionnaire sought to answer research question 1 “To what extent does the basic school teacher understand the concept professional development/continuous professional development?” The results in Table 4.3 show the responses of the participants who took part in the survey.

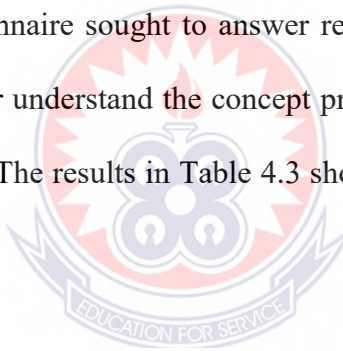


Table 4.3: Teachers' Understanding of Professional Development/Continuous Professional Development

Item	Strongly Agree No. (%)	Agree No. (%)	Uncertain No. (%)	Disagree No. (%)	Strongly Disagree No. (%)
6. Professional development refers to any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms.	44 (47.3)	41(44.1)	5 (5.4)	2 (2.2)	1 (1.1)
7. Continuing professional development encompasses all formal and informal learning that enables individuals to improve their own practice.	27 (29.0)	52(55.9)	8 (8.6)	3 (3.2)	3 (3.2)
8. Continuous professional development programmes should be used as teacher promotion criteria.	17 (18.3)	41 (44.1)	8 (8.6)	17(18.3)	10 (10.8)
9. Professional development programmes include pre-service training and on the job training (In-Service).	29 (31.2)	38(40.9)	13 (14.0)	10(10.8)	3 (3.2)
10. Teachers are consulted when planning continuous professional development activities for them.	10 (10.8)	15(16.1)	15 (16.1)	21(22.6)	32 (34.4)

Source: Fieldwork, 2015

The results in Table 4.3 suggest that the participants (teachers) who responded to this questionnaire item understand professional development to be deliberately planned and continuous training meant to improve teaching and learning. These responses resulted in 47.3% (n = 44) strongly agreeing and 44.1% (n = 41) agreeing to that particular statement on the questionnaire. Cumulatively, the percentage and frequency for the two positive responses is 91.4% (n = 85). Five respondents representing a percentage of 5.4 said they were not certain. The remaining cumulative percentage of 3.2 (n = 3) represent participants who either strongly disagreed or disagreed in their response.

Item 7 on the questionnaire sought teachers' view on the scope of continuous professional development. The results revealed that most of the teachers agreed with Earley and Bubb (2004) that the scope of continuous professional development programmes include formal and informal learning that add value to one's practice. This belief by the teachers manifested in their response to this item. For instance, 55.9% (n = 52) of the respondents 'agreed' and 29.0% (n = 27) of them 'strongly agreed' producing a sum of 84.9% (n = 79). Those who do not share in this belief responded in the negative. Three teachers representing 3.2% strongly disagreed. Another 3.2% (n = 3) disagreed while 8.6% (n = 8) of the teachers said they were not certain.

Teachers were asked whether continuous professional development (CPD) programmes should be used as one of the criterion for promoting teachers in the Ghana Education Service. The results in Table 4.3, row 3 showed that majority of the teachers responded in the positive, that is 44.1% (n = 41) and 18.3% (n = 17) of the respondents agreed and strongly agreed respectively. An appreciable number of respondents, 29.1% (n = 27) either disagreed or strongly disagreed to the statement suggesting that CPD programmes should be considered as part of the criteria for promoting teachers. Eight respondents representing a valid percentage of 8.6 were however not certain on this suggestion.

The next item on the questionnaire is item number 9 which sought to find out from teachers the composition of professional development programmes. Most of the teachers conceive that professional development programmes comprise pre-service and in-service training. Teachers' response to this item was not different from what Rahman *et al* (2011) identified in their work. Hence 40.9% (n = 38) of the teachers agreed and 31.2% (n = 29) of them

strongly agreed to this statement. Those who either disagreed or strongly disagreed totaled 14% (n = 13) while another 14% (n = 13) indicated 'uncertain'.

Responding to item 10 on the questionnaire, results in Table 4.3 showed that 34.4% (n = 32) of the respondents strongly disagreed that they were consulted whenever authorities were to plan continuous professional programmes for them. Also, 21 teachers representing 22.6% of the respondents also disagreed to that effect. Those who were not certain about being consulted or not represented 16.1% (n = 15) of the total respondents. Notwithstanding this, a reasonable number of teachers, 26.9% (n = 25) either agreed or strongly agreed that they were consulted anytime authorities were planning continuous professional development programmes for them.

Based on the results in Table 4.3, it can be concluded that 91.4% (n = 85) of the teachers in the KNWD understand professional development to be any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms. The results in Table 4.3 also show that teachers comprehend other relating issues regarding continuous professional development. For instance 84.9% (n = 79) of the teachers concur that the scope of continuous professional development include formal and informal learning aimed at improving practice. Again, 72.1% (n= 67) of the respondents understand that professional development comprises pre-service and in-service. This response of teachers is in line with Rahman *et al* (2011) assertion. Also, 62.4% (n = 58) of the teachers think attending continuous programmes should be used as teacher one of the criterion for teacher promotion while 57.0% (n = 53) of the teachers believe they should be consulted when planning continuous professional development programmes for them. Arden (2001) stated that, teachers interested in growth and development are in the best

position to determine and prioritize their own professional development needs. So it will not be out of place to consult and involve teachers in the planning of professional development programmes since they (teachers) are the immediate beneficiaries and by extension, their students.

4.1.2.2 Benefits of Continuous Professional Development Programmes to the Teacher

Items 11 – 15 on the questionnaire sought to answer research question 2 “To what extent are continuous professional development programmes beneficial to the professional growth and competence of basic school teachers?” The findings are presented in Table 4.4.

Table 4.4: Benefits of Continuous Professional Development Programmes to the Teacher

Item	Strongly Agree No. (%)	Agree No. (%)	Uncertain No. (%)	Disagree No. (%)	Strongly Disagree No. (%)
11. Continuous professional development (CPD) programmes enable me to gain self-efficacy beliefs which give me the confidence in whatever I am doing	42 (45.2)	40 (43.0)	6 (6.5)	3 (3.2)	2 (2.2)
12. I attend CPD programmes because I believe that it will expand my knowledge and skills, contribute to my growth and enhance my effectiveness with students	48 (51.6)	39 (41.9)	3 (3.2)	0 (0.0)	3 (3.2)
13. I attend CPD programmes to improve my competency and efficiency as a classroom teacher.	49 (52.7)	35 (37.6)	3 (3.2)	2 (2.2)	4 (4.3)
14. I attend CPD programmes because of possible acquisition of new knowledge and skills.	34 (36.6)	47 (50.5)	7 (7.5)	2 (2.2)	3 (3.2)
15. I attend CPD programmes because I believe it would enhance my personality and prestige as a teacher in the society.	21 (22.6)	35 (37.6)	12 (12.9)	14 (15.1)	11 (11.8)

Source: Fieldwork, 2015

The results of item 11 in Table 4.4 reveal that most of the teachers in the Kassena/Nankana West District believe that participating in continuous professional development programmes will afford them the opportunity to become confident and effective in the classroom. This is because a cumulative percentage of 88.2 representing a corresponding frequency of 82 respondents affirmed that CPD programmes enable them to gain self-efficacy beliefs which give them the confidence in whatever they are doing. Not all the teachers were in support of this believe, hence a cumulated number of 5.4% (n = 5) either disagreed or strongly disagreed. Six respondents representing a valid percentage of 6.5 were not certain.

The second row in Table 4.4 houses the assertion 'I attend CPD programmes because I believe that it will expand my knowledge and skills, contribute to my growth and enhance my effectiveness with students'. The results show that 51.6% (n = 48) of the respondents are in favour of '*strongly agree*'. Also, 39 teachers representing 41.9% agreed to this assertion. The remaining 6.4% (n = 6) respondents were either not sure or strongly disagreed.

A good number of the respondents assented that, CPD programmes improve their competency and efficiency as classroom teachers as indicated in Table 4.2 row 3. This resulted in a total of 90.3% (n = 84) either strongly agreeing or agreeing. The remaining 9.7% representing 9 respondents comprise (uncertain (3.2% (n = 3), (disagree (2.2% (n = 2) and (strongly disagree (4.3% (n = 4).

A huge number of respondents, 50.5% (n = 47) in Table 4.2 row 4 agreed that attending continuous professional development programmes lead to possible acquisition of new

knowledge and skills. Also 36.6% (n = 34) teachers strongly agreed to the same assertion. Quiet apart from that, 7.5% (n = 7) were uncertain, 2.2% (n = 2) disagreed and 3.2% representing 3 teachers strongly disagreed.

The results in Table 4.4 revealed that an appreciable number of teachers in the Kassena/Nankana West District do not share in the assertion that continuous professional development programmes enhance their prestige in the society, hence 15.1% (n = 14) of the respondents disagreed while 11.8% (n = 11) of them strongly disagreed and 12.9% (n = 12) were not certain. However, the majority of the respondents think otherwise. This led to 37.6% representing 35 teachers agreeing and 22.6% (n = 21) strongly agreeing that continuous professional development programmes add value to their personality and prestige in the society.

The results in Table 4.4 revealed that teachers derive a lot of benefits from professional development programmes. These benefits include; gaining confidence and self-efficacy, expansion of knowledge and skills leading to professional growth and effectiveness, improved competency and efficiency, possible acquisition of new knowledge and enhance prestige in the society. These results confirm what other studies (Keiser & Shen, 2000; Sharp, 2009; Short, 1994) outlined as some of the benefits teachers derive from continuous professional development programmes

4.1.2.3 Teacher Quality and Effective Teaching

Items 16 – 35 on the questionnaire and 1 – 20 on the observation checklist sought to answer research question 4; “is there any relationship between teacher quality and effective teaching?” But this broad theme has been divided into two sub-themes, that is, teacher

quality (planning & preparedness and classroom management) and effective teaching (instructional skills and assessment strategies) for easy categorization. The discussions of the responses from the questionnaire on these themes will be done side-by-side the results obtained from the observation schedule.

4.1.2.4 Teacher Quality

This aspect of the questionnaire sought to collect data on the teachers' planning and preparedness before entering the classroom to deliver their lessons. It also sought to gather data on how teachers manage the teaching and learning environment (classroom) during the teaching and learning process to enhance students' understanding.

4.1.2.4.1 Planning and Preparedness

Teachers in the Kassena/Nankana West District responded to items on the questionnaire concerning their planning and how they prepare before entering the classroom to deliver their lessons. For the researcher to ascertain the authenticity of the responses given by the respondents with regard to their preparation and classroom practices, it was necessary to conduct an observation of their classroom instructional practices. The teachers' responses and the observation results on planning and preparedness are presented in Tables 4.5 and 4.6 respectively.

Key to Tables 4.5, 4.7 and 4.9

SA = Strongly Agree (5), A = Agree (4), UC = Uncertain (3), D = Disagree (2), SD = Strongly Disagree (1), WM = Weighted Mean, ST. D = Standard Deviation and I = Interpretation.

Interpretation of Weighted Means for Tables 4.5, 4.7 and 4.9

5 = Strongly Agree; 4-4.9 = Agree; 3-3.9 = Uncertain; 2-2.9 = Disagree and 1-1.9 = Strongly Disagree.

Key to Table 4.6

MO = Most often (5), O = Often (4), ST = Sometimes (3), L = Little (2), N = No (1), WM = Weighted Mean, ST. D = Standard Deviation and I = Interpretation.

Interpretation of Weighted Means for Table 4.6

5 = Most often, 4-4.9 = Often, 3-3.9 = Sometimes, 2-2.9 = Little, and 1-1.9 = No

Tables 4.5 and 4.6 sought to measure the same construct, but Table 4.6 is a confirmation of the responses in Table 4.5. Items in Table 4.5 asked respondents how they prepare before entering the classroom to deliver their lessons. The respondents agreed that planning and preparing effective lessons with SMART objectives, selecting appropriate teaching method relevant to the course content and using appropriate teaching and learning materials for their teaching were some of the activities they carry out before entering to deliver their lessons. Teachers also agreed that they select appropriate teaching contents that support standards, topic and age of students and that their instructional strategies are always in line with the lesson objective. Generally, teachers agreed that they plan and prepare before going to the classroom to deliver lessons to students. This is shown by a mean of means score of 4.41 and a standard deviation of 0.70 as shown in Table 4.5.

Table 4.5: Planning and Preparedness

Item	SA	A	UC	D	SD	WM	St. D	I
16. I plan and prepare effective lessons with specific, measurable, achievable, realistic and time bound (SMART) objectives.	59	31	2	0	1	4.58	0.65	A
17. I select appropriate teaching methods relevant to the course content.	51	37	4	1	0	4.48	0.64	A
18. I use appropriate teaching and learning materials for my teachings.	42	42	8	0	1	4.33	0.73	A
19. I select appropriate teaching contents that support standards, topic and age of students.	39	41	9	3	1	4.23	0.84	A
20. My instructional strategies are always in line with the lesson objectives.	46	42	4	1	0	4.43	0.63	A

Mean of Means = 4.41 Standard Deviation = 0.70

Source: Fieldwork, 2015

Teachers' responses in Table 4.5 were confirmed by the observation results in Table 4.6. The observation results reveal that teachers plan and prepare lessons with SMART objectives often (mean score = 4.75, standard deviation = 0.46) and this is followed by teachers selecting appropriate teaching methods relevant to the course content (mean score = 4.63, standard deviation = 0.52). Generally, the observation results recorded a mean of means score of 4.48 and a standard deviation of 0.70 indication that teachers plan and prepare often before entering the classroom to teach. These results are essential because planning and preparing is the first step towards improving students' academic achievements in the teaching and learning processes (Adamson & Darling-Hammond, 2011; Peske & Haycock, 2006). Teachers in the KNWD have stated in their responses and by observation demonstrated that they engaged in these important exercises before entering the classroom to teach the students.

Table 4.6: Observation of Teachers' Planning and Preparedness

Item	MO	O	ST	L	N	WM	St. D	I	
1. Teacher plans and prepares effective lessons with specific, measurable, achievable, realistic and time bound (SMART) objectives	6	2	0	0	0	4.75	0.46	O	
2. Teacher selects appropriate teaching methods relevant to the course content.	5	3	0	0	0	4.63	0.52	O	
3. Teacher uses appropriate teaching and learning materials for his/her teachings.	6	1	0	1	0	4.50	1.07	O	
4. Teacher selects appropriate teaching contents that support standards, topic and age of students.	3	4	1	0	0	4.25	0.71	O	
5. Teacher's instructional strategies are always in line with the lesson objectives.	4	3	0	1	0	4.25	1.04	O	
Mean of Means = 4.48		Standard Deviation = 0.76				Source: Fieldwork, 2015			

4.1.2.4.2 Classroom Management Skills

'Classroom management skills' is a sub-theme under teacher quality. Items under this theme sought to gather data on how teachers present and manage the classroom environment for effective teaching and learning to take place. Items 21 – 25 on the questionnaire and items 6 – 10 of the observation schedule sought to measure these constructs. The results are presented in table 4.7 and 4.8 respectively.

Key to Tables 4.8, 4.10 and 4.12

VG = Very Good (5), G = Good (4), S = Satisfactory (3), P = Poor (2), VP = Very Poor (1),

WM = Weighted Mean, St. D = Standard Deviation and I = Interpretation

Interpretation of Weighted Means for Tables 4.8, 4.10 and 4.12

5 = Very Good, 4-4.9 = Good, 3-3.9 = Satisfactory, 2-2.9 = Poor and 1-1.9 = Very Poor

Apart from being uncertain on their ability to establish classroom management systems that are favourable for each individual student (mean score = 3.98, standard deviation = 1.00), the teachers agreed that they believe they can do much to foster students' creativity in their classrooms and also have what it takes to control disruptive behaviour from students during lessons. Teachers again agreed that they can keep a few problem students from disrupting an entire lesson, are able to create a favourable learning atmosphere and maintain a positive rapport with students in the classroom during lesson delivery. On the whole, it could be agreed that teachers have good classroom management skills judging from the mean of means of 4.14 and a standard deviation of 0.85 recorded in Table 4.7.

Table 4.7: Classroom Management Skills

Item	SA	A	UC	D	SD	WM	St. D	I	
21. I believe I can do much to foster students' creativity in my classroom	35	48	8	1	1	4.24	0.74	A	
22. I am able to control disruptive behaviour in the classroom.	29	53	6	3	2	4.12	0.83	A	
23. I am able to establish classroom management systems that are favourable for each individual student.	30	42	14	3	4	3.98	1.00	UC	
24. I can keep a few problem students from disrupting an entire lesson.	26	55	6	2	4	4.04	0.91	A	
25. I am able to create a favourable learning atmosphere and maintain a positive rapport with students in the classroom.	45	39	6	2	1	4.34	0.79	A	
Mean of Means = 4.14					Standard Deviation = 0.85			Source: Fieldwork, 2015	

The observation of teachers' classroom management revealed that teachers were satisfactory in their quest to foster students' creativity in their classroom. Again, it emerged from the observation that teachers' ability to create a favourable learning atmosphere and also maintain a positive rapport with students in the classroom during teaching was also satisfactory. Apart from these two skills, where teachers' performance was satisfactory, teachers' ability to control disruptive behaviour in the classroom, establish classroom management systems that are favourable for each student and keeping a few problem students from disrupting an entire lesson during lesson delivery were good. The observation results produced a mean of means of 4.20 and a standard deviation of 1.13 as shown in Table 4.8. This indicates that teachers exhibited good classroom management skills. Good classroom management is one of the characteristics Strong (2011) captured in his definition of teacher quality that leads to higher students' academic achievement.

Table 4.8: Observation of Teachers' Classroom Management Skills

Item	VG	G	S	P	VP	WM	St. D	I
6. Teacher does much to foster students' creativity in his/her classroom.	3	3	1	0	1	3.88	1.36	S
7. Teacher is able to control disruptive behaviour in the classroom.	7	0	0	1	0	4.63	1.07	G
8. Teacher is able to establish classroom management systems that are favourable for each individual student	2	5	0	1	0	4.00	0.93	G
9. Teacher keeps a few problem students from disrupting an entire lesson	7	0	0	1	0	4.63	1.06	G
10. Teacher is able to create a favourable learning atmosphere and maintain a positive rapport with students in the classroom.	2	5	0	0	1	3.88	1.25	S
Mean of Means = 4.20 Standard Deviation = 1.13 Source: Fieldwork, 2015								

4.1.2.5 Effective Teaching

Effective teaching (instructional skills and assessment strategies) is the second sub-theme under teacher quality and effective teaching. Under this theme, the researcher sought to gather information on teachers' classroom instructional practices. Items 26 – 35 on the questionnaire and items 11 – 20 on the observation checklist were formulated for this purpose.

4.1.3.2.1 Instructional Skills

Items 26 – 30 on the questionnaire and 11 – 15 on the observation schedule tried to look at teachers' instructional skills during the teaching and learning process in the classroom. The findings are presented in table 4.9 and 4.10 respectively.

The results in Table 4.9 show that teachers generally agreed that they use skills that promote students' understanding. This is shown by a mean of means score of 4.28 and a standard deviation of 0.70. The item with the highest mean score of 4.51 and a standard deviation of 0.65 is teachers' use of appropriate questioning techniques to involve students in lessons and also to monitor students progress in lessons, followed by promoting discussions about subject matter, team work and sharing of ideas among their students with a mean score of 4.38 and a standard deviation of 0.66. The item with the least mean score of 4.11 and a standard deviation of 0.79 is teachers' use of variety of instructional strategies to work with total groups, small groups and individuals.

Table 4.9: Instructional Skills

Item	SA	A	UC	D	SD	WM	St. D	I
26. I promote discussions about subject matter, team work and sharing of ideas among my students	43	43	6	1	0	4.38	0.66	A
27. I can do much to help my students think critically	31	52	9	1	0	4.22	0.66	A
28. I use variety of instructional strategies to work with total groups, small groups and individuals	30	47	12	4	0	4.11	0.79	A
29. I use variety of instructional strategies to meet the diverse learning needs of students	33	46	13	0	1	4.18	0.75	A
30. I use appropriate questioning techniques to involve students in lessons and also to monitor students' progress in my lessons	52	38	2	0	1	4.51	0.65	A
Mean of Means = 4.28 Standard Deviation = 0.70 Source: Fieldwork, 2015								

Table 4.10 houses the observation results on teachers' classroom instructional skills. With the exception of teachers' use of variety of instructional strategies to work with total groups, small groups and individuals, where they performed satisfactorily (mean score = 3.75, standard deviation = 1.17), teachers were good in promoting discussions about subject matter, team work and sharing of ideas among their students. Again, teachers were good in helping their students think critically and use of variety of instructional strategies to meet the diverse learning needs of students. Teachers also did well regarding the use of appropriate questioning techniques to involve students in lessons and also to monitor students' progress in their lessons. The observation results generated a mean of means score of 4.15 and a standard deviation of 1.07 signaling a good performance. These results is in line with Riggall (2013) assertion that the skillful use of well-chosen questions to engage and challenge learners, and to consolidate understanding, is an important feature of effective teaching.

Table 4.10: Observation of Teachers' Classroom Instructional Skills

Item	VG	G	S	P	VP	WM	St. D	I	
11. Teacher promotes discussions about subject matter, team work and sharing of ideas among my students	5	2	0	0	1	4.25	1.39	G	
12. Teacher dose much to help my students think critically	5	2	0	1	0	4.38	1.07	G	
13. Teacher uses variety of instructional strategies to work with total groups, small groups and individuals	1	6	0	0	1	3.75	1.17	S	
14. Teacher uses variety of instructional strategies to meet the diverse learning needs of students	1	6	1	0	0	4.00	0.54	G	
15. Teacher uses appropriate questioning techniques to involve students in lessons and also to monitor students' progress in his/her lessons	6	0	1	1	0	4.38	1.19	G	
Mean of Means = 4.15			Standard Deviation = 1.07			Source: Fieldwork, 2015			

4.1.2.5.2 Assessment Strategies

Assessment strategies, is a sub-theme under effective teaching. The items under assessment strategies sought to examine strategies used to evaluate lessons and progress of work done in the classroom during lessons. Items 31 – 35 on the questionnaire and 16 – 20 of the observation schedule sought to find out how well teachers use assessment strategies to evaluate their lessons and students progress in the classroom during teaching. The findings are presented in tables 4.11 and 4.12 respectively.

Key to Table 4.11

GD = Great Deal (5), QB =Quite a Bit (4), L = Little (3), VL = Very Little (2), Nt = Nothing (1), WM = Weighted Mean, St. D = Standard Deviation and I = Interpretation

Interpretation of weighted means for Table 4.11

5 = Great Deal, 4-4.9 = Quite a Bit, 3-3.9 = Little, 2-2.9 = Very Little and 1-1.9 = Nothing

Apart from teachers indicating that they can do little in providing appropriate challenges for every capable student in their classroom (mean score = 3.92, standard deviation = 0.81), they indicated that they can do quite a bit implementing alternative strategies in their classroom and also provide alternative explanation/example when students are confused. Again, it is clear from Table 4.11 that teachers could do quite a bit in using a variety of assessment strategies to improve students' understanding of concepts and ideas and also gauge students' comprehension of what they have taught. Based on the mean of means score of 4.21 and a standard deviation of 0.81, it can be concluded that teachers do quite a bit well in using assessment strategies to promote students learning in the classrooms.

Table 4.11: Assessment Strategies

Item	GD	QB	L	VL	Nt	WM	St. D	I
31. How well can you implement alternative strategies in your classroom?	29	44	15	4	1	4.03	0.86	QB
32. How well can you provide appropriate challenges for every capable student in your classroom?	22	47	19	5	0	3.92	0.81	L
33. How well can you provide alternative explanation/example when students are confused?	56	27	9	1	0	4.48	0.72	QB
34. How well can you use a variety of assessment strategies to improve students' understanding of concepts and ideas?	46	32	10	5	0	4.28	0.86	QB
35. How well can you gauge students' comprehension of what you have taught?	51	26	13	3	0	4.34	0.84	QB

Mean of Means = 4.21**Standard Deviation = 0.81****Source: Fieldwork, 2015**

The results in Table 4.12 revealed that teachers performed satisfactorily in implementing alternative strategies in the classroom, providing appropriate challenges for every capable student in the classroom and gauging of students' comprehension of they have taught. However, teachers were good in providing alternative explanation/examples when students were confused and the use of variety of assessment strategies to improve students' understanding of concepts and ideas. From Table 4.12, the generally, performance of teachers was satisfactory since a mean of means score of 3.78 and a standard deviation of 1.12 were recorded. These results means that more training in the areas of assessment strategies need to be provided for teachers to develop competence in these areas.

Table 4.12: Observation of Teachers' Classroom Assessment Strategies

Item	VG	G	S	P	VP	WM	St. D	I
16. Teacher is able to implement alternative strategies in the classroom	0	6	1	0	1	3.50	1.07	S
17. Teacher is able to provide appropriate challenges for every capable student in the classroom	1	5	0	2	0	3.63	1.06	S
18. Teacher is able to provide alternative explanation/example when students are confused	6	0	1	1	0	4.38	1.19	G
19. Teacher is able to use a variety of assessment strategies to improve students' understanding of concepts and ideas	4	2	1	1	0	4.13	1.13	G
20. Teacher is able to gauge students' comprehension of what he/she has taught	0	5	1	1	1	3.25	1.17	S
Mean of Means = 3.78	Standard Deviation = 1.12		Source: Fieldwork, 2015					

4.2.0 Discussion of Results

This section of the research discusses the results of the study. The discussions will be done in themes as captured in the research questions.

4.2.1 Teachers' Understanding of the Concept Professional Development/Continuous Professional Development

This study generally gathered relevant information in an attempt to answer research question one under this theme. The information gathered and presented in Table 4.3 and also in the interview revealed that most of the participants understood the meaning of the concept professional development. For example, 91.4% (n = 85) out of the 93 participants understood professional development to be any planned continuous in-service offered to teachers to improve teaching and learning methods in schools and classrooms. The interview results also revealed that majority of the respondents could in a way explain/describe what professional development is. For instance, six out of the eight teachers interviewed made the following comments in their explanation:

Teacher 6: erm... professional development can be described as any planned programme or activity that is meant to enhance teachers competency in the classroom.

Teacher 4: I think professional development is the continuous training that is given to teachers to improve their teaching skills in the classrooms.

Teacher 7: professional development can be described as any planned training that is meant to improve teachers teaching skills in the classrooms whiles on the job.

Teacher 3: eerrmm... I think eerrmm ... any training like in-service training that is designed to help teachers improve in their profession is professional development.

Teacher 8: I think professional development is any planned in-service training that is given to teachers on the field to enhance their teaching skills and methods.

Teacher 5: professional development is eerrmm.... errmm... include in-service training and workshops which is given to teachers to make them effective in their teachings.

Clearly, the questionnaire results showed largely that, teachers understand the meaning of professional development as outlined in the literature gathered from experts in this area. This is confirmed by the interview responses of the six teachers as reported above. It can be deduced from the teachers' comments in the interview and the findings in Table 4.3, that a good number of the respondents understand professional development (PD) to mean any planned continuous in-service training offered to teachers to improve teaching and learning. Teachers' knowledge on the concept of professional development is a big leap towards the change that we all expect to see in the performance of students at the basic level. This is because change is the constant thing that confronts the world today and teachers as all individuals need to adjust to cope with these changes. Also, teachers' understanding of continuous professional development will help shape their attitude and mind set about teaching (OECD, 2009). When teachers understand issues related to CPD, it will tune their minds toward the ultimate goal (students' achievement). This is so because PD focuses on developing and orienting the teacher towards improving the academic performance of students in the classrooms and schools. Another implication is that when teachers understand that continuous professional development is about lifelong learning to improve competence, teachers will condition themselves to embrace challenge so as to be able to adapt to life's circumstances and the environment. Similarly, teachers' understanding of professional development has a link to how they practice and the kind of teaching strategies they adopt is dependent on this as well (OECD, 2009). In short, the

teachers' understanding of the concept of professional development is in line with what Earley & Bubb (2004) and Day (1999) have put up in the literature reviewed.

The results in Table 4.3 also showed that teachers have experiences on other relating issues regarding continuous professional development. For instance, 84.9% (n = 79) of the participants understood the scope of continuous professional development to include all formal and informal learning meant to improve practice. Teachers also believed that they need to be consulted when planning professional development programmes for them. On the composition of professional development, teachers said professional development programmes include pre-service and in-service. This assertion of teachers reflected in the interview response of all eight teachers when they were asked the types of professional development opportunities they have undertaken. Some of the participants made the following comments:

Teacher 2: I have undertaken eerm... in-service training, workshops, seminars and even sandwich courses.

Teacher 8: yeah...I think after my professional training, I have attended a number of in-service training, workshops and seminars.

Teacher 3: yeah well...am new in the system, just one year, but I have been to a number of workshops.

The teachers' comments in the interview are consistent with the findings in Table 4.3 where 72.1% (n = 67) of the respondents affirmed that professional development programmes include pre-service and on the job training (in-service). The general response of participants in Table 4.3 and interview response suggest largely that teachers understand professional development and other issues relating to it. For this reason, the teachers

believed that they should be involved in the planning of their own learning. This notion is reflective in the significant number of the teachers who denied being consulted when CPD activities are planned for them (see Table 4.3 item 10). This denial implies that teachers, feel they have something to contribute when it comes to their own learning and therefore believe they should be consulted if not deeply involved. These feelings that teachers harbor in them reflected in their responses in the interview when they were asked, whether they were consulted regarding planning of CPD programmes for them. Three of the teachers had this to say;

Teacher 1: No.... I have never been consulted; I only get a circular inviting me to come for a workshop that's all.

Teacher 8: No... I don't think I remember ever being consulted regarding workshop or in-service training for inputs.

Teacher 5: No... never!.... I have never been consulted for anything on continuous professional development

The teachers' comments and feelings suggest that as adults, they are capable of assisting in the planning and implementation of their own learning; and that planners of adult learning programmes and learners (teachers) should shape course content based on addressing teachers' current needs. In other words teachers need to be involved by way of consultation in the planning and evaluation of their own leaning.

4.2.2 Benefits of Continuous Professional Development Programmes to the Teacher

Having found out from teachers the meaning of professional development, they were asked to give the benefits of continuous professional development programmes. The results are

presented in Table 4.4. From the Table, it can be seen that many of the teachers attested that continuous professional development programmes have a lot of benefits in their personal lives and also as classroom teachers. Some of these benefits include; gaining confidence and self-efficacy, expansion of knowledge and skills leading to professional growth and effectiveness, improved competency and efficiency, possible acquisition of new knowledge and enhance prestige in the society. Again, all the eight teachers interviewed affirmed that the continuous professional development programmes they have attended have benefited them in one way or the other. In a follow up, they were asked to mention three of such benefits. Below are the comments made by five of the teachers interviewed;

Teacher 8: first of all you learn new ideas that increase your knowledge; you learn new teaching strategies that make you competent and efficient in the classroom and eerrmm...it also makes you confident and independent in the profession

Teacher 3: yes... as I said you benefit eerr... like learning new and improved teaching methods, errmm... you learn something new to add to your knowledge and you network as well.

Teacher 1: oooo..... I believe it has increased my knowledge, it has improved my experience and my teaching methods too have been enhanced.

Teacher 6: it makes you confident when you are teaching the students; you learn new things that add to your knowledge and you also new methods that improve your teachings.

Teacher 2: eerrmmm..... I have benefited from the resource persons they brought to train us in many ways. For instance, my teaching skills have improved, my communication skills too has improved and errmm... also,...eerrm my classroom control too is now good

Both the questionnaire results (Table 4.4) and the interview findings again largely point out that teachers derive a lot of benefits from PD programmes including, improve their competency and efficiency in the classrooms thereby leading to higher students academic achievement. It can be inferred from the findings above and confirmed by literature (Keiser & Shen, 2000; sharp, 2009; Short, 1994; Steyn, 2008) that improving teachers' knowledge, competency and skills is one significant step towards reshaping and redirecting teachers' attitude towards good classroom management practices. And, by this revelation, the path has been created for authorities to step-up their efforts in providing professional development opportunities for teachers because, teachers and by extension students derive a lot of benefits from these PD programmes.

4.2.3 Motivation behind Teachers' Decision to Participate in Continuous Professional Development Programmes

An interview was conducted on teachers to seek their views on the motivation behind their decision to participate in continuous professional development (CPD) programmes in the district. Their views helped in answering research question 3; "What is the motivation behind teachers' decision to participate in CPD programmes?"

Teachers stated in their responses that they have attended a number of professional development programmes including in-service trainings, seminars, workshops, refresher courses and sandwich programmes. The teachers made the following comments;

Teacher 1: types?... hmm... I have attended workshops, err and refreshers courses

Teacher 2: I have undertaken eerrm... in-service training, workshops, seminars and even sandwich courses.

Teacher 5: I have attended workshops, seminars both within the district and outside the district.

Teacher 8: yeah...I think after my professional training, I have attended a number of in-service training, workshops and seminars.

Teacher 6: yes... once, I remember they ever brought a circular that we should give challenging topics in our subjects to the office. That circular was from the training officer at the education office.

In view of these experiences, teachers were asked to state what factors motivated them to participate in CPD programmes. In their responses, teachers expressed similar views regarding the motivation for their participation in CPD programmes. Five out of the eight teachers interviewed think factors such as enhancing one's knowledge, upgrading of teaching skills, being efficient and effective in one's subject area motivate them to partake in CPD programmes. The following are transcribed excerpts of what the teachers said;

Teacher 8: yeah... errmmm.... I think teachers are motivated by the fact that they will learn something new at these workshops which will improve their performance as teachers, also, to upgrade their teaching skills and to add to their knowledge.

Teacher 1: to enhance your teaching abilities and then to also enhance your knowledge.

Teacher 3: is to...is to upgrade their skills in teaching and handling of students in the classroom.

The views expressed by teachers in the excerpts above imply that teachers hope to gain a lot of practical experiences from CPD programmes which they can impart to their students. It is therefore imperative to mention that CPD programmes that fail to address these needs are unlikely to succeed and might not get the support of teachers. This is because what teachers hope to gain through CPD programmes are specific, concrete and practical ideas that directly relate to the day-to-day operation of their classroom (Fullan & Miles, 1992). Also, the comments expressed by the teachers are not different from the expressions of Gaskey (2002) that teachers are attracted to professional development programmes because of their belief that it will expand their knowledge and skills, contribute to their growth and enhance their effectiveness with students.

Teachers also stated that apart from the above mentioned factors, providing them with more learning opportunities and avenues will be a welcoming gesture. The teachers made the following remarks;

Teacher 8: yes... I think teachers should be given more frequent learning opportunities through workshops, seminars and in-service trainings.

Teacher 6: when teachers are involved in the planning of in-service trainings and workshops. They should also be given more opportunities to learn new things that come out daily through workshops and seminars.

Teacher 1: well ... eerr...I think the authorities should organize more in-service trainings for us always so that we can be abreast with current methods and strategies of teaching.

Teacher 2: if more workshops and seminars are organized for teachers in the district. I believe this will increase our self-confidence and will serve as another motivating factor.

These comments from teachers suggest that they need frequent learning opportunities (positive reinforcement) so as to lessen the burden societal change in the teaching and learning arena. Again, teachers' comments suggest that anytime they have the opportunity to attend professional development programmes, they are motivated by the fact that they (teachers) are going to learn something new that will be of benefit to them and their students.

Having found out from teachers their motivation for participating in CPD, they were further interrogated on whether they believed that CPD programmes can influence their promotion prospects in the Ghana Education Service (GES) positively. This was to enable the researcher to compare the responses given by the teachers in Table 4.3 item 8 that contain issues on promotion. All eight teachers who were interviewed shared similar sentiments in their comments with regard to CPD programmes and promotion prospects in GES. Here is what the teachers think;

Teacher 1: yes... now that you... when you are, you apply for promotion they normally ask you to bring along your certificates of workshops and other things, aha, so when you attend workshop, it enriches your CV.

Teacher 5: yes... yes because sometimes after training at the college, these workshops present another opportunity for you to learn something new. These new things always keep you informed and whenever you attend an interview for promotion, it puts you ahead of your colleagues. So I see it to have a positive influence on teachers' promotion prospects.

Teacher 6: yes... actually I believe it can enhance my promotion positively, because the last one that I attended exposed me to many new things and this has added to my experience, as the saying “experience is the best teacher” so I believe it can enhance my promotion.

Teacher 8: yes... I think if teachers are given certificates after every workshop, it will add to your CV and inform the interviewing panel the number of workshops and in-service training you have attended and this might give a push ahead of your peers. So I think it can help in a way.

The above comments from the teachers show that they all share similar concerns regarding promotion prospects and CPD programmes in the GES. Also, the concerns expressed are consistent with the questionnaire results in Table 4.3 item 8 where 62.4% (n = 58) of the respondents affirmed that CPD programmes should be considered as part of the criteria for teacher promotion in GES. Again, these concerns raised by the teachers are not different from the suggestion made by Dunn (2002) in the literature reviewed that positive reinforcement or rewards can include verbal reinforcement such as “that’s great” or “you’re certainly on the right track” through to more tangible rewards such as certificates at the end of the course or promotion to a higher level in an organization. Similarly, certificates obtained after attending workshops/seminars and the effectiveness of these teachers in applying the knowledge acquired in the teaching and learning process should be one of the bases for promotion in the GES and not necessarily how long the person has been in the teaching service.

4.2.4 Teacher Quality and Effective Teaching

The information gathered on this theme was used to answer research question 4 “Is there any relationship between teacher quality and effective teaching?” But this broad theme has been divided into two sub-themes, that is, teacher quality (planning & preparedness and classroom management) and effective teaching (instructional skills and assessment strategies) for easy categorization and comparison. The discussions of the responses from the questionnaire on these themes will be done side-by-side the results obtained from the observation schedule and the interview responses.

The questionnaire results presented in Tables 4.5, 4.7, 4.9 and 4.11 together with the observation findings presented in Table 4.6, 4.8, 4.10 and 4.12 have shown on a broader picture that the knowledge gain by teachers through CPD programmes are relevant to their classroom instructional practices and go to influence the way they handle subjects in the classroom which result in higher students’ academic achievement as suggested in the works of Shriki and Lavy (2012); Sharp (2009); Rahman, *et al* (2011) and Steyn (2008).

Comparing the results in Tables 4.5 and 4.6, the findings reveal that, teachers plan and prepare adequately before entering the classroom to deliver lessons. This is evident in the statistics presented in the two tables. For instance it was observed in Table 4.6 that planning and preparing lessons with SMART objectives (mean score = 4.75 and standard deviation = 0.46) was the commonest activity carried out by teachers during their preparation stages before going to teach. This is followed by selecting appropriate teaching methods relevant to the course content (mean score = 4.63, standard deviation = 0.52). These findings were consistent with the results in Table 4.5 where teachers agreed to planning and preparing lessons with SMART objectives (mean score = 4.58, standard

deviation = 0.65) and is followed by selecting appropriate teaching methods relevant to the course content (mean score = 4.48 , standard deviation = 0.64). It could be deduced from these comparisons and the mean of means scores for Table 4.5 (mean of means score = 4.41, standard deviation = 0.70) and Table 4.6 (mean of means score = 4.48, standard deviation = 0.76) that teachers exercise greater care and caution with respect to planning and preparedness before entering the classroom to deliver lessons.

Tables 4.7 and 4.8 present findings on teachers' classroom management skills still under 'teacher quality'. Looking at the findings in Table 4.7 (questionnaire) and Table 4.8 (observation), it can be seen in Table 4.7 that teachers were uncertain about their ability to establish classroom management systems that are favourable for each individual student (mean score = 3.98, standard deviation = 1.00). Apart from that, teachers generally agreed that they create enabling and conducive learning environment with regard to classroom management since a mean of means score of 4.14 and a standard deviation of 0.85 were recorded. The findings in Table 4.8 showed that teachers performed satisfactorily in their bid to foster students' creativity in their classroom. They were also satisfactory in creating a favourable learning atmosphere for students. The overall assessment of teachers' performance regarding their classroom management skills showed that they were good. This is evident in the mean of means score of 4.20 and standard deviation of 1.13 recorded for Table 4.8. In short, the findings in Tables 4.7 and 4.8 are indications that teachers in the district have firm control when it comes to classroom management. These findings affirm Bolam (1993) assertion that professional training provides teachers with specific strategies in teaching specific subjects, managerial and peripheral trainings. This implies that the

teachers are able to create a classroom atmosphere that promotes students' learning, sharing of ideas and understanding of concepts.

The findings in Tables 4.9 to 4.12 fall under effective teaching. Tables 4.9 and 4.10 present statistics on teachers' classroom instructional skills and Tables 4.11 and 4.12 house findings on teachers' assessment strategies. A cursory look at Tables 4.9 and 4.10 show that teachers adopt instructional skills and strategies such as promoting discussions about subject matter, helping students to think critically, using variety of instructional strategies to meet the diverse learning needs of students and using appropriate questioning techniques to involve and monitor students' learning in the classroom. This conclusion was arrived at based on the mean of means scores recorded for the two tables, that is mean of means score of 4.28 and a standard deviation of 0.70 for Table 4.9 and mean of means score of 4.15 and a standard deviation of 1.07 for Table 4.10.

Inferring from the findings in Tables 4.9 and 4.10, one can say that when teachers are knowledgeable, experience, confident and competent in their field of study, they are able to deliver well. These characteristics according Rhaman *et al* (2011) have effective influence on the teaching and learning process. General assertions from literature (Keiser & Shen, 2000; Nortey, 2010; Sharp. 2009; Short, 1994) are that when teachers are knowledgeable, experience and competent, they are empowered to work effectively and efficiently in the classroom. The ramification of this is that, when teachers are knowledgeable, they are able to adopt instructional strategies appropriate for promoting students' learning and higher academic achievement. Again, when teachers sound pedagogical knowledge, they are able to use the appropriate methods, put in place checks and balances that promote and monitor students' learning progress in the classroom. These characteristics are what reinforce

teachers to deliver in the classroom for higher students gains. From the results in Tables 4.9 and 4.10, one can conclude that teachers in the district are effective with regard to instructional skills and strategies.

Finally, the findings in Table 4.11 reveal that teachers were quite good in their assessment strategies. Except that teachers did little in providing appropriate challenges for every capable student in their classroom. In general, teachers performed quite a bit in their classroom assessment strategies (mean of means score = 4.21, standard deviation = 0.81).

However, the observation results on teachers' assessment strategies revealed that teachers were generally performed satisfactory in the use of assessment to promote students' learning. Table 4.12 recorded a mean of means score of 3.78 and a standard deviation of 1.12 indicating that teachers were satisfactory in the use assessment strategies.

The findings in Table 4.12 show that teachers need more learning opportunities in the area of assessment strategies to help boost their competence in that regard. Appropriate assessment tools play a significant role in monitoring students' progress in learning. Also, the skillful use of well-chosen questions to engage and challenge learners, and to consolidate understanding, is an important feature of effective teaching (Riggall, 2013). An implication for this is that when teachers are provided with the needed training and professional support, it will go a long way in enhancing their professional competence and skills in the classroom thereby promoting students' learning and understanding of concepts taught in the classroom.

Having observed teachers teach in the classrooms and also analyzed their questionnaire responses, they were further quizzed to describe how the CPD programmes they have

participated in influenced their students' learning outcomes. In their responses, all eight teachers expressed positive views that the knowledge and experiences gained at these CPD programmes have positive influence on their students' learning outcomes. Here is what some of them said;

Teacher 6: I think now my students can understand me more whenever I am teaching them because I present concepts to them in a step by step manner, I encourage them to ask questions for clarification. The workshop has also taught me to always adopt student centered approach to teaching with very beneficial to students learning performance.

Teacher 1: positively.... since am able to explain myself very well to the students, it has also helped them in their understanding of my subject

Teacher 8: erm.... positively... because the knowledge and new ideas that I learn from these workshops are directly and indirectly transferred to the students. Using the student-centered approach and appropriate teaching and learning materials to deliver lessons are all positive ways that go to improve students' learning outcomes.

The teachers' responses and the skills demonstrated (Tables 4.5 to 4.12) and the interview comments showed that they have some good qualities and as such influence their teachings in a positive way. Secondly, teachers' exhibition of good classroom instructional practices can be linked to Casas (2002) assertion that people do not act because they believe that their behavior will produce a desired goal, but they act because they have been reinforced for behaving in a certain manner. Because teachers have been positively reinforced through professional development programmes (see Table 4.4), they have gained more knowledge, skills and modern strategies of classroom management thereby changing their attitudes and

influencing the way they teach and manage their classrooms. This seems to suggest a linkage between teacher quality and effective teaching.

A Pearson product-moment correlation was run to determine the relationship between teacher quality and effective teaching (see Table 4.13). The results revealed a strong, positive correlation between teacher quality and effective teaching which is statistically significant ($r = .787, n = 93, p < 0.01$). This implies that teacher quality was significantly influenced by their professional development knowledge and has a direct bearing on teachers' attitude towards classroom instruction, thereby influencing their classroom practices positively.

Table 4.13: Correlations Output between Effective Teaching and Teacher Quality

Correlations			
		Effective Teaching	Teacher Quality
Effective Teaching	Pearson Correlation	1	.787**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	2209.032	2034.677
	Covariance	24.011	22.116
	N	93	93
	Pearson Correlation	.787**	1
Teacher Quality	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	2034.677	3025.892
	Covariance	22.116	32.890
	N	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

4.3 Summary of Chapter

A comparison of the findings (triangulation) reveals that a good number of the respondents understand professional development (PD) to mean any planned continuous in-service training offered to teachers to improve teaching and learning. The study showed that

teachers derive lots of benefits including improved professional characteristics, enhanced teaching skills, effective and efficient classroom climate from CPD programmes which have influence in their classroom teachings in many ways (see Tables 4.5 to 4.12). Again, it came to light that factors such as enhancing one's knowledge, upgrading of teaching skills, being efficient and effective in one's subject and provision of more learning opportunities motivate them to partake in professional development programmes. These accounted for teachers' decision to participate in CPD programmes. It was discovered also through observation that teachers' knowledge of PD/CPD are relevant to their classroom instructional practices and has a positive influence on their classroom practices, confidence and esteem thereby having positive rippling effects on their students' learning (see Tables 4.5 to 4.12). This resulted in a positive strong relationship between teacher quality and effective teaching.

The findings as discussed in this chapter have affirmed what already exist in literature (Akinfe, *et al*, 2012; Bolam & weindling, 2006; Guskey, 1989 & 2002; VSO, 2002) that teachers' continuous professional development is a major contributor to teachers' classroom practices in the KNWD and Ghana as a whole.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of major findings of the study and conclusions drawn from these findings. The section also contains some recommendations and suggestions for future research.

5.1 Summary of Findings

This aspect of the study presents the summary of the findings on;

- ❖ Teachers' Understanding of the Concept Professional Development/Continuous Professional Development
- ❖ Benefits of Continuous Professional Development Programmes to the Teacher
- ❖ Motivation behind Teachers' Decision to Participate in Continuous Professional Development Programmes
- ❖ Teacher Quality and Effective Teaching

5.1.1 Teachers' Understanding of the Concept Professional Development/Continuous Professional Development

The main findings of the research on this theme include;

- i. Findings from the questionnaire and interview revealed that a significant number of the teachers understand professional development to mean any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms.

- ii. Relating this finding on teachers' knowledge of the concept of professional development to what happened in their classrooms revealed that teachers adopt and use teaching skills and strategies that promote students' learning and understanding. This is due to the knowledge and experiences acquire from participating in the professional development programmes organized for them.
- iii. Findings from the questionnaire also show that the teachers understand other issues like scope and composition of continuous professional development programmes; their role in planning professional development programmes and promotions and professional development.

5.1.2 Benefits of Continuous Professional Development Programmes to the Teacher

- i. Questionnaire and interview results confirmed that when teachers participate in professional development programmes, they acquire new knowledge, improved competency, enhanced teaching skills, gain confidence in one self and become effective in one's subject area. These benefits serve as reinforcement for attitudinal change resulting in adoption of teaching strategies that shape students' learning and academic achievement.

5.1.3 Motivation behind Teachers' Decision to Participate in Continuous Professional Development Programmes

- i. Findings from the interview suggest that teachers are motivated to participate in professional development programmes with the hope of achieving practical experiences that can address their day-to-day challenges in their classrooms.
- ii. Inferring from the interview findings, teachers are motivated to partake in continuous professional development because of the belief that it will expand

their knowledge and skills, contribute to their growth and enhance their effectiveness with students.

5.1.4 Teacher Quality and Effective Teaching

- i. Comparing the questionnaire findings with the observation findings and part of the interview showed that teachers' experiences and knowledge of continuous professional development have a positive influence on their students' academic achievements.
- ii. Findings from the observation reveal that teachers need more learning opportunities in the area of assessment to make up for their deficit (see Table 4.12).
- iii. Finally, findings from this study revealed a strong positive statistically significant correlation between teacher quality and effective teaching which resulted in positive influence on teachers' classroom practices (see Table 4.13).

5.2 Conclusions

Based on the findings of this study, it can be concluded that 91.4% of teachers in the Kassena/Nankana West District have appreciable understanding of the concept of professional development (see Table 4.3). It can also be concluded that teachers in the district derive a lot of benefits including gaining self-efficacy beliefs, improved competency and efficiency and acquisition of new knowledge from continuous professional development programmes (see Table 4.4). Also teachers want to be consulted whenever the education directorate is planning continuous programmes/activities for them and that these programmes should be used as teacher promotion criteria in the GES (see Table 4.3).

Again, based on the findings of this study, conclusions can be drawn that teachers are motivated to participate in professional development programmes because of the belief that it will expand their knowledge and skills, contribute to their growth and enhance their effectiveness with students.

Based on the findings of this study, the researcher wish to conclude that there is a statistically significant positive relationship between teacher quality and effective teaching thereby having a positive influence on teachers' classroom practices (see Table 4.13).

5.3 Recommendations

The following recommendations are made based on the findings and conclusions of the study in improving teacher professional development programmes and activities in the Kassena/Nankana West District (KNWD) and the country at large. It is recommended that;

1. Since continuous professional development programmes have a lot of benefits to the teacher and by extension the student, the KNWD education directorate in collaboration with the district assembly, teachers and school heads should plan and develop comprehensive teacher development programmes for teachers in the district, well documented, indicating dates and time for implementation and feedback procedures. This document I think should be circulated to all teachers concerned at the beginning of the academic year. This will enable the teachers to prepare in advance and be able to give meaningful contributions during the programmes.
2. Professional development programmes that are being planned for teachers should be seen as addressing teachers' current classroom need. This way, it will attract teachers' interest and cooperation.

3. When organizing professional development programmes for teachers in the district, attention should be paid to areas such as assessment because that is where teachers fall short in their classroom practices.

5.4 Suggestions for Further Research

This study adopted the mixed methods concurrent triangulation approach which comes with the challenge of comparing the results of two analyses using data of different forms. The researcher wish to suggest that future researchers should replicate similar study using other forms of mixed method approach to see if similar findings could be arrived at.

Even though this study has revealed that teacher quality to a large extent leads to higher students' academic achievement, Akinfe, *et al* (2012) believe the teacher as a person is not the sole determinant of positive students' academic outcome because according to them othare factors such as socio-economic status, parental education, school environment etc have significant effects in the academic performance of students. The researcher wish to suggest that future researchers should research into how factors such as socio-economic status, parental education, school environment affect or improve students' academic performance.

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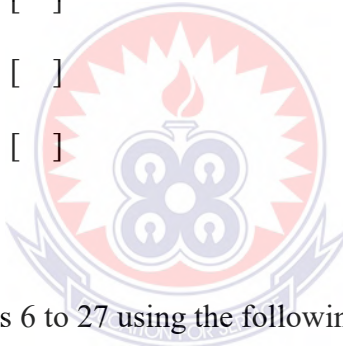
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3. Cert. 'A' 4 year []
4. Cert. 'A' 3 year []
5. Diploma []
6. First degree []
7. Masters degree []
8. Others (please specify).....

5) How often do you attend continuous professional development programmes?

1. Rarely []
2. Occasionally []
3. Often []
4. Very Often []
5. Most of the times []



SECTION B

Instruction: Please rate items 6 to 27 using the following scale: 1 = Strongly Disagree;

2 = Disagree; 3 = Uncertain; 4 = Agree; 5 = Strongly Agree; by

ticking [√] in the appropriate response box the statement that best reflect your opinion on the concept of PD and CPD.

To what extent do you agree to the following statements?

I - Understanding PD/CPD

No	Understanding professional development and continuous professional development	Responses				
		1	2	3	4	5
6	Professional development refers to any planned continuous in-service training offered to teachers to improve teaching and learning methods in schools and classrooms.					
7	Continuing professional development encompasses all formal and informal learning that enables individuals to improve their own practice.					
8	Continuous professional development programmes should be used as teacher promotion criteria.					
9	Professional development programmes include pre-service training and on the job training (INSET).					
10	Teachers are consulted when planning continuous professional development activities for them.					

II - Benefits of CPD Programmes/Activities

No.	Benefits of continuous professional development programmes to the teacher	Response				
		1	2	3	4	5
11	Continuous professional development programmes enable me to gain self-efficacy beliefs which give me the confidence in whatever I am doing					
12	I attend continuous professional development programmes because I believe that it will expand my knowledge and skills, contribute to my growth and enhance my effectiveness with students					
13	I attend continuous professional development programmes to improve my competency and efficiency as a classroom teacher.					
14	I attend continuous professional development programmes because of possible acquisition of new knowledge and skills.					
15	I attend continuous professional development programmes because I believe it would enhance my personality and prestige as a teacher in the society.					

III - Teacher Quality

No.	Planning and Preparedness	Response				
		1	2	3	4	5
16	I plan and prepare effective lessons with specific, measurable, achievable, realistic and time bound (SMART) objectives (quality teaching).					
17	I select appropriate teaching methods relevant to the course content.					
18	I use appropriate teaching and learning materials for my teachings.					
19	I select appropriate teaching contents that support standards, topic and age of students.					
20	My instructional strategies are always in line with the lesson objectives.					

	Classroom Management Skills	Response				
		1	2	3	4	5
21	I believe I can do much to foster students' creativity in my classroom					
22	I am able to control disruptive behaviour in the classroom.					
23	I am able to establish classroom management system that is favourable for each individual student.					
24	I can keep a few problem students from disrupting an entire lesson.					
25	I am able to create a favourable learning atmosphere and maintain a positive rapport with students in the classroom.					

IV- Effective Teaching

	Instructional Skills	Response				
		1	2	3	4	5
26	I promote discussions about subject matter, team work and sharing of ideas among my students					
27	I can do much to help my students think critically					
28	I use variety of instructional strategies to work with total groups, small groups and individuals					
29	I use variety of instructional strategies to meet the diverse learning needs of students					
30	I use appropriate questioning techniques to involve students in lessons and also to monitor students' progress in my lessons (teacher performance).					

Instruction: Please respond by ticking [√] in the appropriate response box using the scale

1 = Nothing 2 = Very Little 3 = Little 4 = Quite A Bit 5 = A Great Deal

	Assessment Strategies	Response				
		1	2	3	4	5
31	How well can you implement alternative strategies in your classroom?					
32	How well can you provide appropriate challenges for every capable student in your classroom?					
33	How well can you provide alternative explanation/example when students are confused?					
34	How well can you use a variety of assessment strategies to improve students' understanding of concepts and ideas?					
35	How well can you gauge students' comprehension of what you have taught?					

Thank you for having taken time to complete this questionnaire. I am most grateful!!!



APPENDIX B

**UNIVERSITY OF EDUCATION, WINNEBA
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF BASIC EDUCATION**

Observation Checklist for Teachers’ Instructional Practices

Teachers’ understanding Continuous Professional Development and Its relevance to their Classroom Practices in the Kassena/Nankana West District.

Name of School.....Grade:.....Subject Area.....Date:.....

Part I: Instructional Activities

Please rate teacher’s level of evidence of implementation of the instructional activities below by ticking [√] in the appropriate response box next to each item using the scale below;



Evidence of Implementation

- 1= No
- 2 = Little
- 3 = Sometimes
- 4 = Often
- 5 = Most Often

I- Teacher Quality

No	Planning and Preparedness	Response				
		1	2	3	4	5
1	Teacher plans and prepares effective lessons with specific, measurable, achievable, realistic and time bound (SMART) objectives					
2	Teacher selects appropriate teaching methods relevant to the course content.					
3	Teacher uses appropriate teaching and learning materials for his/her teachings.					
4	Teacher selects appropriate teaching contents that support standards, topic and age of students.					
5	Teacher’s instructional strategies are always in line with the lesson objectives.					

Please rate teacher's strategies by ticking [√] in the appropriate response box next to each item using the scale below

1= Very Poor 2 = Poor 3 = Satisfactory 4 = Good 5 = Very Good

No	Classroom Management Skills	Response				
		1	2	3	4	5
6	Teacher does much to foster students' creativity in his/her classroom					
7	Teacher is able to control disruptive behaviour in the classroom					
8	Teacher is able to establish classroom management system that is favourable for each individual student					
9	Teacher keeps a few problem students from disrupting an entire lesson					
10	Teacher is able to create a favourable learning atmosphere and maintain a positive rapport with students in the classroom.					

II-Effective Teaching

No	Instructional Skills	Response				
		1	2	3	4	5
11	Teacher promotes discussions about subject matter, team work and sharing of ideas among my students					
12	Teacher dose much to help my students think critically					
13	Teacher uses variety of instructional strategies to work with total groups, small groups and individuals					
14	Teacher uses variety of instructional strategies to meet the diverse learning needs of students					
15	Teacher uses appropriate questioning techniques to involve students in lessons and also to monitor students progress in his/her lessons					

No	Assessment	Response				
		1	2	3	4	5
16	Teacher is able to implement alternative strategies in the classroom					
17	Teacher is able to provide appropriate challenges for every capable student in the classroom					
18	Teacher is able to provide alternative explanation/example when students are confused					
19	Teacher is able to use a variety of assessment strategies to improve students' understanding of concepts and ideas					
20	Teacher is able to gauge students' comprehension of what he/she has taught					

APPENDIX C

UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATIONAL STUDIES

DEPARTMENT OF BASIC EDUCATION

Interview Guide for Teachers

This interview is to solicit your views and opinions on the motivation behind teachers' decision to partake in CPD programmes and the influence of these programmes on their classroom practices in the Kassena/Nankana West District. Your views will be used for this research purpose only and will remain confidential. The interview shall last for about 7 minutes. I seek your permission to record your responses for later transcription. You may ask for clarification if you are in doubt.

Part I: Understanding Continuous Professional Development

1. Can you explain/describe what professional development is?
2. What types of continuous professional developments opportunities have you undertaken since you started teaching?
3. Are you consulted for inputs anytime the education directorate is planning CPD programmes for you? Yes [] / No []

Part II: Benefits of Continuous Professional Development to Teachers

4. Do you believe that these continuous professional development programmes have benefited you in any way? Yes [] / No []
 - b) Can you mention three of such benefits.....
5. Has the continuous professional development programmes improved your prestige as a teacher in the society? Yes [] / No []
 - b) Can you explain further?.....

Part III: Motivation for Partaking in CPD Programmes/Activities

6. From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

7. Apart from these factors, what other motivation do you need in this regard?
8. Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?
9. Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.
10. In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Part IV: Influence of Continuous Professional Development Programmes on Teachers' Classroom Practices

11. What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?
12. Can you describe briefly how the CPD programmes have influenced your professional development?
13. How has the CPD programmes influenced your students' learning outcomes?
14. How has the CPD programmes affected your self-confidence/self esteem?

Thank You, I am highly grateful!!!

APPENDIX D

Introductory Letter from the Department of Basic Education



UNIVERSITY OF EDUCATION, WINNEBA
DEPARTMENT OF BASIC EDUCATION



Our: DDE/M.PHIL/GET/VEH/2020
Your Ref:

Date: August 27, 2021

The District Director
Basic Education Services
Kassena-Nankana West District
P. O. Box 49
Paga-Usher West Region

Dear Sir/Madam,

LETTER OF INTRODUCTION - JONATHAN WALTER ADDAH

The above-named is an M.Phil student in the Department of Basic Education of University of Education, Winneba.

As part of his studies, he will be undertaking a research survey. He therefore wishes to request some information from your office to enable him work on his research.

I would be very grateful if he is given your attention and consideration.

Counting on your cooperation,

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Asonaba Kofi Addison'.

ASONABA KOFI ADDISON (PHD)
(Ag. Head of Department)

APPENDIX E

Introductory Letter from the KNW Education Directorate

GHANA EDUCATION SERVICE

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

Our Ref: GES/KNWD/121/Vol.1/70

Your Ref:

Tel. No.



REPUBLIC OF GHANA

KASENA-NANKANA WEST
DISTRICT EDUCATION OFFICE
P. O. BOX 46
PAGA

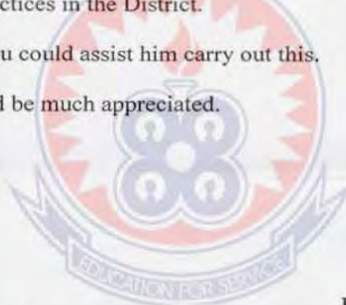
21st May, 2015.

LETTER OF INTRODUCTION JONATHAN WALTER ADDAH

I wish introduce to you Jonathan Walter Addah a student of the University of Education, Winneba who is conducting a survey on "Teachers' Continous Professional Development and its impact on their classroom practices in the District.

I would be most grateful if you could assist him carry out this.

Your usual cooperation would be much appreciated.



THOMAS WUDUNU
D/D (F&A)
For: - DISTRICT DIRECTOR

ALL HEADTEACHER/MASTER
BASIC SCHOOLS
K.N.W.D

Cc: - Jonathan Walter Addah
C/o E/A J.H.S
Box 46, Paga

APPENDIX F

Interview Responses

Teacher 1

Researcher: Can you explain/describe what professional development is?

Teacher 1: *professional development is the training teachers go through to become professional teachers.*

Researcher: What types of professional development opportunities have you undertaken since you started teaching?

Teacher 1: *types?...hmm... I have attended workshops, err and refreshers courses*

Researcher: Are you consulted any time the education directorate is planning CPD programmes for you?

Teacher 1: *No.... I have never been consulted; I only get a circular inviting me to come for a workshop that's all.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 1: *yes...yes.. I think I have benefited a lot from the programmes I have attended so far.*

Researcher: Can you mention three of such benefits

Teacher 1: *oooo..... I believe it has increased my knowledge, it has improved my experience and my teaching methods too have been enhanced.*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 1: *I don't know what you mean by improved my prestige as a teacher, but I think there is some level of respect in the work I do from the society.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 1: *ooo....to enhance your teaching abilities and then to also enhance your knowledge.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 1: *well ... eerr...I think the authorities should organize more in-service trainings for us always so that we can be abreast with current methods and strategies of teaching.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 1: *yes... now that when you ar, you apply for promotion they normally ask you to bring along your certificates of workshops and other things, aha, so when you attend workshop, it enriches your CV.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 1: *no, not often. errmm.. all the workshops that I attended, I was given on one occasion a certificate but the others nothing of that sort.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 1: *hmm, they have to eerrm...hmm...entice teachers like especially in the area of eerr ... awarding certificates so that you can also keep those certificates for future use.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 1: *eerrm... it has helped in ways such as eerr... for example it has helped me with the content of my subject, and then in the area of teacher-pupil relationships too, it has helped and then preparation of teaching and learning materials too.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development?

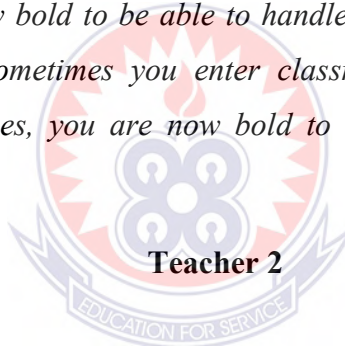
Teacher 1: *hmm... as I said that's... if I had...if I get the questions right...it has helped in a way that you are now able to handle your subject well, when you go in to teach, you know when and how to use your teaching and learning materials, you how to handle classroom, the classroom, the different behaviours in the classroom, it has also helped in that area too.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 1: *positively.... since am able to explain myself very well to the students, it has also helped them in their understanding of my subject.*

Researcher: How has the CPD programmes affected your self-confidence/self esteem?

Teacher 1: *hmm.... Am now bold to be able to handle my subject very well compared to the previous times when sometimes you enter classroom and you start fidgeting but because of these programmes, you are now bold to take up your subject and teach it confidently.*



Teacher 2

Researcher: Can you explain/describe what professional development is?

Teacher 2: *eerrmm... I think professional development is part of the in-service trainings and the workshops that the office normally organizes for us.*

Researcher: What types of professional development opportunities have you undertaken since you started teaching?

Teacher 2: *I have undertaken eerrm... in-service training, workshops, seminars and even sandwich courses.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 2: *No... I can't remember that I was consulted for something like that.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 2: yes... yes... *I believe.*

Researcher: Can you mention three of such benefits?

Teacher 2: *eerrmmm..... I have benefited from the resource persons they brought to train us in many ways. For instance, my teaching skills has improved, my communication skills too has improved and errmm.. also,...eerrm my classroom control too is now good*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 2: *yes.. eerrmm.. in one of the workshops on leadership, we were taught how to related with the community members around the school, so I think this has helped me in a way.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 2: *through... continuous professional development... eerrm... courses...erm.. like sandwich courses, when you complete eerrmm...maybe you can be upgraded and that will bring about increment in your salary and even through those courses you get to know the subject matter and the method of delivering.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 2: *if more workshops and seminars are organized for teachers in the district. I believe this will increase our self confidence and will serve as another motivating factor.*

Researcher: Do you believe that the CPD programmes that you attend can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 2: *promotion eerrmm prospects...yes... after... maybe after completing your course you may be promoted from erm lets assume if you are erm supt. 1, you can be promoted to....or supt. 2 to supt. 1.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 2: *yes... yes...*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 2: *eerr.... First... the teachers should be involved in the planning of the programmes. The programmes should be made very attractive, eerrmm... in addressing teachers' current classroom needs and also give certificates at the end of attending these programmes.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 2: *eerrmm... when you undertake those kind of errm... courses, the actual fact it... you learn the methods, the method of delivery and then sometimes the subject matter that will enable you to deliver your lessons appropriately.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 2: *yeah...through the course too...err your professional development, for you to acquire those developments maybe through the course eerr....you can gain confidence and confidence can also be part of your professional development.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 2: *yeah... when the teacher... you know... err...improving students learning is all about when the teacher knows his or wha...wha... if the teacher knows his or know what he is about to teach or know what he is teaching, so when the teacher also err... indulge in*

those courses that will enable the teacher to know... to have the knowledge that will help him to influence the knowledge to the students.

Researcher: How has the CPD programmes affected your self-confidence/self esteem?

Teacher 2: *positively.....yes... you know self confidence.... in teaching profession is all about when you know the subject matter and how to deliver it. When you know the subject matter and how to deliver it, you have that confidence.*

Teacher 3

Researcher: Can you explain/describe what professional development is?

Teacher 3: *eerrmm... I think eerrmm ... any training like in-service training that is designed to help teachers improve in their profession is professional development.*

Researcher: What types of professional development opportunities have you undertaken since you started teaching?

Teacher 3: *yeah well... am new in the system, just one year, but I have been to a number of workshops.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 3: *No... no... there was nothing consultation.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 3: *yes... yes.. a lot of benefits*

Researcher: Can you mention three of such benefits?

Teacher 3: *yes... as I said you benefit eerr... like learning new and improved teaching methods, eerrmm... you learn something new to add to your knowledge and you network as well.*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 3: *yes... my confidence in the society has gone and I have confidence whatever I am doing.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 3: *is to...is to upgrade their skills in teaching and handling of students in the classroom.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 3: *when I get to attend in-service trainings and workshops twice in a month or even more, I will be happy.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 3: *yes....because eerr you know, you... you... for instance, through this eerr...development programmes you can upgrade yourself to... up to what do you call it...the masters' degree or whatever level you feel like doing, so it will helve,... it will help you, your influencing I mean in the interacting in the classroom and event err... among your colleagues... among your colleagues, it will give you a ...a...a big boost in your life. So I think it has a positive influence on my promotion prospects in GES.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 3: *certificates no! souvenirs no! no, it's like I attended about three (3) or so but I have not received anything like that. Well... I don't know whether it's from the organizers or from the teachers themselves, I don't know for a fact, but for me, I think it is from the organizers....well...because am new in the system, I went with colleagues and they didn't so I also feel the system is like that, that is why I didn't ask.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 3: *yeah....by...by...by...by giving...giving err...err...what do you call it, a chance or giving opportunities to... to... to... to get err what do I say?... giving chances to be free during that time for instance, those courses and programmes should organized and taken during the...the...the holidays so that teachers can fully participate in those courses but if it is during the.. the teaching hours, it will be very difficult for teachers to it combining what do you call it.... Both errr learning and work, it is not easy.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 3: *yeah... for me ... it has improved mine a lot, because I.... through those eerr programmes, I have gained a lot of experience, err....a lot of skills, classroom management skills and then err.... with interactions with my colleagues, those who have been in the system before me, I have learned a lot from them, so it has a very good positive influence on me.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 3: *yeah... I have...have...developed a...a... high morale for myself in the profession also as I have said earlier, I am able to manage and handle my students in a professional way in the classroom.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 3: *yeah... I ... I I learn from colleagues how they handle classroom situations whenever we meet at these programmes. So whenever I am teaching and I encounter err... any problem, I easily transfer that. Also because of the new things I learn from these programmes on how teach certain topics which I also teach my students, it has then to improve upon their learning and performance.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 3: *hhmm... for me I don't think it has affected me eerr.....negatively, no! I will say positively...yeah! Positively because for me I have a strong self-esteem and I always believe in myself that I can do it and I believe that these programmes have increased myself confidence and self-esteem.*

Teacher 4

Researcher: Can you explain/describe what professional development is?

Teacher 4: *I think professional development is the continuous training that is given to teachers to improve their teaching skills in the classrooms.*

Researcher: What types of professional development opportunities have you undertaken since you started teaching?

Teacher 4: *eerrm.... I have... you know we are just new trained teachers so I have the opportunity to attend a workshop that was organized by....organized for eerrmm....counseling...it's about, based on counseling, how to handle needy children, children with disabilities and other things.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 4: *No... I was not consulted for this workshop that I attended. my head master brought me the circular that I will be attending a workshop on this date, at this place.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 4: *yes... you benefit a lot from these workshops. For example you learn how handle students with special needs, it broadens your knowledge and teaching skills, it also makes you competent in the classroom.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers' to participate in CPD programmes?

Teacher 4: *in fact they are always important because they will... they will..... they will help the teacher to be abreast with the modern trend of the various topics and they help you to also at least know how to handle the errm... technical subject areas and other things. That is for them to upgrade their knowledge so that they will be able to handle their subject area very well*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 4: *ookey... I need more opportunities to improve upon my teaching skills. So if workshops and seminars could be organized frequently, say twice of thrice in a term, I will be ok.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 4: *Yes...yeah...but one of the problem the reason why most at times we don't realize it importance is that they don't follow up to monitor to make that sure what we have gone there to learn, we put it into use. That is the major problem. Aside that I believe it can enhance my promotion prospects positively.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 4: *Yes... they do give certificates depending on the...the type of workshop you have attended.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 4: *they will be encouraged by giving them their transport, food and other things to motivate them. I think that will also motivate the teachers to attend such workshops and other things.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 4: *the influence is enormous in the sense that it will help you to upgrade your knowledge, your experience and the techniques on how to handle certain subject areas.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 4: *yes... errm.. I could remember that errm...I once went for ICT workshop and they have taken through how to handle the children, how to present the subject to them, how to let them know the various parts of the computer ...so the understanding will become easier for them.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 4: *yes... of course.... Errm... you see we use... when we go for workshops... we always... they always bring specialist who take you through how to handle a particular subject or topic. So by doing so when come and then at least you try to it the classroom, you will see that the children are more involved, which is now student centered. You see that the children will be answering questions and also asking a lot of questions which enhance their learning greatly.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 4: *it has helped me to improve on how to handle my classroom, how to teach my subject and also how answer questions from students. So I believe it has boosted my confidence and esteem as a classroom teacher greatly.*

Teacher 5

Researcher: Can you explain/describe what professional development is?

Teacher 5: *professional development is eerrmm.... errmm... include in-service training and workshops which is given to teachers to make them effective in their teachings.*

Researcher: What types of professional development opportunities have you undertaken since you started teacher?

Teacher 5: *I have attended workshops, seminars both within the district and outside the district.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 5: *No... never!.... I have never been consulted for anything on continuous professional development*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 5: *oohh... yes... yes...*

Researcher: Can you mention three of such benefits?.....

Teacher 5: *eerrmm... the first one is, it improves your competency, increase your knowledge and makes you confidence in the classroom during lessons.*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 5: *yes... somehow*

Researcher; Can you explain further?

Teacher 5: *you see.... Even though these programmes improve your skills and make you confident. The money involved is very small, so sometimes when a family member comes to you for help when he/she has a problem and you are able to help then they begin to think differently about. Apart from that it's ok.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 5: *to improve their knowledge and competence as teachers in their subject areas. Also provision of teaching and learning materials for them to use after these workshops are some of the factors.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 5: *eerrmmm..... teachers should be given opportunities and avenues to learn more frequently to improve their efficiency*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 5: *yes... yes because sometimes after training at the college, these workshops present another opportunity for you to learn something new. These new things always keep you informed and whenever you attend an interview for promotion, it puts you ahead of your colleagues. So I see it to have a positive influence on teachers' promotion prospects.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 5: *yes... I think it started in the 2014/2015 academic year, anytime teachers go for any workshop or refresher courses, they are given certificates. I remember the few workshops that I attended this academic year, I was given certificates.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 5: *by involving the teachers in the planning of the workshops. I also think monitoring is also another encouraging factor, that is coming back to see if what you have taken the teacher through is what they are implementing in the classrooms. Again, by giving them attractive and enticing welfare package, sometimes you will see someone coming from Chiana to Paga to attend a workshop and at the end he is given GHc5.00 at transport allowance; this is not encouraging at all. Most important is, the organizers should always get the right resource persons that are qualified and competent to facilitate over the workshops.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 5: *it has helped in improving my delivery skills and strategies. It has also helped me to improve in the area of methodology too thereby making delivery in the classroom very simple.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 5: *it has improved my leadership skills as a teacher, it has improved my classroom management skills, how to relate with the students and my colleague teachers and also it has change perception about certain things in the GES.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 5: *my students benefit a lot from me because the new things that I learn from the workshops are imparted to them which go a long way to improve their learning. Also, when you teach a child well, I think the child will always do well by performing better.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 5: *yes... positively. It has improved how I respond to questions from the students, how I speak in public and the way I go about my work as a teacher.*

Teacher 6

Researcher: Can you explain/describe what professional development is?

Teacher 6: *errm... professional development can be described as any planned programme or activity that is meant to enhance teachers competency in the classroom.*

Researcher: What types of professional development opportunities have you undertaken since you started teacher?

Teacher 6: *I attended only one workshop and the programme was on the difficulties that teachers normally encounter as far as teaching the various subjects was concerned.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 6: *yes... once, I remember they ever brought a circular that we should give challenging topics in our subjects to the office. That circular was from the training officer at the education office.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 6: *yes....*

Researcher: Can you mention three of these benefits?

Teacher 6: *it makes you confident when you are teaching the students; you learn new things that add to your knowledge and you also new methods that improve your teachings.*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 6: *to some extent yes.... You know how some teachers behave in the community is not good, so it makes it hard for people to respect you sometimes. But at some of these programmes you are taught how to live respectably in the society, so for me it has helped me to some extent.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 6: *actually it should be errm... you know some of us we are from far away, we teach at villages, so when they normally call us for in-service training or what do you call it, workshops, we need to ride and come there and this riding involves petrol and other things, so it costs out of the money that we get petrol, so when we come for a workshop and there is nothing like that (money,) then the next time they call for a workshop I will not be motivated to attend because what I spent in coming to the workshop, I did not get it back.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 6: *when teachers are involved in the planning of in-service trainings and workshops. They should also be given more opportunities to learn new things that come out daily through workshops and seminars.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 6: *yes... actually I believe it can enhance my promotion positively, because the last one that I attended exposed me to many new things and this has added to my experience, as the saying “experience is the best teacher” so I believe it can enhance my promotion.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 6: *the last workshop that I attended, I was not given any certificate. That workshop was my first and last workshop I attended since I started teaching two years ago and I was not given anything like that.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 6: *yeah... to me I will say that when you attend workshops, you need to be given ‘petrol’, we need to be given lunch and errm snacks so that at the end of the day, we gain knowledge and at the same time what we have removed from our pockets is not lost.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 6: *it has improved my classroom teaching skills greatly because we are taught how to handle certain topics and the kind method to use to teach some topics are considered difficult and this has helped me a lot in the classroom. for instance when you look at the last workshop that I attended, I was finding difficult to teach “magic square” but since I attended that programmes, I am now able to teach it. So it is good for teachers.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

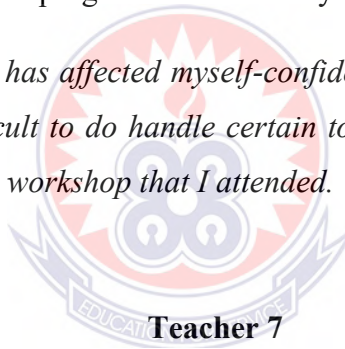
Teacher 6: *it has helped grow professionally, like in terms of how to present myself before the students, how to relate with the students and other teachers and generally how to conduct my duties in the school environment.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 6: *I think now my students can understand me more whenever I am teaching them because I present concepts to them in a step by step manner, I encourage them to ask questions for clarification. The workshop has also taught me to always adopt student centered approach to teaching with very beneficial to students learning performance.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 6: *yes... errm ... it has affected myself-confidence and esteem positively because at first I was finding it difficult to do handle certain topics but now am very confident in teaching those topics due the workshop that I attended.*



Teacher 7

Researcher: Can you explain/describe what professional development is?

Teacher 7: *professional development can be described as any planned training that is meant to improve teachers teaching skills in the classrooms whiles on the job.*

Researcher: What types of professional development opportunities have you undertaken since you started teacher?

Teacher 7: *yeah... I have undertaken a number of workshops, in-service trainings and other activities.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 7: *yes... but not all the time.*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 7: *yes eerrmm.... Through continuous professional development programmes you gain confidence in the classroom, you new things from the resource persons and you become effective and efficient also.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers to participate in CPD programmes?

Teacher 7: *yeah.... As you know as teaching is developmental, we always go for these workshops so as to refresh our memories and also to learn something new after training college so as to be efficient and effective in the classroom.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 7: *I will be motivated when I see that there are more learning avenues for me and other teachers to boost confidence and increase efficiency in the classroom.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 7: *yes..... I believe through the workshops that I attend, I gain a lot of knowledge and experience which I transfer to students. So as I continue to improve on the performance of my students, one day I may be called for promotion at the GES office and I believe this also help.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 7: *yes...but, not all the time. It was on one occasion errmm.... I remember one NGO organized a workshop for teachers, and we were given certificates, it was there that the training officer said they are now going to be giving us certificates after every training programme. That was the only time I remember I was given a certificate after a workshop.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 7: *yeah... one, if teachers are given certificates at these programmes, secondly, teachers travel from far places to attend workshops and at the end of the day, they are given GHc 2.00 or GHc 5.00, it will not encourage or motivate them to want attend these workshops. I can remember one workshop we attended, the deputy Minister of Education was present and at the end of the programme, we were not even given water not to talk of money for fuel back home. This is not encouraging at all.... Yeah.....*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 7: *yeah....very positive.... Yeah because most of the new syllabus that came out, there are a lot of changes in there, so when you attend these workshops, you are taken through some of these changes and how to handle some challenging topics. This improves you methodology and teaching skills positively.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 7: *yeah... these workshops have promoted my personality and improve my competence and efficiency as a classroom teacher. It has taught how handle students in the classroom, how to relate with them and also in my lesson delivery.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 7: *these programmes help us to promote the students learning greatly. What we learn at these workshops is directly imparted to the students. Me for instance, even I completed college, I have never taught the topic "graph of relations" before, but after a training workshop organized for mathematics teachers, I gain new method of teaching that topic and this has benefited my students because after taking them through that topic, they can now answer question on "graph of relations". So it has a positive influence on the students learning.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 7: *my confidence as a classroom teacher has improved positively...errm ... I will say that before I find it difficult to teach some topics as mentioned earlier but now I am very confident when teaching those topics because the experience I had from the workshops that I attended. So for self-confidence and esteem, it has improved mine in a positive way.*

Teacher 8

Researcher: Can you explain/describe what professional development is?

Teacher 8: *I think professional development is any planned in-service training that is given to teachers on the field to enhance their teaching skills and methods.*

Researcher: What types of professional development opportunities have you undertaken since you started teacher?

Teacher 8: *yeah...I think after my professional training, I have attended a number of in-service training, workshops and seminars.*

Researcher: Are you consulted for inputs anytime the education directorate is planning CPD programmes for you?

Teacher 8: *No... I don't think I remember ever being consulted regarding workshop or in-service training for inputs*

Researcher: Do you believe that these continuous professional development programmes have benefited you in any way?

Teacher 8: *yes.. I think so... it has a lot of good things.*

Researcher: Can you mention three of such benefits?

Teacher 8: *first of all you learn new ideas that increase your knowledge; you learn new teaching strategies that make you competent and efficient in the classroom and eerrmm...it also makes you confident and independent in the profession*

Researcher: Has the continuous professional development programmes improved your prestige as a teacher in the society?

Teacher 8: *yes... it has me better in the society because of the ideas that are shared by experienced resource persons, some of them share their experiences with you which you learn from to enhance life in the society.. yeah... I think it has improved my prestige.*

Researcher: From your experience of professional development, what are the personal factors that motivate teachers' to participate in CPD programmes?

Teacher 8: *yeah... errmmm.... I think teachers are motivated by the fact that they will learn something new at these workshops which will improve their performance as teachers, also, to upgrade their teaching skills and to add to their knowledge.*

Researcher: Apart from these factors, what other motivation do you need in this regard?

Teacher 8: *yes... I think teachers should be given more frequent learning opportunities through workshops, seminars and in-service trainings.*

Researcher: Do you believe that the CPD programmes can influence your promotion prospects positively in the GES? YES [] / NO []. Can you please explain further?

Teacher 8: *yes... I think if teachers are given certificates after every workshop, it will add to your CV and inform the interviewing panel the number workshops and in-service training you have attended and this might give a push ahead of your peers. So I think it can help in a way.*

Researcher: Are teachers given any certificates or souvenirs at the end of partaking in CPD programmes? YES [] / NO []. Please give reasons.

Teacher 8: *No.... I don't remember being given any certificate after attending a workshop. Well....errm... I can't tell why but I think that maybe the usual thing being done in the GES or something.*

Researcher: In your own opinion, how can teachers be encouraged to take active part in CPD programmes?

Teacher 8: *errmm.....errmm..... I think teachers should be consulted when organizing workshops or any training programme for them. Also, the welfare packages should be attractive and enticing because eerrmm, the district is such that is it divided into three zones, North, West and East zones. Teachers sometimes travel long distances to attend workshops and at the end they are given GHc 5.00 as transport allowance, this is not an attractive package I think. So I think organizers should look at these areas too as well.*

Researcher: What is your opinion on the influence of the CPD programmes on your professional practices (instructional skills)?

Teacher 8: *yes.... I will say my instructional skills has improved positively because erm.. erm... I can present or deliver lessons very well to the students' understanding and also how to use questioning techniques to improve students' learning.*

Researcher: Can you describe briefly how the CPD programmes have influenced your professional development? Can you please explain further?

Teacher 8: *yeah.... I think it has taught me how to manage the classroom when teaching a particular topic, using the language that at the students' level of understanding and how related with them to promote their learning.*

Researcher: How has the CPD programmes influenced your students' learning outcomes?

Teacher 8: *errm.... positively... because the knowledge and new ideas that I learn from these workshops are directly and indirectly transferred to the students. Using the student-centered approach and appropriate teaching and learning materials to deliver lessons are all positive ways that go to improve students' learning outcomes.*

Researcher: How has the CPD programmes affected your self-confidence/self-esteem?

Teacher 8: *greatly.... I am very confident in handling any topic in mathematics with my students, am also able to explain concepts well to the students' understanding and I am able to manage my class very well. So I will say yes... these programmes have affected myself-confidence and self-esteem positively.*