

**UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE**

UNIVERSITY FOR DEVELOPMENT STUDIES

**ANALYZING THE EFFECTS OF PROFESSIONAL DEVELOPMENT PROGRAMMES  
ON THE PERFORMANCE OF TEACHERS IN THE SAGNARIGU DISTRICT**

**SULLEY REBECCA**



**MARCH, 2018**

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PERFORMANCE OF TEACHERS IN THE SAGNARIGU DISTRICT**

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MASTER OF PHILOSOPHY DEGREE IN TRAINING AND DEVELOPMENT**



**MARCH, 2018**

## DECLARATION

### Student's Declaration

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

Candidate's Signature:..... Date:.....

Name: Sulley Rebecca

### Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

Supervisor's Signature:..... Date:.....

Name: Rev. Fr. Dr. Thomas Asante



## ABSTRACT

Notwithstanding the efforts to improve the professionalism of teachers through various professional development programmes in line with both International and National Educational Policies, some teachers still do not perform satisfactorily. It is against this backdrop that this study was undertaken to analyze the effects of professional development on teachers in the Sagnarigu District. The main objective of the study was to assess the effects of professional development experience on teachers' practice with respect to their general performance in the classroom. Purposive sampling technique was used to select the ten Junior High Schools and Headteachers for the study. Simple random sampling was however used to select the individual teachers from a school for the study. A sample size of 100 teachers was used for this study. The study found that professional development programmes improved the performance of teachers and also enhanced their competency. Thematic Workshops were found to be most effective in enhancing teachers' competence. However, given the choice, most teachers would rather patronize Distance Learning Courses and Programmes. Demonstrations were the most preferred teaching method by most teachers following professional development courses. This may however be influenced by the subject and resource constraints. It is recommended that the Ghana Education Service should assess teachers' needs before organizing professional development programmes for them.



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## DEDICATION

I dedicate this work to my family for their patience, understanding and care when it mattered most.



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## ABBREVIATIONS

BECE	Basic Education Certificate Examination
GES	Ghana Education Service
ICT	Information and Communication Technology
ILO	International Labour Organization
INSET	In-service Training
LDC	Least Developed Countries
NAB	National Accreditation Board
NCTE	National Council on Tertiary Education
NDPCI	National Professional Development Centre on Inclusion
NTC	National Teachers Council
PRESET	Pre-service Training
TCMS	Teachers Competencies Measurement Scale
TLM	Teaching and Learning Materials
TPD	Teachers' Professional Development
UNESCO	United Nations Educational, Scientific and Cultural Organization



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

The Ghana Education Service places premium on teachers' professional development in recognition of the need to have teachers with up to date skills that reflect contemporary needs of the country's educational system especially at the basic school and other levels. To this end, the Ghana Education Service has various professional development programmes for teachers aimed at improving their performance. The need for professional development programmes in schools is getting more attention for teachers to be equipped with new knowledge and skills to face new challenges and reformation in education. Professional development can enhance the professionalism of teachers who can contribute to achieving the goals of the Ghana Education Service. Teachers in the Sagnarigu District are no exception when it comes to offering teachers the opportunity to participate in professional development programmes. The teachers are fortunate to have the opportunity to attend programmes organized for them every term and most teachers have benefitted from various programmes organized by the district including; in-service trainings, short professional courses, and workshops. According to the District Training Officer's Report, 2014, about twenty workshops and in service training courses were given to teachers in the various circuits to improve their professional development. Also, according to some circuit supervisors' report about ten to twenty teachers are given the chance to go for further studies to improve their profession. The primary purpose of teachers' professional development is to enable teachers to acquire new understanding and instructional skills. It focuses on creating learning environments which enable teachers to develop their effectiveness in the classroom. Giving teachers professional



development training will give them the chance to understand the latest development within their schools; whether it is the use of new methods or the use of certain teaching techniques, since the world is constantly developing. Learning to use new methods and strategies will allow teachers take on more challenging work and even higher roles within their schools.

## **1.2 Statement of the Problem**

“Good teaching is not an accident. While some teachers are more naturally gifted than others, all effective teaching is the result of study, reflection, practice, and hard work. A teacher can never know enough about how a student learns, what impedes the student’s learning, and how the teacher’s instruction can increase the student’s learning. Professional development is the only means for teachers to gain such knowledge. Whether students are high, low, or average achievers, they will learn more if their teachers regularly engage in high-quality professional development” (Mizell 2010, p.18; Brown and Aydeniz 2017, p. 83).

The Basic Education Certificate Examination results of schools in the Sagnarigu District have not seen improvement for the past four years; with overall pass rate dropping progressively from 70% to 50%. Parents of students are worried about this state of affairs which they blame on teachers. One cannot blame them as teachers take the credit when students also perform well.

The Sagnarigu District Education Office for the past three years has been organizing professional development programmes for teachers. The purpose of these programmes is to improve teachers’ performance which as a result affects students’ general performance in schools. In spite of all these efforts made to improve teachers’





performance, there are still a good number of teachers whose performance leave much to be desired; as their students are getting poor examination results. After participating in these programmes, one tends to question their relevance as beneficiary teachers either underperform or do not apply what they were taught.

### **1.3 Objectives of the Study**

The research was intended to achieve the following objectives:

- a. To identify the type of professional development programmes put in place for teachers in the Sagnarigu District.
- b. To assess the outcomes of professional development experience on teachers' practice with respect to teaching methods and use of teaching and learning materials.
- c. To determine the relevance/usefulness of professional development programmes with respect to improving the performance of teachers in the Sagnarigu District.

To ascertain the factors/reasons responsible for teachers' poor performance after attending professional development programmes.

### **1.4 Research Questions**

The study sought to answer the following questions with regard to the effects of professional development experience on teachers and the students they teach.

- i. How effective are professional development programmes for enhancing the performance of teachers?
- ii. To what extent does professional development experience affect teachers' teaching methods and use of teaching and learning materials?
- iii. To what extent does professional development experience enhance the competence level of teachers?



- iv. What contributes to the poor performance of teachers after attending professional development programmes?

### **1.5 Purpose**

The purpose of this study was to examine the effects of professional development on teachers and students with respect to performance and achievement of desired results, and the types of Professional Development Programmes teachers attend. Another focus was to critically analyze what the programmes entail. In addition, the study looked at the way Professional Development Programmes are organized and delivered and their relationship with teachers needs in the classroom and how they impact on their own performance and that of the pupils they teach.

### **1.6 Significance of the Study**

First of all the study is significant because it carefully looked at the influence professional development has on teachers' performance in the Sagnarigu District of the Northern region of Ghana. Teachers will gain from the findings and recommendations of this study as these seek to equip and empower them with requisite knowledge and skills that makes them relevant and adaptable professionals. The findings may also play a part in influencing changes in policies of the Ghana Education Service that govern teachers' professional development. The findings on the use of teaching and learning materials for teachers in Sagnarigu District may inform the District Directorate of the GES to redirect some of its resources into the provision of Teaching and Learning Materials to schools in the District. Finally, the research is important because it is expected to add to existing body of knowledge on teachers' professional development programmes in Ghana.



### **1.7 Delimitation**

The study was carried out in the Sagnarigu District of the Northern Region. The district was chosen because of consistent poor Basic Education Certification Examination results since its establishment in 2012; a situation that parents blame on teachers. It also focused on Junior High Schools within the district where teachers have consistently taught specific subjects for a three year period. The performance of students over the period in the various subjects may therefore be attributed in part or in whole to the performance of the teachers of those subjects.

### **1.8 Limitations to the study**

The researcher encountered a number of problems in the process of conducting this study. These include but not limited to (i) the short time frame within which the study was conducted, and (ii) the sample size which may not have been large enough to draw conclusive inferences. In order to manage these constraints, this research targeted Junior High School teachers only. The responses of respondents may thus not be representative of teachers in the Sagnarigu District as a whole. A study that covers both Primary and Junior High schools and even Senior High Schools may be more comprehensive and informative to providing more conclusive evidence of the effects of professional development on the performance of teachers. The effects of professional development on teaching methods and lesson delivery investigated in this study may not be conclusive enough since other teaching methods like the field trips, discussion, modelling and project method were not looked at.



## **1.9 Organization of the Study**

This study was organized into five major inter-related chapters. The first chapter deals with the background to the study. It looked at the statement of the problem, stated research objectives and raised basic research questions, significance of the study, limitations, delimitation and the organization of the study. The second chapter reviewed literature relevant to supporting the study; while the third chapter dealt with the research methodology- approach, design, data, collection procedure, population, study area, research instrument and procedure for data analysis. Chapter four consists of the analysis and discussion of the data, summary and presentation of the main findings of the study based on the objectives set to be achieved. Finally, the major outcomes of the study were summarized, conclusions drawn and recommendations given in chapter five.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter is organized around International and National Policies on Teachers' Professional Development and Core Policy Areas on Teachers' Professional Development in Ghana. It also looks at the types of teachers professional development programmes, their importance and impact on both teachers' and students' performance, effects of professional development on teachers' degree of self-efficacy, effective methods of Teachers' Professional Development and ends with the theoretical framework for evaluation teachers' performance. In this regard, the researcher critically looked at the concepts and theoretical framework related to teacher professional development. The study reviewed relevant literature on types of professional development programmes; their importance, and effects. The review included publications from books, journals, internet searches and other relevant materials recommended by similar studies. The researcher after reviewing these brought her views and arguments on what some authors have said or written concerning the problem.

#### 2.2 International policies on teachers' professional development

According to UNESCO, ILO, UNICEF, UNDP and Education International on the occasion of the World Teachers' Day (5 October 2014), it was noted that "An education system is only as good as its teachers (UNESCO, 2015). Teachers are essential to universal and quality education for all: they are central to shaping the minds and attitudes of the coming generations to deal with new global challenges and opportunities (UNESCO, 2015). Innovative, inclusive and results-focused teaching is crucial for 2015



and beyond if we are to provide the best possible opportunities for millions of children, youth and adults worldwide (UNESCO, 2015 p.3). “The challenge is more than one of numbers. The quality of teachers and teaching is also essential to good learning outcomes. This implies an education system that attracts and retains a well-trained, motivated, effective and gender-balanced teaching staff; it implies a system that supports teachers in the classroom, as well as in their continued professional development. Dissatisfaction with loss in status, low salaries, poor teaching and learning conditions, and lack of career progression or adequate professional training have driven large numbers of teachers out of the profession, sometimes after only a few years of service” (UNESCO/ILO, 2008, p. 3 in Kirk et al., 2013; p.1; Eyiah, 2013).

“Teachers, and national policies that shape the teaching profession, are critical for the provision of a good quality education, as teachers are the key facilitators of learning. They often constitute the largest share of the civil service and therefore the highest cost. Nevertheless, it is a challenge for education systems to pay adequate attention to factors affecting teacher effectiveness, such as policies on training, recruitment, deployment, management, assessment and professional development” (UNESCO, 2014 page 40).

The 1960 UNESCO Convention against Discrimination in Education is the first legally binding instrument covering extensively the right to education. It aims at eliminating discrimination in education and promotes the principles of equality of opportunities and treatment. With regards to the teachers, Article 4(d) of the Convention engages State Parties to provide training to the teaching profession without discrimination. The conditions, qualifications, rights and duties of the teaching personnel are further protected by both the ILO-UNESCO recommendation concerning the Status



of Teachers (1966) and the UNESCO Recommendation Concerning the Status of Higher-Education Teaching Personnel (1997). The Recommendation Concerning the Status of Teachers sets forth the rights and responsibilities of teachers, and international standards for their initial preparation and further education, recruitment, employment, and teaching and learning conditions (ILO/UNESCO, 1966). The Policy Framework on Pre-tertiary Teacher Professional Development and Management in Ghana, (2012) meets Ghana's commitment to international policies on teachers and the teaching profession. Specifically it reflects key provisions ILO/UNESCO guiding principles on teachers and teaching (ILO/UNESCO, 1966).

Aspects of these guiding principles which are particularly relevant to Ghana's teacher and development and management policy are as follows:

1. Policy governing entry into preparation for teaching should rest on the need to provide society with an adequate supply of teachers who possess the necessary moral, intellectual and physical qualities, and who have the required professional knowledge and skills;
2. The status of teachers should be commensurate with the needs of education as assessed in the light of educational aims and objectives; it should be recognized that the proper status of teacher and due to public regard for the profession of teaching are of major importance for the full realization of these aims and objectives;
3. Authorities and teachers should recognize the importance of In-service training (INSET) designed to secure a systematic improvement of the quality and content of education and of teaching techniques;



4. Teachers should be provided time necessary for taking part in INSET programmes;
5. Authorities, in consultation with teachers' organizations, should promote the establishment of a wide system of INSET, available free to all teachers;
6. Teachers should be given both opportunities and the incentives to participate in courses and facilities and should take full advantage of them;
7. Promotion should be based on the objective assessment of the teacher's qualifications for the new post, by reference to strictly professional criteria laid down in consultations with teachers' organization; and
8. Professional standards relating to teacher performance should be defined and maintained with the participation of teachers' organization (ILO/UNESCO, 1996, pp 21-24)

## **2.3 Core policy Areas on teachers' professional development in Ghana**

### **2.3.1 The regulatory framework**

"The 2008 Education Act calls for the establishment of the NTC. The NTC shall be responsible for providing details of a competency based teachers standards. It shall also provide a set of standards for regulating provision of INSET, and other forms of teacher development programmes such as sandwich courses and Distance learning programmes for upgrading teacher qualifications. However, the National Accreditation Board (NAB) shall be responsible for the accreditation of teacher education programmes in collaboration with the National Council for Tertiary Education" (Ministry of Education, 2013).





In operationalizing the policy, the NTC shall work with the Divisional and Directorates of the GES, Colleges of Education, accredited Universities offering Education Courses to implement the teacher professional development aspects of the policy as set out in this policy framework document (Ministry of Education, 2013).

### **2.3.2 Competency-Based Framework and Professional Standards**

The NTC in consultation with recognized teacher unions the GES, colleges of Education, the Teacher Education Universities and other relevant bodies, shall be responsible for developing detailed standards and competencies in the following areas:

- a. Professional attributes and values;
- b. Planning teaching and learning; and
- c. Observable classroom skills – classroom teaching and management; assessment of learning, feedback, recording and reporting (MOE/GES, 2012).

All teacher professional development programmes shall adopt a competency- based approach in both programme specification and assessment scheme (MOE/GES, 2012).

The provision of Pre-Service Training (PRESET), INSET and short courses for upgrading teachers' qualification shall be guided by the following standards of professional practice:

#### **2.3.2.1 Communication and Interpersonal Skills**

Teachers shall:

- i. Demonstrate instructional and social skills that would assist students to interact constructively with their peers;
- ii. Develop trusting and supportive relationships with students;



- iii. Demonstrate ability to share students' progress with parents and the school community; and
- iv. Demonstrate good command in both English and relevant Ghanaian languages (MOE/GES, 2012).

#### **2.3.2.2 Technical skills**

Teachers shall develop the ability to select, adapt and/or develop pedagogical materials to meet instructional objectives and student learning needs. Teachers shall also be expected to demonstrate adequate mastery of their teaching subject and develop skills in assessment to monitor and evaluate learning (MOE/GES, 2012).

#### **2.3.2.3 Management and leadership skills**

Teachers shall develop appropriate classroom management skill that do not dehumanize the child (e.g. the use of canning), and demonstrate willingness and ability to take on school management and leadership responsibilities (MOE/GES, 2012).

### **2.4 Teacher Development Programmes and Activities**

All teacher professional development programmes and activities shall ensure that they are:

- a. **Fit for purpose** – programmes and activities should equip teachers to meet specific demands of teaching and the management responsibilities that goes with these demand; and
- b. **Relevant to national needs** – programmes and activities should be designed to reflect the aims and objectives of pre-tertiary education in Ghana (MOE/GES, 2012).



## **2.5 What is professional development?**

Professional Development (PD) is quite simply a means of supporting people in the workplace to understand more about the environment in which they work, the job they do and how to do it better (Kumar, 2015). It is an ongoing process throughout our working lives that simply put, is the advancement of skills or expertise to succeed in a particular profession, especially through continued education (Information Resources Management Association {IRMA}, 2014). It encompasses all types of facilitated learning opportunities including credentials such as academic degrees to formal coursework, conferences and informal learning opportunities situated in practice (NAIFA, 2016).

When people use the term “professional development”, they usually mean a formal process such as a conference, seminar, or workshop; collaborative learning among members of a work team; or a course at a college or university. However, professional development can also occur in informal contexts such as discussions among work colleagues, independent reading and research, observations of a colleague’s work, or other learning from a peer (Mizzel, 2010).

## **2.6 Teachers’ Professional Development**

Teachers’ Professional Development is defined as “activities that develop an individual’s skills, knowledge, expertise and other characteristics as a teacher” (OECD, 2009, pp. 49). Learning Forward also views professional development as a comprehensive, sustained, intensive and collaborative approach to improving teachers’ and principals’ effectiveness in raising student achievement (Slabine, 2011). It is also defined as “work-related learning opportunities for practicing teachers” (Grant & Pomson, 2003 p.4). This term possesses dual connotations. It refers to:



1. The actual learning opportunities in which teachers engage (the content and context, pedagogy and purpose of specific activities); and
2. The learning that may occur when teachers participate in these activities (the transformations in their knowledge, understandings, skills and commitments). The form and content of professional development is predicated on a vision of teaching. In other words, what and how we want teachers to teach determines what and how we expect teachers to learn (Grant & Pomson, 2003).

“Good teaching is not an accident. While some teachers are more naturally gifted than others, all effective teaching is the result of study, reflection, practice, and hard work. A teacher can never know enough about how a student learns, what impedes the student’s learning, and how the teacher’s instruction can increase the student’s learning. Professional development is the only means for teachers to gain such knowledge. Whether students are high, low, or average achievers, they will learn more if their teachers regularly engage in high-quality professional development” (Brown & Ayedeniz, 2017; Mizell, 2010. p.18).

In education, the term professional development may be used in reference to a wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness (Hidden Curriculum, 2014). When the term is used in education contexts without qualification, specific examples, or additional explanation, however, it may be difficult to determine precisely what professional development is referring to.



“In practice, professional development for educators encompasses an extremely broad range of topics and formats. For example, professional development experiences may be funded by district, school, or state budgets and programmes, or they may be supported by a foundation grant or other private funding source. They may range from a one-day conference to a two-week workshop to a multi-year advanced-degree programme. They may be delivered in person or online, during the school day or outside of normal school hours, and through one-on-one interactions or in group situations. And they may be led and facilitated by educators within a school or provided by outside consultants or organizations hired by a school or district” (Khy, 2017 p.1). In short, the term “professional development” for teachers means a comprehensive, sustained and intensive approach to improving teachers’ and headteachers’ effectiveness in raising student achievement (National Staff Development Council, 2009).

The NPDCI (2008) defines teacher professional development for early childhood education as facilitated teaching and learning experiences that are transactional and designed to support the acquisition of professional knowledge, skills, and dispositions as well as the application of this knowledge in practice. The key components of teachers’ professional development include:

- (a) the characteristics and contexts of the learners (that is, the “who” of professional development, including the characteristics and contexts of the learners and the children and families they serve);
- (b) content (that is, the “what” of professional development; what professionals should know and be able to do; generally defined by professional competencies, standards, and credentials); and



(c) the organization and facilitation of learning experiences (that is, the “how” of professional development; the approaches, models, or methods used to support self-directed, experientially-oriented learning that is highly relevant to practice).

Professional development refers to the development of a person in his or her professional role; and professional workshops and other formally related meetings are a part of the professional development experience (Ganzer, 2000). This perspective, in a way, is new to teaching in that professional development and in-service training simply consisted of workshops or short term courses that offered teachers new information on specific aspects of their work (Brookfield, 2005). Champion (2003) posited that regular opportunities and experiences for professional development over the past few years had yielded systematic growth and development in the teaching profession.

Cochran-Smith & Lytle, (2001); and Walling & Lewis, (2000) have referred to this dramatic shift as a new image or a new module of teacher education for professional development. In the past 15 years there have been standards-based movements for reform (Hord, 2004; Kedzior & Fifield, 2004; Sparks, 2002). The key component of this reform effort has been that effective professional development has created a knowledge base that has helped to transform and restructure quality schools (Willis, 2000). Marzano, (2003) cited in Quattlebaum, (2012) states that much of the available research on teachers’ professional development involves its relationship to student achievement.

## **2.7 Purposes of Professional Development**

In recent years, as conceptions of teaching and learning have moved away from a view of teachers transmitting information and children listening and remembering, a consensus has emerged as to the purposes and practices of the professional development needed if



teachers are to teach in new and more effective ways (Feinman-Nemser, 2001). In this regard, she identifies four central tasks or purposes of professional development:

1. Deepening and extending teachers' subject matter knowledge for teaching.
2. Extending and refining teachers' repertoires so that they can connect ever more effectively with students' needs and interests.
3. Strengthening the dispositions and skills of teachers to study (and improve) their own teaching.
4. Expanding responsibilities for leadership development so that teachers can participate (as leaders) in the larger life of schools and the profession.

## **2.8 Attributes of Teachers' Professional Development**

Hirsch (2010) discusses two broad attributes considered to be desirable in professional development of teachers.

(A) Firstly, Professional development fosters collective responsibility for improved student performance and must be comprised of professional learning that:

- (i) analyzes student, teacher, and school learning needs through a thorough review of data on teacher and student performance;
- (ii) defines a clear set of educator learning goals based on the rigorous analysis of the data;
- (iii) achieves the educator learning goals identified in subsection (A)(5)(ii) by implementing coherent, sustained, and evidence-based learning strategies that improve instructional effectiveness and student achievement, such as lesson study and the examining of student work;



(iv) provides classroom-based coaching or other forms of assistance to support the transfer of new knowledge and skills to the classroom;

(v) regularly assesses the effectiveness of the professional development in achieving identified learning goals improving goals, teaching, and assisting all students in meeting challenging state academic achievement standards. (Hirsch, 2010).

**(B)** Secondly, the process outlined in (A) may be supported by activities such as courses, workshops, institutes, networks, and conferences that:

(1) must address the learning goals and objectives established for professional development by educators at the school level;

(2) advance the ongoing school-based professional development; and

(3) are provided by for-profit and non-profit entities outside the school such as universities, education service agencies, technical assistance providers, networks of content-area specialists, and other education organizations and associations (Hirsch, 2010).

“Opportunities for active learning, content knowledge, and the overall coherence of staff development are the top three characteristics of professional development (Quatellbaum, 2012). Opportunities for active learning and content specific strategies for staff development refer to a focus on teacher application of learned material (Quatellbaum, 2012). Overall coherence refers to the staff development programme perceived as an integrated whole and development activities building upon each other in a consecutive fashion (Quatellbaum, 2012).





Marzano (2003) warned, however, that standardized staff development activities which do not allow for effective application would be ineffective in changing teacher behavior.

## **2.9 Types of Teachers' Professional Development Programmes**

Gaible and Burns (2005) put Teacher Professional Development (TPD) into three broad categories: Standardized Teacher Professional Development, Site-based Teacher Professional Development and Self-directed Teacher Professional Development.

### **2.9.1 Standardized TPD**

Standardized TPD typically represents a centralized approach, involving workshops, training sessions and in many cases the cascade model of scaled delivery Gaible & Burns (2005). Standardized, training-based approaches generally focus on the exploration of new concepts and the demonstration and modeling of skills Gaible & Burns (2005). When employed in accordance with best practices standardized approaches can effectively:

- i. Expose teachers to new ideas, new ways of doing things and new colleagues
- ii. Disseminate knowledge and instructional methods to teachers throughout a country or region
- iii. Visibly demonstrate the commitment of a nation or vendor or project to a particular course of action

“Often, however, workshops take place at one time and in one location without follow-up, and without helping teachers build the range of skills and capacities needed to use new techniques when they return to their schools. These one-time sessions can certainly help introduce and build awareness about computers, learner-centered



instruction, or new curricula. But trainings without support rarely result in effective changes in teaching and learning—or in adoption of computers at the school level” (Gaible & Burns 2005, p. 19.).

### **2.9.1.1 The Cascade Model**

“In the Cascade model, one or two teachers from a school receive standardized TPD via a training-based model and return to their schools to replicate the training that they have received—serving as “champion teachers” or a “vanguard team.” Cascade approaches are often used to help teachers learn basic computer skills and to integrate computers into teaching and learning” (Gaible & Burns, 2005 p. 20).

“The World Links for Development Programme managed by the World Bank typically relies on a face-to-face Cascade model: Champion teachers participate in professional development, after which they return to their schools’ computer labs to provide basic computing TPD to their colleagues and serve as coordinators or managers of their schools’ computers labs. Although the scale of Cascade-based TPD is potentially tremendous, weaknesses in the approach may limit its effectiveness” (Gaible & Burns, 2005, p.20)”. Factors that impede changes in teachers’ instructional practices include:

- (i) Workshops that typically focus on helping champion teachers learn new techniques as users, without helping them build the skills they need as professional development providers.
- (ii) Strong post professional development training challenges for champion teachers due to a lack of both TPD for school leaders, and programmes that motivate teachers to participate in TPD.



Champion teachers who may lack the leadership, facilitation skills and mastery of the new techniques they need to guide their colleagues effectively—even when time and resources are part of the overall TPD programme (Gaible & Burns, 2005). Using Standardized Teacher Professional Development should be considered when the goal is to:

1. Disseminate information to the largest number of teachers possible
2. Introduce teachers to computers, the Internet, and strategies for using these tools
3. Build awareness of best practices
4. Expose teachers to new knowledge, skills, strategies and individuals

And when conditions are such that:

5. Expert knowledge is scarce or concentrated in urban areas
6. Additional follow-up can be provided on-site in schools (Gaible & Burns, 2005).

#### **Advantages of Standardized Teacher Professional Development**

- i. Standardized TPD can be very effective in building awareness about computers, learner-centred instruction and/or new curricula.
- ii. In the cascade model (training the trainer), a small group of teachers are selected to receive intensive training before returning to their own institutions to provide ICT training for their peers – serving as ‘champion teachers’ or a “vanguard team”.
- iii. The cascade model has tremendous potential particularly with regard to support provision at school level (Hooker, 2017).

#### **Disadvantages of Standardized Teacher Professional Development**

- i. The model tends towards a technical rationalist approach (Schön, 1983 cited in Butler and Leahy 2003).



- ii. The approach hovers on a ‘one fit for all’ principle for upgrading teachers’ knowledge base that is independent of context.
- iii. Teachers are constructed as knowledge consumers with the responsibility to bring what they have learned back to their classrooms and put it into practice
- iv. Workshops taking place at one time and in one location without on-going support rarely result in effective changes for teaching and learning.
- v. Weaknesses in the cascade approach are linked with a tendency to develop the vanguard team’s user skills as opposed to their provider skills.
- vi. Cascade training flows down through levels of less experienced trainers until it reaches the target group; in the process, complex information tends to be lost.
- vii. Without incentives to motivate teachers to participate, collaborate and experiment with new strategies, teachers may be unwilling to take advantage of their more knowledgeable colleagues in the TPD vanguard teams (Hooker, 2017).

To bring about change will take more than the exchange of information typical of “make and take” top-down centralized models for professional development programmes (Dede, 1999 cited in Butler and Leahy, 2003). Research findings indicate that informal contact and communication between teachers is the most prevalent form of transferring ICT knowledge (Hooker, 2017).

From the above review, the researcher noted that the Cascade Model has more shortcomings than it strengths. The knowledge and skills acquired from workshops/trainings may be diluted before they are presented to others after the initial training; since information can be distorted in the process of transmission from on source to another. It is therefore appropriate that all participants are present during training.



### **2.9.2 Site-based Teacher Professional Development (TPD)**

“Site based TPD often takes place in schools, resource centres or teachers colleges. Teachers work with local in-house facilitators or master teachers to engage in more gradual processes of learning, building master of pedagogy, content and technology skills. Site based TPD often focuses on the specific, situational problems that individual teachers encounter as they try to implement new techniques” (Gaible & Burns, 2005. p.21).

Site-based models tend to:

1. Bring people together to address local issues and needs over a period of time.
2. Encourage individual initiative and collaborative approaches to problems.
3. Allow more flexible, sustained and intensive TPD.
4. Provide ongoing opportunities for professional learning among a single set of teachers (Gaible and Burns, 2006).

However, site-based approaches are time and labour-intensive, which also give rise to challenges. Site-based approaches require locally-based TPD providers skilled in facilitation, instruction, content, curriculum, assessment, and technology (Gaible & Burns, 2005). Facilitators also should be adept at helping teachers succeed in low-resource environments. Establishing and maintaining a network of such facilitators to meet the needs of large-scale TPD programmes is challenging in any environment. In the teacher-poor education systems of some developing countries, this challenge is magnified (Gaible & Burns, 2005).

In addition, because site-based TPD extends over a longer period and takes place in many locations, initiatives in specific regions may be disrupted by civil conflict,



disease (HIV/AIDS, cholera, etc), or changes in schools and administrative leadership (Gaible & Burns, 2005).

“Despite these challenges, site-based TPD should be part of any country’s long-term professional-development planning for educational improvement. Such programmes may be expensive while local TPD providers are being developed. However, once site-based programmes are in place, new curricula, pedagogies, tools, and administrative practices can be introduced in a cost-effective manner” (Gaible & Burns, 2005; p.22)

Site-based Teacher Professional Development should be considered when:

1. Changing instructional practices is critical
2. Plans call for a significant enhancement of teachers’ subject knowledge or of classroom teaching and learning
3. Objectives include ongoing growth toward overall excellence in teaching and learning
4. There is a core group of teachers from each school able to participate in professional development
5. Technology, that is, television, radio, and the Internet can be used to supplement professional development
6. Facilitators or master teachers can be developed regionally at Teacher Training Colleges or at Schools (Gaible & Burns, 2005).

Site-based methods can augment and provide follow-up for standardized methods. New science units or assessment methods, for example, can be introduced at nationwide workshops to facilitators and teachers. These facilitators will then return to their schools and work onsite with their colleagues to implement the new techniques effectively (Gaible & Burns, 2005).



### **Advantages of Site-based Teacher Professional Development**

- i. Many studies have pointed to the importance of site-based TPD programmes which can be linked to change and innovation at the classroom and school level
- ii. Study findings also suggest that site-based TPD can be most effective when delivered “in connection with a school development plan” (ibid).
- iii. The tendency in site-based TPD is to support the establishment of teacher communities as communities of practice in order to foster the development of the new learning culture desired.
- iv. The focus is on aiding the project participants to not only implement new approaches but to unlearn the beliefs, values, assumptions and culture underlying their practice (Butler & Leahy, 2005).

Butler and Leahy point to value of incremental learning associated with site-based communities of practice - where every participant has their own perspectives, values and assumptions that become part of the process of constructing new understandings, as in “forming and reforming frameworks for understanding practice: how students and teachers construct the curriculum” (Cochran-Smith and Lytle, 1999:65 cited in Butler & Leahy, 2005).

### **Disadvantages of Site-based Teacher Professional Development**

- i. Site-based approaches are time and labour intensive requiring locally-based TPD providers skilled in facilitation, instruction, content, curriculum, assessment and technology – as well as in mentoring teachers to find solutions in low-resource environments appropriate to their needs and contexts (Hooker, 2017).



- ii. The establishment and maintenance of a network of facilitators to meet the needs of large-scale TPD programmes would be a challenge for any educational system. In the teacher-poor education systems of the Least Developed Countries (LDCs), the challenge is magnified (Gaible and Burns, 2005).

In view of the above, the researcher noted that the strengths of the site-based approach outweigh its shortcomings. Information is given directly to teachers/participants and solutions to challenges are collectively addressed. Apart from it being time consuming, most objectives set for the programmes are achieved.

### **2.9.3 Self-directed TPD**

“In self-directed TPD, teachers are involved in initiating and designing their own professional development goals and select activities that will help them attain these goals (Gaible & Burns, 2005). They would share materials and ideas as well as discuss challenges and solutions (Hooker, 2017). Self-directed TPD can involve watching video examples of classrooms, reading books on education or a field of study, keeping journals, performing case studies, taking online courses, or observing classes taught by colleagues. Many teachers already participate in informal, self-directed TPD, by seeking out an experienced colleague for advice, for example, or searching for lesson plans on the Internet” (Gaible & Burns, 2005; p. 23).

“Self-directed TPD places all responsibility on the teacher and requires little of the school. In many cases, school leadership directs a teacher to develop expertise in a certain area without providing resources or guidance. Teachers may be challenged to make use of the resources that they find on their own: If a lesson plan on plant biology uses Canadian trees as examples, a teacher needs to be able to substitute local trees in





ways that support the lesson accurately. If a project description involves “cooperative learning,” and bases assessment on interactions within small groups, a teacher without advanced skills may make poor use of the project. Self-directed activities are most effective with teachers who are motivated self-starters, and who have already developed teaching skills and subject mastery (Gaible & Burns, 2005; p.23)

For these reasons, self-directed TPD does little to promote basic or intermediate skills, and so is of less benefit to low-skilled teachers (Gaible & Burns, 2005). Computers and the Internet can make self-directed TPD more worthwhile, but even with ample access and connectivity, self-directed TPD works best with advanced teachers wishing to enhance their knowledge and skills (Gaible & Burns, 2005).

While teachers should certainly be encouraged to participate in ongoing, self-motivated learning, self-directed activities should not be used as the primary means of providing TPD. Instead, they should be used to complement and extend standardized and/or site-based TPD (Gaible & Burns, 2005). Using self-directed Teacher Professional Development should be considered only when:

1. There are no other organized professional development options
2. Self-motivated and innovative individual teachers need opportunities for learning that are not otherwise available
3. Self-directed activities are part of an overall professional development programme that includes standardized or site-based TPD
4. Supports, incentives and structures are in place to ensure that self-directed TPD is the most effective way to meet teacher needs (Gaible & Burns, 2005).



### **Advantages of Self-directed Teacher Professional Development**

- i. This approach to professional development helps teachers to become models of lifelong learners.
- ii. Informal versions of self-directed TPD find teachers seeking out experienced colleagues for advice or searching for lesson plans on the Internet.
- iii. The emergence of on-line communities of teachers to provide support in professional development across a range of subject areas and themes (Pelgrum and Law, 2003)

Gaible and Burns (2005) consider that while teachers should certainly be encouraged to participate in ongoing, self-motivated learning, self-directed activities should not be used as the primary means of providing TPD. Instead, they should be used to complement and extend standardized and/ or site-based TPD.

#### **2.9.4 Workshops**

"In order to become a truly great teacher, one must go beyond the textbook and attend workshops and ongoing education courses to truly master the practice (Hill 2012). Good teachers become great teachers by going beyond the call of duty and beyond the textbook. To do this, he or she must continue their education. There are conferences, workshops, and other forms of continuing education that could give the teacher that extra help in knowledge, skills and technology for their students. Today, in addition to onsite workshops, there are online workshops that teachers could attend to improve their effectiveness and professionalism (Hill, 2012).

In general, a workshop is a single, short (although short may mean anything from 45 minutes to two full days) educational programme designed to teach or introduce to participants practical skills, techniques, or ideas which they can then use in their work or



their daily lives (Community Tool Box, 2016). Most workshops have several features in common:

- i. They are generally small, usually from 6 to 15 participants, allowing everyone some personal attention and the chance to be heard. Where there are a large number of participants, they are often split into smaller groups to facilitate effective discussions.
- ii. They are often designed for people who are working together, or working in the same field.
- iii. They are conducted by people who have real experience in the subject under discussion (Community Tool Box, 2016).

#### **2.9.4.1 Characteristics of workshops**

- a. They are often participatory, that is, participants are active, both in that they influence the direction of the workshop and also in that they have a chance to practice the techniques, skills, etc. that are under discussion.
- b. They are informal; with a good deal of discussion in addition to participation, rather than just a teacher presenting material to be absorbed by attentive students.
- c. They are time limited, often to a single session, although some may involve multiple sessions over a period of time (for example once a week for four weeks, or two full-day sessions over a weekend).
- d. They are self-contained. Although a workshop may end with handouts and suggestions for further reading or study for those who are interested, the presentation is generally meant to stand on its own, unlike a course, which depends on large



amounts of reading and other projects (papers, presentations) in addition to classroom activities (Community Tool Box, 2016).

#### **2.9.4.2 Advantages of workshops**

The Community Tool Box (2016) identifies a number of advantages of workshops in teacher professional development:

1. A workshop provides a way to create an intensive educational experience in a short amount of time, when the time for a more comprehensive effort may not be available. Participants may be working, they may be too far apart to gather together regularly, or may simply be unwilling to commit large amounts of time. A workshop can introduce a new concept, spurring participants to investigate it further on their own, or can demonstrate and encourage the practice of actual methods.
2. It is a great way to teach hands-on skills because it offers participants a chance to try out new methods and fail in a safe situation. Failure is often the best teacher, and failure in this instance doesn't carry a cost. At the same time, feedback, from both the presenter and peers in the group, helps a participant understand what she can do to avoid failure in a real situation.
3. A workshop is a way for someone to pass on to colleagues, ideas and methods that he has developed or finds important. Teaching a graduate course may not be possible, but he may be able to reach large numbers of people by conducting workshops in various situations.
4. Especially for people who work together, a workshop can help to create a sense of community or common purpose among its participants.
5. Participants are usually very motivated.



6. There is flexibility over length and frequency of sessions.
7. One can offer a series of workshops that build on one another (Baysinger, 1998).

### **2.9.4.3 Disadvantages of workshops**

1. Participants attending may have different levels of previous knowledge and a broad range of skills (computer and language), resulting in some being passive participants.
2. Depending on the type of workshop, organizers may have difficulty getting a room if classroom space is in short supply.
3. It may be hard to fit everything that you want to cover into a single workshop.
4. Handling large classes for hands-on practice may be difficult (Community Tool Box, 2016).

From the above review the researcher is of the view that the benefits and strengths of workshops far outweigh its shortcomings. It is more convenient to teachers and in-depth knowledge is usually acquired by participants. However, poor organization from workshop organizers and overloaded content may pose challenges especially when it is just a one-day workshop.

### **2.9.4.4 When workshops are relevant**

A workshop is valuable in certain circumstances and there are a number of situations in which a workshop would be the best choice:

The beginning of something new - If your school/organization is adopting a new method or your community initiative is taking a new track, there are often new pieces of information or ways of functioning that people must learn. A workshop, or series of workshops, is a way to introduce these in a short time and get people ready for the change (Community Toolbox, 2016).



The initial training of staff or volunteers - Workshops are often a good way to train new staff members or volunteers in the philosophy, methods, and functioning of your organization, or in techniques they'll need to do their jobs (Community Toolbox, 2016).

### **2.9.5 In-service Training**

In-service training is a planned process whereby the effectiveness of teachers collectively or individually is enhanced in response to new knowledge, new ideas and changing circumstances in order to improve, directly or indirectly the quality of pupils' education (Shanmugavelu, 2015). It promotes the professional growth of individuals through a process of staff development for the purpose of improving the performance of an incumbent holding a position with assigned job responsibilities (Halim & Ali, 1988). In-service training is a problem-centred, learner-oriented, and time-bound series of activities which provide the opportunity to develop a sense of purpose, broaden perception of the clientele, and increase capacity to gain knowledge and mastery of techniques (Olujide, 2017).

#### **2.9.5.1 Importance of in-service training for teachers**

The need for in-service training in schools is getting more attention for teachers to equip with new knowledge and skills for them to face new challenges and reformation in education (Omar, 2014). Developing teacher qualifications and giving them a professional identity can not only be through pre-service teacher education programme but also through the integration of the pre-service teacher education and in-service training programme (Saban, 2000). "In-service training can enhance the professionalism of teachers who can contribute to the organization to achieve its goals. In-service training is a professional and personal educational activity for teachers to improve their



efficiency, ability, knowledge and motivation in their professional work. In-service training offers one of the most promising roads to the improvement of instruction. It includes goal and content, the training process and the context” (Omar, 2014; p. 2). Ombati & Okibo, (2015) note that in-service training is the totality of educational and personal experiences that contribute toward an individual being more competent and satisfied in an assigned professional role. The primary purpose of in-service training is to enable teachers to acquire new understanding and instructional skills. It focuses on creating learning environments which enable teachers to develop their effectiveness in the classroom (Ong, 1993 cited in Omar 2014).

In this aspect, in-service training for teachers is the driving force behind much change that has occurred in the area of teaching and learning. It is vital that teachers keep up to date on the most current concepts, thinking and research in their field and also promote professional growth among teachers in order to promote excellent and effective teaching and learning environment for students (Omar, 2014). Kazmi, Pervez & Mumtaz (2011) opine that in-service training for teachers enables the teachers to be more systematic and logical in their teaching style.

In-service training is a fundamental aspect for the enhancement of teachers professionalism related to the teachers’ vision to improve the quality of their work. Through in-service training, teachers can identify and evaluate critically the culture of the school which can bring changes to the working culture (Omar, 2014). Studies by Ekpoh et al, (2013) show that, teachers who attend in-service training perform effectively in their work concerning knowledge of the subject, classroom management, teaching method and evaluation of students.



Studies by Jahangir, Saheen & Kazmi (2012) also shows that in-service training plays a major role to improve the teachers' performance in school. Besides that, in-service training also provides teachers with ample opportunities to learn new concepts, methods and approaches through professional development. In-service training is a deliberate and continuous process involving the identification and discussion of present and anticipated needs of individual staff for furthering their job satisfaction and career prospects and of the institution for supporting its academic work and plans, and the implementation of programmes of staff activities designed for the harmonious satisfaction of these needs (Omar, 2014).

In-service training can also change the attitude and skills of teachers and further increase the performance of students. It also can help to change the procedures, approaches and practices teacher teach, the way student learn and would also help to create an excellent school culture in schools (Omar, 2014). According to Frederick & Stephen (2010), during the in-service training, teachers will learn school management skills, evaluation techniques and master wider content areas of their subjects. For this reason, teachers and educational experts should increase their effort in fostering and implementing in-service training in schools so as to improve the effectiveness of development in schools.

In-service training has undergone considerable change in the recent years. As a practice, "result-driven in service training is concerned with changing behaviour and/or attitudes of teachers, administrators and staff members rather than being concerned with the number of participants in such programmes", (Ronald,2004:169). It is literally impossible today for any individual to take on a job or enter a profession and remain in it





without any changes. Therefore “in-service training is not only desirable but also an activity to which each school system must commit human and fiscal resources if it is to maintain a skilled and knowledgeable staff”,(Ronald, 2004:170).

“The importance of in-service training should be looked in various perspectives. It promotes a very flexible environment and allows teachers to adapt with the working situation and it is also one form of motivation for employees or employers and it will continue to increase creativity in teaching and learning process. It also enables teachers to acquire new understanding and instructional skills to develop their effectiveness in the classroom”, (Omar, 2014; p.3).

### **2.9.6 Distance Education/Learning**

In recent years, it has been recognized that for teacher training to become more effective in producing real changes in classroom practices, it ought to promote continuous, professional development opportunities that are cumulative and sustained over the career of a teacher (Joubert & Surtherland, 2009 in Meletiou-Mavrotheris & Papanastasiou 2010). The financial and logistic difficulties of engaging teachers in face-to-face professional development opportunities, as well as the need for professional development which can fit with teachers’ busy schedules and can draw on powerful resources often not available locally, have encouraged the creation of distance teacher professional development programmes (Dede et al., 2006 in Meletiou-Mavrotheris & Papanastasiou, 2010).

UNESCO (2008) cited in Muffer (2013) estimated that some 10 million teachers must be recruited and trained in less than a decade in order to achieve universal primary education in Sub-Saharan Africa. This figure is alarming so much such that if nothing is done



urgently, many countries will continue to face teacher training and qualification problems. Looking at the precarious situation from a keener point of view, Danaher and Umar (2010) think that because of the colossal number of teachers, even if various countries succeed in recruiting, it will certainly not be possible to train them using the traditional methods of institutional pre-service education. Open and distance learning must be harnessed to the task since several research reports have indicated that it offers training of consistent quality to large numbers at low cost (Danaher & Umar, 2010). “Distance learning is a contributing force to social and economic development. It is fast becoming an essential part of the mainstream of educational systems in both developed and developing countries. The globalization of distance learning provides many opportunities for countries for the realization of their education system-wide goals. The growing needs for continual skills upgrading and retraining and technological advances have led to an explosion of interest in distance learning”, (Bušelić, 2012; p. 25).

Distance learning is a field of education that focuses on teaching methods and technology with the aim of delivering teaching, often on an individual basis, to students who are not physically present in a traditional educational setting such as a classroom (Bušelić, 2012). It has been described as a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both. The basic definition of distance learning considers that the teacher and the students are separate in the spatial dimension and that this distance is filled by using technological resources (Casarotti et al., 2002). Distance learning can be summarized as teaching and learning involving implementation of various technological applications.



This term also reflects both the fact that all or most of the teaching is conducted by someone removed in time and space from the learner (Buselic, 2012).

Currently, the literature available on distance education seems to centre around information technology and it could give the impression that if one is engaged with distance education, then you must be enthusiastic about intricate technological hardware and software or conversely, if one is not engaged with the emerging technologies then one must be doing something that is not authentic or worthy of recognition and certainly obsolete. This begs the question - what is distance education about? Is it about:

- a. distance - geographical, conceptual cultural, virtual;
- b. education (curriculum and pedagogy);
- c. knowledge;
- d. technological advances;
- e. business strategy; or
- f. a combination of all or some of the above (Prummer, 2005).

The term "distance education" really originated with the Germans and their words "fernstudium" and "fernunterricht" which translate into the English words "distance education" and "distance teaching" respectively (Armstrong, 2000). It was only after 1983 when the work of German Scholars like Otto Peters had been published in English and through the efforts of authors such as Desmond Keegan (1986) cited in Armstrong 2002) that the term became widespread and popularized.

“Distance learning is the preferred choice of individuals who are either working or cannot be physically present to attend classes. Education is offered here on virtual basis, where time and distance does not matter and the learner can access information at his/her





own convenience. There are various modes which are covered under distance education such as evening classes provided by the universities or correspondence education where attending classes is not compulsory. Online classes via the Internet, educational DVDs and study material, including books and other reference material, also form a part of the educational content. This flexible system of education is considered to be less expensive, yet effective, and without any geographical constraints. Students still have access to their mentors/ teachers in some or the other way. For example, they have different forums for their questions, feedback or suggestions. They might also have teacher-student interaction periodically in certain correspondence classes. At times, the interaction can also be had on emails. Distance learning was first introduced in London in 1858 and the University of London was the first provider of external education. The degrees given were based on the same model. Today, distance learning is considered to be as good as regular education and it has spread globally with a large number of institutions in various countries. Many institutes in India and abroad are imparting education to students via distance mode and a large number of industry professionals are enhancing their qualifications through correspondence. Distance education has many benefits. The primary benefit is that students can work and study at the same time and at their own pace and convenience. Students who opt for this mode of learning are assessed by means of online or offline examinations. Distance learning is not just about studying part time at one's own convenience.

Any distance education programme must cultivate in teachers the skills, knowledge, and dispositions necessary to succeed in a world that increasingly demands workers who are creative, collaborative problem solvers and critical thinkers. Without

this understanding, and without professional learning opportunities and instruction that are grounded in best practices associated with high-quality professional development, distance learning programmes and distance learners themselves risk failure (Commonwealth of Learning, 2008; National Staff Development Council, 2007; Dede et al., 2005a; Sparks, 2002 in Meletiou-Mavrotheris & Paparistodemou, 2010). After years of research (National Staff Development Council, 2007; Kleiman, 2004; Sparks, 2002 in Meletiou-Mavrotheris & Paparistodemou, 2010) to identify its characteristics, we now know a lot about what constitutes high-quality professional development. Professional development should:

- i. Be competency-based—focused on helping teachers develop the knowledge, skills, attitudes, and dispositions demonstrably shown to improve teaching
- ii. Be based on an understanding of teachers’ needs and of their work environments
- iii. Focus on deepening teachers’ content knowledge and pedagogical skills
- iv. Model the exact behaviors teachers are supposed to employ in their own classrooms
- v. Include opportunities for practice, research, and reflection
- vi. Use information related to student learning for teacher development
- vii. Be embedded in educators’ workplaces and take place during the school day
- viii. Be sustained over time
- ix. Be grounded in a sense of collegiality and collaboration among teachers and between teachers and principals to solve important problems related to teaching and learning
- x. Build professional learning communities (technical and social support provided by professional learning communities helps to overcome inertia of status quo and helps teachers make complex changes)



- xi. Build teacher leadership and distributed leadership
- xii. Focus on a small number of student learning goals
- xii. Match adult learning processes to intended outcomes

### **2.9.6.1 Growth and Importance of Distance Learning**

The number of higher education institutions around the world offering distance education programmes has increased significantly in the last two decades, and most countries have seen a growth in distance education enrollments. The literature reviewing distance education trends, the evolving methods of delivery, and emerging distance technologies is extensive. Even still, the rapid growth of technology in this field of education has outpaced research on practice, design, and models (Hanover Research, 2011). One established distance education researcher noted that “Because technologies as delivery systems have been so crucial to the growth of distance education, research has reflected rather than driven practice” (Gunawardena & McIsaac, 2004. p.2). She goes on to explain that this form of teaching has evolved from a specialized form of education to “an important concept in mainstream education” (Gunawardena & McIsaac, 2004. p.2).

One of the reasons that distance education has become and remained so prevalent, in particular for higher education, is that various studies have validated its practice – revealing no significant differences in learning outcomes between traditional and distance students. A recent study, published in 2005, found this to be the case when comparing students who were delivered the exact same content via one of three setups: in a traditional classroom, via online course management software, and through a CD-ROM, respectively. The authors measured no significant change in overall student satisfaction between the three groups (Skylar *et al.*, 2005).



A twenty year meta-analysis, released in 2009 went so far as to argue that in 70 percent of cases students taking courses by distance education actually outperformed their student counterparts in traditionally instructed courses (Shacar & Nuemann, 2010). Clearly, distance education is here to stay as a form of instruction and its proliferation continues to change the landscape of higher education.

### 2.9.6.2 Types of Distance Education/Learning

The available methods of learning used in distance learning are divided into two basic groups: synchronous and asynchronous learning. The term synchronous learning is a mode of delivery where all participants are present at the same time. It resembles traditional classroom teaching methods despite the participants being located remotely. It requires a timetable to be organized. The asynchronous learning mode of delivery is where participants access course materials on their own schedule and so is more flexible. Students are not required to be together at the same time. The two methods can be combined in order to deliver one course (Bušelić, 2012).

**Correspondence Learning:** With correspondence learning, you receive your textbooks, study guides, assignments and other study materials via the post. You work through these materials in your own time and at your own pace. Depending on the institution through which you choose to study your course, you may be able to ask a tutor or instructor for help via e-mail, telephone, instant messaging, or post (Oxbridge Academy, 2017).

**Electronic Learning:** Electronic learning, often referred to as e-learning, enables you to access your course material on a computer. CDs, DVDs, and computer-based applications can all be used to deliver e-learning courses.



**Online Learning:** Online learning is a form of electronic learning that requires you to have access to the internet. Online learning is often more interactive than the other types of distance learning, as it allows you to communicate with tutors, instructors and fellow students in real time. With online learning, you might also be able to download your study material from the internet, submit your assignments via an online student portal, complete assessments online, attend webinars, and participate in virtual classes.

Distance learning has evolved greatly since the days of correspondence learning in which the student would receive course materials including textbooks and other course materials through the mail. Students would then work completely at their own pace, finishing the course according to their work and life schedule. Although correspondence courses still exist, they are quickly being replaced by online courses, which offer instruction from teachers, interaction with other students, and a forum for feedback.

There are a number of advantages to the new formats of distance learning, such as making permanent professional contacts, a greater amount of teacher support and a multimedia educational experience. With the advent and improvements on computer, digital and Internet technology, the shift from the traditional classroom experience to online or distance learning only seems natural. This is especially true for programmes that traditionally require large amounts of reading and written assignments, such as business administration and management, human resources management and services, finance and accounting. There are a variety of ways to structure distance learning courses. The format depends on the purpose of the online course.





## **Synchronous versus Asynchronous Distance Learning**

The four types of distance learning fall under the categories of either synchronous or asynchronous. Synchronous literally means “at the same time”, while asynchronous means “not at the same time”. Synchronous distance learning involves live communication either through sitting in a classroom, chatting online, or teleconferencing. Asynchronous distance learning usually has a set of weekly deadlines, but otherwise allows students to work at their own pace (Metro Voice, 2013). Students have more interaction with their peers and deliver correspondence through online bulletin boards. This type of learning might get tedious for some because they are usually only receiving the information through text medium; however some asynchronous classes involve video or audio supplements.

Synchronous learning is less flexible and disrupts the student’s life to a greater extent. It is, however, the most popular form of college distance learning and continuing education programmes, as it facilitates a greater amount of interaction between students and professors.

Some classes that do well in a synchronous format include those degree programmes that highlight communication, such as general psychology, nursing, general education, and counseling psychology. Those programmes that weigh more heavily on projects and assignments thrive in an asynchronous format because they provide the students with more time to focus on their work. A few degrees that work well in this format include marketing, healthcare administration, legal assistant or paralegal, educational or instructional media design and advertising (Metro Voice, 2013).

### **Open Schedule Online Courses**



With open schedule online courses, students are allotted the greatest amount of freedom. This is an asynchronous form of learning in which students are provided Internet-based textbooks, mailing lists, Email and bulletin boards to complete their coursework. At the beginning of classes, the student is provided a set of deadlines, but is allowed to work at their own pace as long as the work is turned in by the deadline. This type of learning is great for students who work well independently and those who do not procrastinate (Metro Voice, 2013).

### **Hybrid Distance Learning**

Hybrid courses combine synchronous and asynchronous learning to create a structure in which the student is required to meet at a specific time in a classroom or Internet chat room. However, they are allowed to complete assignments on their own time and may pass them in through an online forum. This option is sometimes offered when a university lacks adequate space to accommodate all their course loads (Metro Voice, 2013).

### **Computer Based Distance Learning**

The main difference between computer based learning and hybrid learning is that students are not allowed an open schedule. They are required to meet in a specific computer lab or in a classroom at a designated time each week (Metro Voice, 2013).

### **Fixed Time Online Courses**

The most common type of distance learning today is fixed time courses. As the title states, these courses are strictly online, but students are required to log-in to their online learning site at a specific time. Although they are completely online, the format



remains synchronous because mandatory live chats are often required (Metro Voice, 2013).

### **2.9.7 Advantages of distance education/learning.**

Distance learning offers a myriad of advantages which can be evaluated by technical, social and economic criteria. Also, distance learning methods have their own pedagogical merit, leading to different ways of conceiving knowledge generation and acquisition (UNESCO, 2002, p. 65). Distance learning increases access to learning and training opportunity, provides increased opportunities for updating, retraining and personal enrichment, improves cost effectiveness of educational resources, supports the quality and variety of existing educational structures, enhances and consolidates capacity. Another advantage of distance learning is its convenience because many of the technologies are easily accessible from home. Many forms of distance learning provide students the opportunity to participate whenever they wish, on an individual basis, because of distance learning flexibility. This kind of education is quite affordable, as many forms of distance learning involve little or no cost. Distance learning is also multi-sensory. There is a wide variety of materials that can meet everyone's learning preference. In fact some students learn from visual stimuli and others learn best by listening or interacting with a computer programme. Also, distance learning can offer increased interactions with students. In particular, introverted students who are too shy to ask questions in class will often "open up" when provided an opportunity to interact via e-mail or other individualized means (Franklin et al 1996 cited in Buselic, 2012, p. 26). There are some other related benefits of distance learning such as: balancing inequalities between age groups, geographical expansion of education access, delivering education



for large audiences, and offering the combination of education with work or family life.

Perumal, (2016) also identifies a number of advantages of distance learning that include:

1. Provides for an increase in access to education for those who otherwise have no other opportunities due to work, family or physical limitations.
2. Provides for a modality of instruction better suited for certain learners.
3. Greater flexibility for scheduling learning-Students can determine time and place of class time.
4. Greater flexibility in location for study-Students can engage course at home or work or on campus or at a library.
5. Distance Education is Learner Centered – Distance Education places responsibility for learning with the learner who must be more active and self-directed.
6. Facilitates greater learner-instructor interaction.
7. Increased interaction with classmates.
8. Facilitates Pedagogic Development - Individual Instructor Development.
9. Produces a carryover effect into the regular classroom of improved pedagogic techniques.
10. Opportunity to develop technology competencies for instructors and learners.
11. Access to global resources and experts via internet communication and Internet resources.
12. Allows for the internationalization of learning opportunities.
13. Centralized resources can produce higher quality materials for distribution.
14. Has the potential to equalize access to education.



### **2.9.8 Disadvantages of distance education/learning**

While there are countless distance education advantages, there are also various disadvantages of distance learning, that students and institutions should be aware of before starting any distance learning programme. Distance learning requires advance planning. Both the instructors and students involved in distance learning will need to make sacrifices, at times, in order to get things done on time. Distance learning, although affordable, may come with hidden costs (for example, extra shipping and handling costs). Distance learning does not offer immediate feedback. In a traditional classroom setting, a student's performance can be immediately assessed through questions and informal testing. With distance learning, a student has to wait for feedback until the instructor has reviewed his or her work and responded to it. Compared with traditional course delivery method, distance learning demands a disproportionate amount of effort on the part of instructors. Teaching distance courses includes not only the time required for actual delivery of course materials, but it must also involve a great deal of time dedicated to student support and preparation. Also, time spent on e-mail correspondence is very significant. Distance learning does not always offer all the required coursework online for every degree programme. In fact, physical classroom attendance is mandatory for the completion of some degree programmes. Distance learning degrees may not be acknowledged by all employers although most employers do. Students who want to work for a specific employer upon graduation should be sure of that employer's perspective about online education. Distance learning does not give students the opportunity to work on oral communication skills. Students in distance learning courses do not get the experience of practicing verbal interaction with professors and other students. Another



disadvantage of distance learning is social isolation. Distance learners may feel isolated or miss the social-physical interaction that comes with attending a traditional classroom. However, many distance learning participants have reported that this sense of isolation has been decreasing with the use of communication technologies such as bulletin boards, threaded discussions, chats, email, and video conferencing.

The most important issue regarding distance learning is instructors' preparedness and students' attitude. If students do not perceive the technology as useful, they will be not receptive to distance education (Christensen, E. W., Anakwe U. P. & Kessler, E. H., 2001, p. 267). Also, the inability of teachers to develop the necessary skills, to adopt a positive attitude, and to develop the needed pedagogy are other important problems affecting the creation of distance learning community. There is connection with pedagogy, personal experience, and distance learning. When a teacher is somewhat reluctant to use technology or views it in a negative way, pedagogy may suffer. Many researches proved that many educational initiatives failed because they had little impact on teacher's beliefs or practices (Niederhauser & Stoddart, 2001, p. 25). The method of introducing computers to faculty is another factor in the personal development of technological pedagogy. Faculties may also experience other barriers such as time needed to learn the technology, frustration with malfunctioning technology, much lead time to prepare the distance learning materials, less time for research, and added monetary costs to work with technology at home and at the office. (Perumal, 2016) also identifies the following disadvantages of distance learning.

1. Time and frustration involved learning how to get on-line for novices.
2. Lag time between student input and feedback -Time lapse between need for learner



support and resolution.

3. Occasional internet provider downtime.
4. Student must be more active and self-directed in learning environment - Depends on individual motivation and initiative.
5. Occasional feelings of isolation- Potentially less group support for learners leading to isolation and possible non-completion of programme.
6. Instructional design for group activities and group interaction more demanding on the instructor.
7. Demands large effort and cost to develop appropriate materials.
8. Demands large effort to create and maintain the technological infrastructure.
9. Distance Education is not for everyone. It is neither for undisciplined learners nor inflexible instructors.

### **2.9.9 Importance of Teachers' Professional Development**

Education is considered as the bedrock for economic, political and social transformation of any society. Over the years there has been an increasing awareness and acceptance of the assertion that teachers are the oil that lubricates the engine of education in society. If it is so, then professional development of teachers is an essential ingredient for development of skills, knowledge, and attitude to enhance their delivery in effective and efficient manner (Adeku et al., 2013).

Great teachers help create great students. In fact, research shows that an inspiring and informed teacher is the most important school-related factor influencing student achievement, so it is critical to pay close attention to how we train and support both new and experienced educators. It is critical for teachers to have ongoing and regular



opportunities to learn from each other. Ongoing professional development keeps teachers up-to-date on new research on how children learn, emerging technology tools for the classroom, new curriculum resources, and more. The best professional development is ongoing, experiential, collaborative, and connected to and derived from working with students and understanding their culture. Professional development is thus key to meeting today's educational demands.

“Effective professional development enables educators to develop the knowledge and skills they need to address students’ learning challenges. To be effective, professional development requires thoughtful planning followed by careful implementation with feedback to ensure it responds to educators’ learning needs. Educators who participate in professional development then must put their new knowledge and skills to work. Professional development is not effective unless it causes teachers to improve their instruction or causes administrators to become better school leaders” (Mizell, 2010; p.10). The effectiveness of professional development depends on how carefully educators conceive, plan, and implement it. There is no substitute for rigorous thinking and execution. Unfortunately, many educators responsible for organizing professional development have had no formal education in how to do so. The learning experiences they create for others are similar to their own experiences, many of which were neither positive nor effective (Mizell, 2010).

School systems today are charged with addressing ever-increasing demands: reducing the achievement gap, adopting evidence-based practices, meeting adequate yearly progress goals, managing the requirements of second-language and special-needs students, and remaining current on the increasing amount of pedagogical and content area





research. Educators must keep abreast of the important advances that are occurring in education (Joyner and Reed, 2005). This is where professional development comes in.

From the above, all schools should be places where both adults and students learn. Teachers and administrators who routinely develop their own knowledge and skills model for students that learning is important and useful (Mizell, 2010). Their ongoing development creates a culture of learning throughout the school and supports educators' efforts to engage students in learning. A school that organizes team-based professional development and expects all teachers and administrators to consistently participate; even though for a different purpose, at different times, in different ways, demonstrates that it is serious about all teachers performing at higher levels (Mizell, 2010). As a result, the entire school is more focused and effective.

## **2.10 Influence of Professional Development on Teachers' Performance**

### **2.10.1 Effects on teachers' degree of self-efficacy**

Teacher efficacy is defined as a teacher's "judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated (Tschannen-Moran and Woolfolk Hoy, 2001, p.783). This important construct has received much acclaim in the educational literature; over the past decade or so, noticeable developments in research on this construct and its significant role in education has been witnessed (Karimi, 2011).

A study by Karimi (2011) proved a significant effect of professional development initiatives on enhancing EFL teachers' sense of efficacy in teaching. It demonstrated that teacher efficacy which refers to "a teacher's desire to implement the teaching strategies he/she believes to be appropriate and efficacious and, perhaps more importantly, the



tenacity with which he/she will persist in trying to do so” (Overbaugh & Lu, 2008, p.45) can be closely related to the knowledge and skills a teacher possess in a specific domain. Thus, it is indicated that Professional Development can create some belief in the teachers’ capabilities and is compelling enough to significantly disrupt the teachers’ previous beliefs in their abilities. A good point about the findings of the study is that the effects of professional development on self-efficacy beliefs tends to hold strong even with the passage of time, as the results of the delayed post-test revealed.

Teaching is, by nature, a demanding job which poses substantial challenges to the teachers in terms of content knowledge, pedagogical knowledge and strategies, student management, etc. (Ross & Bruce, 2007). The teachers should, therefore, be prepared to effectively meet these challenges.

Professional development initiatives provide teachers with mastery experiences in the areas of content knowledge, instructional strategies, student and classroom management.

Professional development activities can be described as significant vehicles for offering to teachers a wide range of information aligned to their pedagogical needs. These activities, if planned properly, address the needs of teachers in all the three components of teacher self-efficacy (Guskey, 2003; Sparks and Hirsh, 2000; and Hopkins, 2005).

Based on this line of argument and given the critical importance of teacher belief in his/her pedagogical ability to student achievement outcome (Zambo & Zambo, 2008), educational policy makers should consider launching quality professional development programmes aimed specifically at raising teachers’ operational knowledge and content standards which in turn boosts the teachers’ efficacy.



Teacher efficacy is therefore strongly connected to teacher professional learning opportunities that can provide mastery and vicarious experiences, thus raising teachers' personal competence levels. School embedded professional learning opportunities can thus answer to self-directed desires for instructional change, which can then provide the motivation to sustain efforts and overcome obstacles (Palardy & Rumberger, 2008; Zambo & Zambo, 2008; Puchner & Taylor, 2006; Pintrich & Schunk, 2002; Tschannen-Moran & Woolfolk Hoy, 2001).

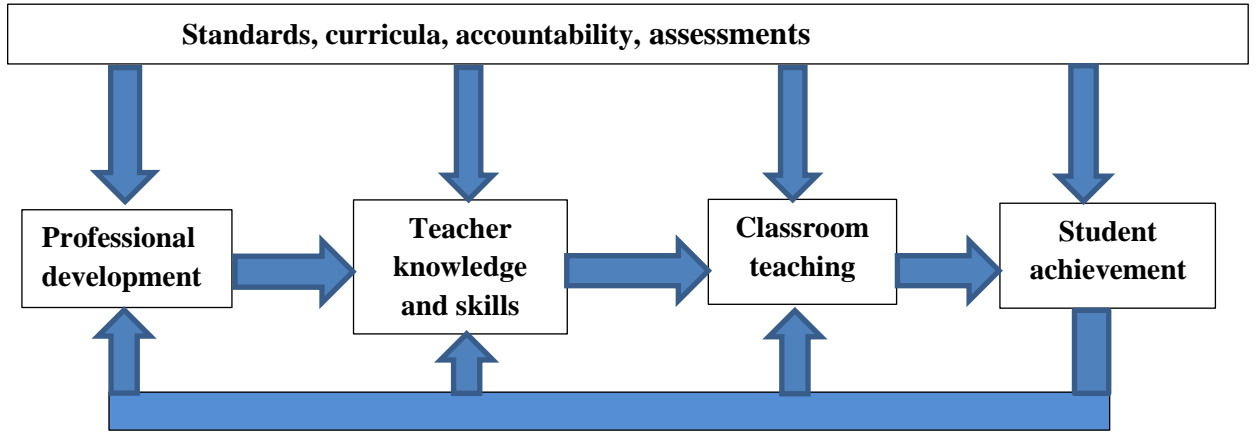
### **2.11.2 Influence of Teachers' Professional Development on Students' Performance**

School leaders improve with study, reflection, practice, and hard work. Their learning supports not only teachers' learning, but students' as well. When leaders know how to engage teachers, support staff, and students in effective learning, the school becomes the center of learning for all adults and students (Mizell, 2010).

Showing that professional development translates into gains in student achievement poses tremendous challenges, despite an intuitive and logical connection (Borko, 2004; Supovitz, 2001). To substantiate the empirical link between professional development and student achievement, studies should ideally establish two points. One is that there are links among professional development, teacher learning and practice, and student learning. The other is that the empirical evidence is of high quality, that is, the study proves what it claims to prove. Consistent with models of effective professional development (Cohen & Hill, 2000; Garet et al., 2001; Fishman, Marx, Best, & Tal, 2003; Guskey & Sparks, 2004), Yoon et al., (2007) report that the effects of professional on student achievement are mediated by teacher knowledge and practice in the classroom and that professional development takes place in the context of high standards,



challenging curricula, system-wide accountability, and high-stakes assessments (see figure 1 on page 54).



**Figure 1:** How professional development affects students’ achievement

Source: Yoon et al. (2007)

“Professional development affects student achievement through three steps. First, professional development enhances teacher knowledge and skills. Second, better knowledge and skills improve classroom teaching. Third, improved teaching raises student achievement. If one link is weak or missing, better student learning cannot be expected. If a teacher fails to apply new ideas from professional development to classroom instruction, for example, students will not benefit from the teacher’s professional development. In other words, the effect of professional development on student learning is possible through two mediating outcomes: teachers’ learning, and instruction in the classroom” (Yoon et al, 2010, p.4).

In the first step, professional development must be of high quality in its theory of action, planning, design, and implementation (Yoon et al, 2010).



- i. It should be intensive, sustained, content-focused, coherent, well defined, and strongly implemented (Guskey, 2003; Garet et al., 2001).
- ii. It should be based on a carefully constructed and empirically validated theory of teacher learning and change (Richardson & Placier, 2001).
- iii. It should promote and extend effective curricula and instructional models—or materials based on a well-defined and valid theory of action (Cohen, Raudenbush, & Ball, 2002; Hiebert & Grouws, 2007; Rossi, Lipsey, & Freeman, 2004).

In the second step, teachers apply their enhanced knowledge, skills, and motivation to classroom teaching (Borko, 2004), supported by ongoing school collaboration and follow-up consultations with experts. Doing so could require overcoming such barriers to new practices as lack of time for preparation and instruction, limited materials and human resources, and lack of follow-up support from professional development providers (Yoon et al, 2010).

In the third step, teaching that is improved by professional development raises student achievement.

### **2.11 Effective methods of teachers' professional development**

Teacher Professional Development (TPD) is the tool by which policymakers convey broad visions, disseminate critical information, and provide guidance to teachers. Effective TPD begins with an understanding of teachers' needs and their work environments, that is, schools and classrooms. TPD then combines a range of techniques to promote learning; provides teachers with the support they need; engages school leadership; and makes use of evaluation to increase its impact. Essential techniques include mentoring, teamwork, observation, reflection and assessment (Watson 2012;



Djatkiko 2011; Gaible 2005). TPD programmes should engage teachers as learners - typically involving the process of “modeling.” Modeling is an instructional method in which teachers experience the kinds of learning that they are expected to implement in the classroom. Design of TPD might, for example, have teachers working in pairs or teams to help build their understanding of collaborative learning (Gaible & Burns, 2005). To be effective and successful, teacher professional development must be of high quality and relevant to teachers’ needs.

Over the past several decades the focus on educational change has been pervasive and unrelenting as education systems everywhere have struggled to meet the needs of the times. For those of us who have a long history of involvement in education, it is sometimes hard to imagine that there could be anything new under the educational reform sun, as old ideas are recycled and the pace of change often seems painfully slow. But periodically, something surfaces that has the power to fundamentally reshape how we work (Timperly et al, 2007).

“Many factors influence student learning, but it is increasingly clear that what teachers know and are able to do is one of the most important of all. Teachers are the ones who work directly with students, who translate and shape curricular goals and theoretical ideas into classroom practice and who shape the environment for learning. Teachers’ knowledge, skills, attitudes, and dispositions have direct and serious implications for the success of the students they teach. From this standpoint, professional learning represents an enormous investment in the development of human capital, directed at ensuring that the teaching and learning in our schools is up to date and effective. If teachers, school leaders, and governments are going to expend energy and



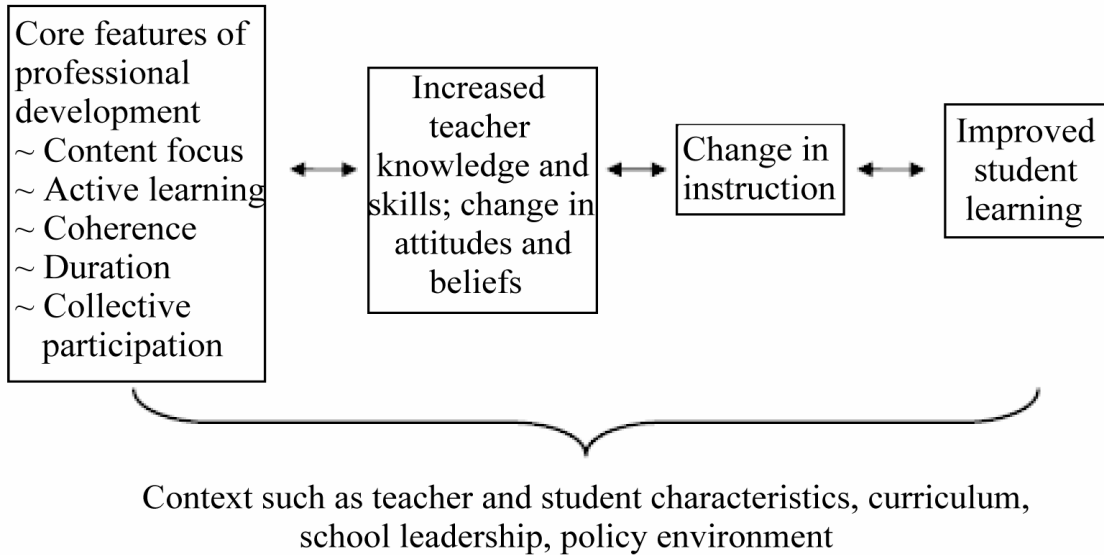
resources on professional learning, an understanding is needed about the kinds of learning that help teachers develop and grow in ways that will serve all their students well, even as expectations of students and schools are constantly changing (Timperly et al, 2007, pp.vii -viii).

## **2.12 Theoretical framework of study**

The theoretical framework guiding this study is that when teachers benefit from professional development that is relevant to their needs, it would lead to the acquisition of new knowledge and skills that impacts their teaching methods, improve student learning and achieving good results.

Supovitz (2001) suggested that the logic behind professional development is that high-quality professional development will change teaching in classrooms, which will, in turn, increase student achievement. In addition, some (Guskey & Sparks, 2002) have suggested including teachers' knowledge as a new mediating variable between professional development and student learning in the framework since effective professional development shapes not only teaching practice but also teachers' knowledge. Moreover, recent literature has claimed that teachers' knowledge gained from professional development influences teaching practice (Blank & Alas, 2008; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Desimone (2009) included teachers' knowledge as well as attitudes and beliefs as critical factors affecting teaching practice.





**Figure 2:** Desimone’s (2009) conceptual framework for studying the effect of professional development on teachers and students. Source: Kang et al. (2013).

Considering the current literature, the comprehensive theoretical framework synthesized by Desimone (2009) is convincing since it contains:

- 1) Explanation of effective professional development;
- 2) All the path from effective professional development to student achievement; and.
- 3) Contextual factors.

Figure 2 above (p.59) represents Desimone’s core conceptual framework for studying the effect of professional development on teachers and students.





## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

The previous chapter reviewed literature relevant to this study. This chapter describes the methodology (research procedures and techniques) used to provide data to investigate them. The descriptive issues that were considered included the research approach and design, population and sampling, instruments and data collection procedure, and a description of how the data were analyzed.

#### 3.2 Research Approach

A quantitative research approach was used to carry out the study. Quantitative data on teachers professional development programmes put in place for basic schools in the district were used. The data included the number of professional development programmes teachers have attended within the past three years, and how these programmes have improved their professionalism and performance. The quantitative data were first coded and the SPSS Statistical Software was employed to run various statistical measures. Appropriate frequencies, percentages and tables were generated through the application of the software which was used because of its effective data management capability.

#### 3.3 Research Design

A case study was the research design that was used in this research. The research considered teachers performance in relation to their professional development as a case. Alhassan, (2006) notes that case studies involve critical studies of an aspect of a problem. The case study approach is particularly appropriate for individual researchers as it gives



the opportunity for one aspect of a problem to be studied in some depth within a limited time scale. It involves an intensive investigation on the complex factors that contribute to the individuality of a social unit. A case study is used to understand the life cycle or an important part of the life cycle. It is concerned principally with the interaction of factors and events by careful study of practical instances to obtain a full picture of the whole. The case study method also allows the researcher to concentrate on a specific instance or situation, and to identify the various interactive processes at work.

A case study was chosen for this research considering the limited time available in relation to the volume of work to be covered. It helped the researcher to investigate deeply into the problem within the Sagnarigu District and to practically obtain solutions to the problem under study.

### **3.4 Population of the study**

The population of this study comprised teachers from ten (10) Junior High Schools in the Sagnarigu District who have participated in Professional Development Programmes. A total of one hundred and fifty (150) teachers. These teachers were made up of one eighty-five (85) females and sixty-five (65) males. Also, the study population was made up of one hundred and forty (140) subject teachers and ten (10) headteachers from the selected schools.

### **3.5 Setting**

The research was carried out in the Sagnarigu District of the Northern region of Ghana. Created in 2012, it is one of the youngest districts in the region and has sixty two (62) Junior High Schools. Most teachers in this district have been at their current post for the past three years. Even though the district is one of the youngest in the region, it has



always been trying its best to raise their students' performance in the Basic Education Certificate Examination (BECE) every year; hence, the need to upgrade its teachers professionally.

### **3.6 Sample and Sampling techniques**

The researcher employed the purposive sampling technique to select the ten Junior High schools for the study. Purposive sampling, also known as judgmental, selective or subjective sampling, is a type of non-probability sampling technique. A purposive sample is where a researcher selects a sample based on their knowledge about the study and population. The participants are selected based on the purpose of the sample. The main objective of a purposive sample is to produce a sample that can be logically assumed to be representative of the population. This is often accomplished by applying expert knowledge of the population to select in a nonrandom manner a sample of elements that represents a cross-section of the population (Palys, 2008). However, simple random sampling was used to select the ninety (90) subject teachers for the study. The ten Junior High Schools used in the study were purposively selected because of their participation in professional development programmes in the district. Most of the teachers not only had professional development experience, but also consistently taught the same subject for three consecutive years; thus making them suitable respondents for the study. The simple random sampling technique was employed to select individual teachers from a school via a lottery system in which each teacher in the ten schools was assigned a number written on a card. These cards were placed in a container and one card was drawn at a time. After each draw, the cards were reshuffled before selecting the next one until the nine (9) subject teachers required for the study from each school was obtained to give the total of



ninety (90) subject teachers. Like the ten schools, the ten (10) headteachers were purposively selected because of their firsthand knowledge of their teachers' performance and their students' performance in past BECE results. They are also responsible for selecting which teachers in their schools attend various workshops and in-service training.

### **3.7 Instrumentation**

A questionnaire was developed for the collection of data in this study. It comprised five sections that elicited information on (i) personal biodata, (ii) courses available for teachers' professional development in the Sagnarigu District, (iii) lesson delivery methods teachers use, (iv) competence level of teachers and (v) factors affecting teachers' performance after professional development training.

#### **3.7.1 Questionnaire**

In this study, a questionnaire was sent to participating teachers to answer on previous professional development programmes they attended over the past three years. Invented by Sir Francis Galton, a questionnaire is a data collection instrument consistent of a series of questions and other prompts for the purpose of gathering information from respondents. It is a series of questions used for gathering information that is used to benefit a single individual. While more than one individual might complete the questionnaire, the responses are not aggregated for analysis (McKee, 2015).

The questionnaire comprising five (5) sections was administered to ten (10) teachers from each of the selected schools. The questions which provided multiple choice answers required respondents to provide appropriate answers to each question with regard to their biodata, courses available for Teachers' Professional Development in the District, lesson



delivery methods they use, competence level of teachers and factors affecting teachers' performance after Professional Development Training over the past three (3) years.



## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

Chapter three presented the methodology used to provide data which were analyzed and inferences drawn from them. This chapter contains the analysis and discussion of the data, summary and presentation of the main findings of the study based on the objectives set to be achieved. The data analysis is in two parts. Section 4.2 deals with the demographic characteristics of the respondents. It has been structured and presented along the following: age, highest educational attainment, professional status, and number of years in service. Section 4.3 covers the main themes of the research questions raised to guide the study; while Section 4.4 elucidates the key findings in relation to research objectives.

#### 4.2 Demographic Characteristics of Respondents

Tables 4.2(a) to (e) present respondents' age, their highest educational attainment, professional status, rank, and number of years in service.

**Table 4.2 (a): Age distribution of survey respondents**

Age group	Number of respondents	Percentage of respondents (%)
25 - 30 years	31	34.4
31 -36 years	29	32.2
37 - 42 years	17	18.9
43 - 48 years	11	6.7
49 - 54 years	12	7.8
Total	100	100

Source: Field survey 2016



Table 4.2 (a) on page 64 shows that seventy-seven percent (77%) of respondents were aged between 25-42 years with the remaining twenty-three percent (23%) falling between the 43-54 age group. Sixty-seven percent (67%) of respondents were aged between twenty-five and thirty-six years; an indication of a youthful teacher population among respondents.

**Table 4.2(b): Highest education attained by respondents**

Certificate or degree obtained	Number of respondents	Percentage of respondents (%)
SSSCE/ WASSCE	0	0
Certificate/Diploma/ Higher National Diploma	20	20
First degree (BA, BSc, BEd, etc.)	63	63
Second degree (MA, MSc, M.Phil, MEd, MBA, etc.)	17	17
Other(s)	0	0
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Field survey 2016

Table 4.2 (b) above shows that with regard to highest education achieved by respondents, twenty percent (20%) had at least a recognized Teachers' Certificate or Diploma. In addition, sixty-three percent (63%) of them had a first degree, while seventeen percent (17%) were second degree holders. This indicated that majority of teachers in the district had obtained a first degree in their field of study. From these



statistics, it can be surmised that respondents were not just education professionals; but also of high academic standing.

Thus, regardless of professional development training courses or programmes, it is expected that these teachers would perform well on the job.

**Table 4.2(c) Professional status of respondents**

Rank	Number of respondents	Percentage of respondents (%)
Certificate/Diploma Professional teacher	38	38
Certificate/Diploma non-professional teacher	3	3
Graduate professional teacher	54	54
Graduate non-professional teacher	5	5
Total	100	100

Source: Field survey 2016

From table 4.2 (c) above, ninety-two (92%) percent were professional teachers with eight percent (8%) being non-professional teachers. Indeed, the objective of the Ghana Education Service is being achieved since the majority of teachers are professional





teachers with a few being non-professional. The district for the past two years has made it a point to remove all non-professional teachers from its payroll. To this end, non-professional teachers were encouraged to appropriately upgrade themselves to desired Ghana Education Service' Professional Standards.

**Table 4.2(d) Respondents' years of service as teachers**

Years as a teacher	Number of respondents	Percentage of respondents (%)
1 – 5 years	29	29
6 – 10 years	28	28
11 -15 years	18	18
16 – 20 years	18	18
Above 20 years	7	7
Total	100	100

Source: Field survey 2016

Table 4.2(d) above indicates that fifty-seven percent (57%) of respondents had taught between one and ten years, thirty-six percent (36%) between eleven and twenty years and seven percent (7%) above twenty years. This is an indication that the majority



of respondents have been on the job for the last ten years and must have at one point over the period undergone or received professional development training programmes.

### 4.3 Research questions and analysis

**4.3.1 Research question 1:** How effective are professional development programmes for enhancing the performance of teachers?

**Table 4.3.1(a): Professional Development Training Programmes available to teachers**

Type of Professional Development training	Number of respondents	% of respondents
Thematic Workshops	47	47
In-service Training	22	22
Distance Education Programmes	31	31
Total	100	100

Source: Field Survey, 2016

Table 4.3.1(a) above shows professional development training programmes available to teachers. When asked about the types of teacher professional development courses that were available to teachers in Sagnarigu District, 47% of respondents chose thematic workshops, 22% for in-service training and 31% for distance education. Generally, teachers considered every training session as ‘workshops’ (See Table 4.3.1a



on page 68). It is therefore not surprising that most of the respondents chose workshops as the professional development courses available to them.

Queried further on which of these available programmes were most patronized by teachers, the result was rather interesting. Fifty-six percent (56%) of respondents were of the opinion that distance learning was the most patronized, followed by thematic workshops with thirty-five percent (35%) and in-service training with nine percent (9%). Due to the restriction on the number of teachers who can proceed on study leave with pay, teachers find it very difficult to leave their classrooms for advanced studies. They therefore resort to enrolling in distance learning courses to upgrade themselves. The patronage of distance education programmes was high because of the certificates awarded at the end of such courses or programmes.



**Table 4.3.1 (b): Teachers' perception of objectives for professional development programmes**

Perceived objectives for organizing professional development training programmes	Number of respondents	Percentage of respondents (%)
1. To effect specific changes in teachers	17	17
2. For teacher to learn new teaching methods	22	22
3. To improve teachers' professionalism	55	55
4. To determine teachers' promotion within the Ghana Education Service	6	6
Total	100	100

Source: Field survey, 2016

Table 4.3.1(b) above shows teachers' perception of objectives of professional development programmes. Respondents were asked what they thought were the main objectives for organizing professional development programmes for teachers. Seventeen percent (17%) of respondents thought it was to effect specific changes in teachers. Twenty-two percent (22%) of respondents opined that professional development programmes were for teachers to learn new things regarding their work. Fifty-five percent (55%) of those who responded to this question were of the opinion that these programmes were primarily organized to improve the professionalism of teachers while



another six percent (6%) of them thought it was basically to determine the promotion of teachers within the service (see Table 4.3.1b on page 70). The perception of teachers with regard to the underlying reasons for the organization of a Professional Development Training Programme therefore determines their attitude towards it in terms of active participation and later use of knowledge and skills set acquired from the training.

**Table 4.3.1 (c): Teachers' satisfaction level with professional development courses**

Level of satisfaction	Number of respondents	Percentage of respondents (%)
Satisfied	33	33%
Not satisfied	67	67%
Total	100	100

Source: Field survey, 2016

Table 4.3.1 (c) above indicates the level of teachers' satisfaction with professional development courses. On whether they were satisfied with professional development courses currently organized for them, thirty-three percent (33%) of them expressed satisfaction with current courses. Sixty-seven percent (67%) of them were however not satisfied (see Table 4.3.1c above). The complaints from most teachers are that their needs are not assessed before these programmes are organized for them. As a result, they attend these training programmes half-heartedly and the objectives for the training programmes end up not being met.

The Sagnarigu District Directorate of the Ghana Education Service has been organizing professional development courses for its teachers. However, due to the high number of schools in the district currently, it has not been able to deliver the required



numbers and varieties of training due to financial constraints. Notwithstanding the dissatisfaction with current Professional Development Programmes currently being organized for teachers, ninety-seven percent (97%) of respondents still recommended the running of these programmes for teachers in recognition of their being essential for enhancing their professionalism.

**Table 4.3.1 (d): Gender preference in selection of teachers for professional development courses**

Gender preference	Number of respondents	Percentage of respondents (%)
Males preferred over females	47	47
Males not preferred over females	53	53
Total	100	100

Source: Field survey, 2016

Table 4.3.1 (d) above shows the gender preference in the selection of teachers for professional development courses. The study also sought to confirm the assertion among some teachers that, in the selection of teachers for professional development courses, male teachers were preferred to their female counterparts and therefore asked respondents whether they agreed to that assertion. Fifty-three percent (53%) of respondents did not agree with it, while the remaining forty-seven percent (47%) agreed (see Table 4.3.1(d) above). The majority disagreeing with the assertion that male teachers were preferred to their female counterparts in the selection of teachers for professional development courses was significant as females constituted 37% of the total number of respondents



and gave an indication that there was no gender bias in the selection of teachers for professional development programmes and courses.

**4.3.2 Research question 2:** To what extent does professional development experience impact on teachers' teaching methods and use of teaching and learning materials?

**4.3.2.1 Lesson delivery methods used by teachers**

**Table 4.3.2 (a): Most utilized teaching delivery method by teachers**

Teaching method	Number of respondents	Percentage of respondents (%)
Group discussion	15	15
Role plays	2	2
Lectures	34	34
Demonstrations	49	49
Total	100	100

Source: Field survey, 2016

Table 4.3.2(a) above shows the most utilized teaching delivery method by teachers.

Of interest to this study was the lesson delivery methods mostly used by teachers in teaching. Respondents were asked to choose from among the following (i) group discussion, (ii) role plays, (iii) lectures and (iv) demonstrations. The responses indicated that 2% of teachers employed role plays as the most used teaching method. Fifteen percent (15%) of respondents indicated that group discussions were the most used teaching method, while another 34% indicated that the lecture method was the most commonly used in lesson delivery. The majority of respondents comprising 49% of



respondents however indicated that demonstrations were the most used teaching delivery method which is commendable (see Table 4.3.2a on page 73).

When teachers employ demonstrations in their lesson delivery, they are able to carry students with them towards the desired lesson outcomes. This is because as the students observe what the teacher does and how he or she does it, they are better able to comprehend the lessons; especially when given the chance to have hands-on practice of what they observed their teacher doing. Students who have been taught with the demonstration method have been found to have high achievement scores than their counterparts in the control group that were taught with the conventional lecture method of teaching (Daluba 2013). In a study using the demonstration method, Idoko and Oladimeji (2002) observed that the students in the experimental group who were allowed to interact and allowed to carry out activities in the group performed better than those in the control group who were mere passive listeners in their agricultural classes because it encouraged students – teachers, students – students and students – material interactions.





**Table 4.3.2 (b): Regularity of use of teaching and learning materials by teachers**

<b>Use of teaching and learning materials</b>	<b>Number of respondents</b>	<b>Percentage of respondents (%)</b>
Teaching and learning materials are regularly used	48	48
Teaching and learning materials are fairly used	8	8
Teaching and learning materials are sometimes used	22	22
Teaching and learning materials are rarely used	22	22
Total	100	100

Source: Field survey, 2016

Table 4.3.2 (b) above indicates that forty-eight percent (48%) of respondents stated that teaching and learning materials were used regularly. Eight percent (8%) responded that they were used fairly regularly, while twenty-two percent (22%) of them responded that TLMs were only sometimes used. Another twenty-two percent (22%) responded that teaching and learning materials were rarely used.

These responses indicate that less than half of the teachers in the study use teaching and learning materials regularly in the delivery of their lessons. Teaching and learning materials are supposed to enhance pupils understanding of the lessons they are taught under various subjects. Teaching materials can support student learning and increase student successes. Ideally the teaching materials would be tailored to the content in which



they are being used, the students in whose class they are being used and the teacher using them. Learning materials are important because they can significantly increase student achievement by supporting student learning as they may provide a student with important opportunities to practice a new skill gained in class. This process aids in the learning process by allowing the student to explore the knowledge independently as well as providing repetition (Education Guyana, 2016). The importance of teaching and learning materials both in enhancing learning outcomes of students and performance of teachers can thus not be overemphasized. With less than half of respondents indicating that teaching and learning materials are regularly used, one can only guess what the effect would be on students' performance in the long run compared with their peers who experience better learning outcomes through the regular use of such materials if this is a district wide phenomenon.

**Table 4.3.2 (c): Effects of use of TLMs on teachers and pupils**

Effect of TLM use	Number of respondents	Percentage of respondents (%)
Good examination results are achieved by pupils	22	22
Pupils understand lessons better and quickly	67	67
Teachers feel a high sense of achievement	11	11
Total	100	100

Source: Field survey, 2016



Table 4.3.2 (c) on page 76 shows that fifty-two percent (52%) of respondents indicated that teachers were using teaching and learning materials sufficiently in their lesson delivery with the remaining forty-eight percent (48%) disagreeing with that assertion. This led to study to find out the effects of regular use of teaching and learning materials on students and teachers. It is interesting to note that two-thirds (67%) of respondents were convinced that regular use of teaching and learning materials had the effect of pupils understanding their lessons better and quickly, twenty-two percent (22%) of them indicated that it made pupils to achieve good examination results, while 11% indicated that teachers felt a high sense of achievement through the use of teaching and learning materials (see Table 4.3.2c on page 76).

"Teaching materials" is a generic term used to describe the resources teachers use to deliver instruction. Teaching materials can support student learning and increase student success. Ideally, the teaching materials will be tailored to the content in which they are being used, to the students in whose class they are being used, and the teacher. Teaching materials come in many shapes and sizes, but they all have in common the ability to support student learning.

Learning materials are important because they can significantly increase student achievement by supporting student learning. For example, a worksheet may provide a student with important opportunities to practice a new skill gained in class. This process aids in the learning process by allowing the student to explore the knowledge independently as well as providing repetition. Learning materials, regardless of what kind, all have some function in student learning. With just a little over half of teachers using teaching and learning materials in their lesson delivery sufficiently, the benefits of



effectively using teaching and learning materials on both teachers and pupils may be lost in schools that participated in the study.

**4.3.3 Research question 3:** To what extent does professional development experience enhance the competence level of teachers?

**Competency level of teachers**

**Table 4.3.3 (a): Effects of professional development courses on competency enhancement**

Professional development courses enhance teachers competency	Number of respondents	Percentage of respondents (%)
Yes	94	94
No	6	6
Total	100	100

Source: Field survey, 2016

Table 4.3.3(a) above shows the effect of professional development courses on competency enhancement of teachers. Of interest to the study was whether teachers experienced and exhibited enhanced competency after attending professional development courses. Competencies are defined as “the set of knowledge, skills, and experience necessary for future, which manifests in activities” (Katane 2006). Gupta (1999) defines competencies as “knowledge, skills, attitudes, values, motivations and beliefs people need in order to be successful in a job.” The common understanding related to teachers’ competencies is divided into three main areas as field competencies, pedagogical competencies and cultural competencies. Teachers’ professional



competencies can be composed of different dimensions other than the three main areas (Bulajeva, 2003).

Ninety-four percent (94%) of all respondents indicated that teachers attending professional development courses exhibited enhanced competencies after such courses (see Table 4.3.3(a) on page 78). This agrees with results from a survey study by Somprach et al. (2012) in Thailand aimed to diagnose the impact of training on teachers' competencies. The study which was of descriptive nature compared the competencies of teachers having no training and trained teachers. Teachers Competencies Measurement Scale (TCMS) was used to compare competencies of both cohorts. Trained teachers showed a significant difference in pedagogical competencies, management and assessment competencies and research competencies. It depicted that in all the categories trained teachers were more competent than their colleague teachers having no professional development training.

**Table 4.3.3(b): Post professional development training rating of teachers' competency**

Competency rating	Number of respondents	Percentage of respondents (%)
Excellent	20	20
Very good	59	59
Good	21	21
Fairly good	0	0
Total	100	100

Source: Field survey, 2016



Table 4.3.3(b) on page 79 shows that respondents were next asked to rate the competency level of teachers attending professional development courses if they thought such courses enhanced their competency; the ratings being excellent, very good, good and fairly good. Twenty percent (20%) of respondents opined that teachers competency after professional development courses was excellent. Fifty-nine percent (59%) of them rated them as very good while the remaining twenty-one percent (21%) rated them as good (see Table 4.3.3b on page 79). The import of these responses is that professional development courses enhance teacher competency. At every level, Teachers' competencies to improve their performance are of great importance. Their competencies not only affect their values, behaviors, communication, aims and practices they also support professional development and curricular studies. ( Selvi, 2010).



**Table 4.3.3 (c): Factors that inform preference for teachers' of various background training**

Preference	Number of respondents	Percentage of respondents (%)
A competent teacher regardless of background training	36	36
An experienced teacher based on years of service	12	12
A teacher who has had formal professional teacher training	32	52
A teacher who has not had formal teacher training	0	0
Total	100	100

Source: Field survey, 2016

Table 4.3.3(c) above indicates that teachers are clearly one of schools' most important resources and quality teachers are one of the most important school related factors found to facilitate student learning, and likely explain at least some of the difference in effectiveness across schools (Aaronson, Barrow, and Sander 2007; Kane, Rockoff, and Staiger 2008; Rivkin, Hanushek, and Kain 2005; Rockoff 2004). Teacher preferences make it easier for some types of schools to attract candidates for open positions (Boyd, Lankford, Loeb, Ronfeldt, and Wyckoff 2011) and easier for some types of schools to retain their effective teachers because they are more appealing places to work.



It is against this background that the study next sought to find out what factor or factors would inform respondents' preference of one teacher over another with regard to competency and background training. Thirty-six percent (36%) of respondents preferred a competent teacher regardless of his or her background training. Twelve percent (12%) of them preferred a teacher whose competency and experience was based on years of service, while the remaining fifty-two (52%) simply preferred a teacher who has had formal professional teacher training (see Table 4.3.3c on page 81). The responses indicate that respondents prefer teachers with professional teacher training background and competent teachers in short order; most probably because of occupational solidarity; because empirical evidence from privately owned and run basic schools perform better than public schools even though the latter are almost always invariably staffed by professional trained teachers.

**Table 4.3.3 (d): Satisfaction with performance of colleague teachers**

Satisfaction level with performance	Number of respondents	Proportion of respondents (%)
1. Very satisfied	36	36
2. Satisfied	42	42
3. Fairly satisfied	22	22
4. Barely satisfied	0	0
5. Not satisfied	0	0
Total	100	100

Source: Field survey, 2016





Table 4.3.3(d) on page 82 shows that on the competency level of teachers, respondents were next asked whether they were satisfied with the performance of teachers in their respective schools using a rating of very satisfied, satisfied, fairly satisfied, barely satisfied and not satisfied. Thirty-six percent (36%) of respondents were very satisfied with the performance of teachers in their schools. Another forty-two percent (42%) were satisfied with the performance of their colleagues in school while the remaining twenty-two percent (22%) were fairly satisfied with the performance of their colleagues in school (see Table 4.3.3d on page 82). Nearly 80% of respondents were satisfied with the performance of their colleagues, an indication that professional development courses were having a positive influence on teachers.



**4.3.4 Research question 4:** What contributes to the poor performance of teachers after attending professional development trainings?

**4.3.4.1 Factors affecting teachers' performance after professional development training.**

**Table 4.3.4 (a): Factors accounting for poor post professional development training performance**

Influencing factor	Number of respondents	Percentage of respondents
1. Programmes do not address teachers' classroom needs.	47	47%
2. Reluctance of beneficiary teachers to apply what has been learnt from trainings.	48	48%
3. Poor targeting of beneficiaries of training programmes.	5	5%
Total	100	100

Source: Field survey, 2016

Table 4.3.4(a) above indicates that while it is generally assumed that teachers who undergo professional development training would perform well or better on the job, this is not always the case. This led the study to find out reasons for teachers' poor performance even after going through professional development training. Forty-seven percent (47%) of respondents indicated that the poor performance could be attributed to failure of professional development programmes to address the needs of teachers in the



classroom. Another forty-eight percent (48%) of them opined that it was due to the reluctance of teachers to apply what they had learned from the training programmes; while the remaining five percent (5%) of respondents thought it was due to poor targeting of beneficiaries of training programmes (see Table 4.3.4a on page 84).

This brings to the fore, the need for post training follow-up on trainees to ascertain whether they are applying what they have learned, whether they are applying the new knowledge and skills acquired in the right context, and what emerging challenges they face in the applications of the new skills set.

**Table 4.3.4 (b): Availability of training materials to beneficiaries after training programmes**

Training materials are made to training beneficiaries after professional development training programmes	Number of respondents	Percentage of respondents (%)
1. Yes	10	10
2. No	87	87
3. Sometimes	3	3
Total	100	100

Source: Field survey, 2016

Table 4.3.4(b) above shows that the study next proceeded to find out from respondents if training materials were made available to teachers to use after training, resulting in revealing responses. Ten percent (10%) of respondents indicated training materials were made available to them to use after training. Interestingly, eighty-seven



percent (87%) of respondents were emphatic that training materials were not made available to them for use after training. The remaining three percent (3%) however said training materials were sometimes made available to them for their use after professional development training programmes (see Table 4.3.4b on page 85). It thus seems most participants of training programmes are constrained in their ability to apply what they have learned due to unavailability of training materials to them after training.

**Table 4.3.4 (c): Factors contributing to poor performance of teachers after initial training**

Contributory factors	Number of respondents	Percentage of respondents (%)
1. Poor school environment.	17	17
2. Inadequate teaching and learning materials.	50	50
3. Poor supervision of teachers by designated officers.	17	17
4. Teacher absenteeism	10	10
5. Student/pupil absenteeism	6	6
Total	100	100

Source: Field survey, 2016



Table 4.3.4(c) on page 86 shows that respondents were asked what they thought contributed to the poor performance of teachers after initial training. Seventeen percent (17%) of them attributed this to poor school environment. Fifty percent (50%) held the view that it was due to inadequate teaching and learning materials. Another seventeen percent (17%) of them indicated that it was due to poor supervision of teachers by designated supervising officers. Ten percent (10%) of respondents were of the view that teacher absenteeism contributed to the poor performance of teachers after initial training, while the remaining six percent (6%) attributed this to student absenteeism (see Table 4.3.4c on page 86).

These responses suggest the importance of providing or making teaching and learning materials available to teachers and students. It is also important to maintain an environment that is conducive for both teaching and learning and to provide leadership in the school that ensures all members of the school community; that is, both teachers and pupils are playing their respective roles effectively.



**Table 4.3.4 (d): Responsibility for poor performance of teachers over time**

Who to blame?	Number of respondents	Percentage of respondents (%)
1. Officers responsible for teachers' professional development programmes	67	67
2. Teachers themselves	11	11
3. School heads	1	1
4. Unresponsive pupils to innovations applied by teachers.	17	17
5. Others (with reasons)	4	4
Total	100	100

Source: Field survey, 2016

Table 4.3.4(d) above shows that participating teachers who was to blame for the poor performance of some teachers over time, a question that evoked interesting and revealing answers. About sixty-seven percent (67%) of the respondents thought it was officers responsible for professional development programmes who were to blame. Eleven percent (11%) of them were of the view that the teachers performing poorly over time had themselves to blame, while one percent (1%) opined that school heads were to blame. Seventeen percent (17%) however thought it was the unresponsiveness of pupils



to innovations applied by teachers in the classroom setting (see Table 4.3.4d on page 88). These responses suggest that the caliber of training officers, quality of their delivery and relevance of the courses they administer are determinants of improved professional development. Their pivotal role in the quest for improved teacher professionalism can therefore not be overemphasized and the training division of district offices must be adequately resourced with the right personnel and materials. Four percent (4%) of respondents however had different views and gave the reasons that included not just who but what could be blamed for poor performance of teachers over time. These are summarized below:

- (i) Lack of proper supervision and motivation for hard working teachers.
- (ii) Poor remuneration.
- (iii) Parents and supervisors.
- (iv) Delays in paying teachers' salaries after posting.
- (v) Government policies that do not address the felt needs of teachers.

#### **4.4 Key findings in relation to research objectives**

The main reason of this study is to arrive at a conclusion with reference to the research questions and objectives of the study. These objectives were:

- (i) to identify the type of professional development programmes put in place for teachers in the Sagnarigu District,
- (ii) to assess the outcomes of professional development experience on teachers' practice with respect to teaching methods and use of teaching and learning materials,
- (iii) to determine the relevance/usefulness of professional development programmes with respect to improving the performance of teachers in the Sagnarigu District, and



(iv) to ascertain the factors/reasons responsible for teachers' poor performance after attending professional development programmes.

**Objective one: To identify the type of professional development programmes put in place for teachers in the Sagnarigu District.**

This entails the various training programmes teachers have been undergoing to improve their performance. In relation to this objective, the professional programmes made available for teachers in the district were in service trainings, workshops, and distance courses. It was found out that teachers attend workshops and in service trainings in order to broaden their knowledge and skills in carry out their duties as teachers. It was also revealed that most teachers preferred courses that at the end they will be awarded certificates.

**Objective Two: Assess the outcome of professional development experience on teachers' practice with respect to teaching methods and use of teaching and learning materials**

The findings based on this objective were that professional development programmes play an important role in the performance of teachers. Teachers after their initial professional trainings at the college cannot sustain their ability to perform well if they are not given professional trainings along their career. Admittedly, there may be other factors contributing to teachers' performance; but professional development programmes still play a major role in improving their performance.





**Objective 3: To determine the relevance/usefulness of professional development programmes with respect to improving the performance of teachers in the Sagnarigu District.**

With reference to this objective, it was found out that professional development programmes were given to teachers sparingly. It is expected that every teacher should be able to at least attend one professional development programme in a term; but this is not the case of the district. Teachers are available and willing to attend these programmes but they are simply not available. Unfortunately, when it comes to the selection of teachers for professional development programmes, some teachers are preferred to others by headteachers. They justify this by saying the basic criterion for selecting these teachers is how they have put the knowledge acquired from previous training programmes to use to improve teaching, learning and general administration of the school.

**Objective 4: To ascertain the factors/reasons responsible for teachers' poor performance after attending professional development programmes.**

In relation to this objective, it was found out that professional development programmes are meant to address teachers' needs and to improve their performance in the classroom. These programmes are usually organized by the training officer and the circuit supervisors of the district. Sometimes school based in-service training programmes are also organized by the schools from the capitation grants. It was also found that some of the training packages for teachers basically did not address their needs in the classroom and could be described as a waste of time. They would prefer that training programmes



emanate from needs assessment that reflects the collective needs of teachers in solving problems and improving teaching and learning in the classroom.

#### **4.5 Chapter summary**

This chapter has presented the results from the data collected and analyzed. It has also presented the discussion of the results, the key findings of the study based on the objectives set to be achieved in the study and the chapter summary. The presentations were based on the demographic related issues, and the four main research questions raised to guide the study.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The previous chapter examined and analyzed the data that was collected from respondents with a view to identifying patterns from which relevant inferences and conclusions could be drawn. This concluding chapter presents the main findings of this study with regard to the effects of professional development on the performance of teachers and pupils in the Sagnarigu District. It is divided into four (4) sections comprising an introduction, summary, conclusion and some recommendations for further study/action/policy.

#### 5.2 Summary

The research had four objectives: (a) to identify the type of professional development programmes put in place for teachers in the Sagnarigu District, (b) to assess the outcomes of professional development experience on teachers' practice with respect to teaching methods and use of teaching and learning materials (c) to determine the relevance/usefulness of professional development programmes with respect to improving the performance of teachers in the Sagnarigu District, and (d) to ascertain the factors/reasons responsible for teachers' poor performance after attending professional development programmes. It was envisaged that achieving these objectives would address the main problem and focus of this research, that is, poor post professional development training performance of teachers in Sagnarigu District.

The theoretical framework (hypothesis) guiding this study is that when teachers benefit from professional development that is relevant to their needs, it would



lead to the acquisition of new knowledge and skills that impacts their teaching methods, improve student learning and achieving good results. This resonates well with Desimone's (2009) conceptual framework for studying the effect of professional development on teachers and students. It was in this light that a review of relevant literature was made with regard to existing body of knowledge on the effects of professional development on teachers' performance.

A total of one hundred (100) teachers comprising ten (10) teachers from ten selected Junior High Schools in the Sagnarigu District were selected for this study. The purposive sampling technique was used to select the ten Junior High schools for the study. Simple random sampling was however used to select the individual teachers from a school for the study. Primary data for analyses were obtained through a questionnaire and structured interview; and the data analyses was done employing advanced SPSS. The results were then displayed using tables and percentages for comparative analyses.

With regard to the first research question which looked at types of professional development programmes are effective in enhancing the performance of teachers, 47% of respondents chose thematic workshops, 22% for in-service training and 31% for distance learning. This was in contrast to the level of patronage of these programmes by teachers, as 56% of respondents indicated that distance learning was the one most patronized. Two reasons could account for the contrast between what professional development programmes teachers find effective in enhancing their performance and which of them they prefer to attend. Firstly, due to the restriction on the number of teachers who can proceed on study leave with pay, teachers find it very difficult to leave their classrooms for advanced studies for extended periods. They therefore resort to enrolling in distance



learning courses to upgrade their academic standing, because an advanced degree is now a requirement for senior management positions in the Ghana Education Service. Secondly, the patronage of distance learning programmes was high because the certificates awarded at the end of such courses or programmes are recognized at both professional and academic levels. While ninety percent (90%) of respondents thought professional development programmes improved their professionalism, only 33% of them were satisfied with the programmes. This dissatisfaction seems to emanate from unmet needs and aspirations as complaints from most teachers are that their needs are not assessed before these programmes are organized for them. As a result, they attend these training programmes half-heartedly and the objectives for the training programmes end up not being met.

The dissatisfaction with professional development programmes by respondents in this research agrees with the findings of a study by Darling- Hammond et al., (2009), in which they found that while over ninety percent (90%) of teachers attended professional development courses in the previous year, the majority also reported that they did not find them useful. This is because most of the professional development programmes they participated in happened in a workshop-style model which research shows has little to no impact on student learning or teacher practice (Darling-Hammond et al., 2009). According to the National Professional Development Centre on Inclusion (2008) there is a growing body of empirical evidence suggests that professional development is more likely to be effective and enhance teaching and learning when it has the following elements:



1. Professional development approaches are focused on professional practices and consist of content-specific rather than general instruction.
2. Professional development is aligned with instructional goals, learning standards, and the curriculum materials that practitioners use in practice.
3. Learning opportunities are intense, sustained over time, and include guidance and feedback on how to apply specific practices through methods such as coaching, consultation, or facilitated collaboration (for example, communities of practice, teacher study groups). The posture of respondents did not suggest that these vital elements were met in the professional development programmes they attended.

The second research question focused on the extent to which professional development experience impacts on teachers' teaching methods and use of teaching and learning materials. Forty-nine percent (49%) of respondents in this research indicated that following professional development training programmes, they employed demonstrations as the main teaching method. Another thirty-four percent (34%) preferred the lecture method. Fifteen percent (15%) of respondents indicated that group discussions were the most used teaching method, while 2% employed role plays as their preferred teaching method (see Table 4.3.2a on page 73).

Teaching methods denote various strategies that the teacher uses to deliver his/her subject matter to the students in the classroom based on the instructional objectives to bring about learning. Teaching methods aids learning and help to communicate ideas and skills to the students. There are several teaching methods to use in the classrooms; it is left for the teacher to use the ones most appropriate for the lesson. These methods if properly used will enhance teaching and learning and bring about desired changes in the



students. While the teacher's task is to ensure that learning is effective, one major way to achieve this is the use of appropriate teaching methods. Teaching methods are used to facilitate students learning and satisfaction. A variety of the use of teaching methods is a must for teachers if learning is to be effective and efficient, hence there is need for a good teacher to be multi-talented in other to be conversant with the use of various teaching methods in the teaching and learning process. A combination of teaching methods is thus encouraged for effective teaching (Dorgu, 2015).

A number of reasons may account for why approximately half of the respondents in this study used demonstrations as their preferred teaching method. When teachers employ demonstrations in their lesson delivery, they are able to carry students with them towards the desired lesson outcomes. This is because as the students observe what the teacher does and how he or she does it, they are better able to comprehend the lessons; especially when given the chance to have hands-on practice of what they observed their teacher doing. The gains of using demonstration method in teaching lies in the fact that it bridges the gap between theory and practice, enables learners to become good observers and generate their interest; students see immediate progress as a result of a correct effort and it enables the teacher to teach manipulative and operational skills. Secondly, being a newly created District, teachers in Sagnarigu District are not immune to resource constraints associated with the creation of new administrative districts. There may therefore not be enough resources for students to participate in lessons as individuals or small groups in subjects that require a demonstration of their knowledge, understanding, abilities and skills. Thirdly, the nature of the subjects respondents teach, the time allotted



for the subjects and the classroom/school environment may all be factors that make the use of demonstrations as the most realistic and efficient method of teaching.

On the effects of professional development on the use of teaching and learning materials, forty-eight percent (48%) of respondents reported the regular use of teaching and learning materials in their lesson delivery (see Table 4.3.2b on page 75). With less than half of respondents indicating that teaching and learning materials are regularly used, one can only guess what the effect would be on students' performance in the long run compared with their peers who experience better learning outcomes through the regular use of such materials if this is a district wide phenomenon. The comprehension and performance of students compared with their peers who are taught with the requisite teaching and learning materials would definitely suffer.

The third research question asked to what extent professional development experience enhances the competence level of teachers. Ninety-four percent (94%) of respondents indicated that teachers attending professional development courses exhibited enhanced competencies after such courses (see Table 4.3.3a on page 78). This agrees with results from a survey study by Somprach et al. (2012) in Thailand aimed to diagnose the impact of training on teachers' competencies. The study which was of descriptive nature compared the competencies of teachers having no training and trained teachers. Teachers Competencies Measurement Scale (TCMS) was used to compare competencies of both cohorts. Trained teachers showed a significant difference in pedagogical competencies, management and assessment competencies and research competencies. It depicted that in all the categories trained teachers were more competent than their colleague teachers having no professional development training.





Respondents confirmed the assertion in their rating of post professional development training rating of teachers. Twenty percent (20%) of respondents opined that teachers competency after professional development courses was excellent. Fifty-nine percent (59%) of them rated them as very good while the remaining twenty-one percent (21%) rated them as good (see Table 4.3.3b on page 79). The import of these responses is that professional development courses enhance teacher competency. Nearly 80% of respondents buttressed this assertion by expressing satisfaction with the performance of their colleagues, an indication that professional development courses were making an impact on teachers (see Table 4.3.3c on page 81). The responses are in stark contrast to respondents' earlier assertion that their needs were not met and suggest teacher solidarity instead of hard-nosed professionalism.

The fourth research question examined what contributes to the poor performance of teachers after attending professional development trainings and found that forty-seven percent (47%) of respondents indicated that the poor performance could be attributed to failure of professional development programmes to address the needs of teachers in the classroom. Another forty-eight percent (48%) of respondents opined that it was due to the reluctance of teachers to apply what they had learned from the training programmes; while the remaining five percent (5%) thought it was due to poor targeting of beneficiaries of training programmes (see Table 4.3.4a on page 84). Further probing revealed that approximately eighty-seven percent (87%) of all respondents were emphatic that training materials were not made available to them for use after training. Forty-four percent (44%) of respondents were also emphatic that inadequate teaching and learning materials contributed to poor performance of teachers in spite of participating in



professional development programmes (see Table 4.3.4c on page 86); while about sixty-seven percent (67%) of them blamed officers responsible for professional development programmes for the poor performance of teachers over time (see Table 4.3.4d on page 88). This brings to the fore, the need for post training follow-up on trainees to ascertain whether they are applying what they have learned, whether they are applying the new knowledge and skills acquired in the right context, and what emerging challenges they face in the applications of the new skills set. It thus seems most beneficiaries of training programmes are constrained in their ability to apply what they have learned due to unavailability of training materials to them after training. These responses suggest the importance of providing or making teaching and learning materials available to teachers and students.

The findings in relation to the objectives of the research were as follows:

Objective 1: Professional Development Programmes available for teachers in the district were in-service trainings, workshops, and distance learning courses. Distance learning programmes are the most patronized. The majority of participating teachers in this research (90%) have faith in the facilitating role Professional Development Programmes play in improving their professionalism. However, approximately 67% are not satisfied with those they have had the opportunity of attending so far.

Objective 2: Nearly half (49%) of respondents utilized demonstrations as their most preferred method of teaching, followed by those who used the lecture method (34%). The merits of using demonstration method in teaching lies in the fact that it bridges the gap between theory and practice, enables learners to become good observers and generate their interest; students see immediate progress as a result of a correct effort and it enables



the teacher to teach manipulative and operational skills. Being a newly created District, teachers in Sagnarigu District are not immune to resource constraints associated with the creation of new administrative districts. There may therefore not be enough resources for students to participate in lessons as individuals or small groups in subjects that require a demonstration of their knowledge, understanding, abilities and skills. Demonstrations therefore become the most feasible and practical way that teachers can carry their students along with them. In addition, the nature of the subjects respondents teach, the time allotted for the subjects and the classroom/school environment may all be factors that make the use of demonstrations as the most realistic and efficient method of teaching.

Objective 3: Ninety-four percent (94%) of respondents indicated that teachers attending professional development courses exhibited enhanced competencies after such courses. Respondents confirmed the assertion in their rating of post professional development training rating of teachers with nearly 80% of respondents buttressing this assertion by expressing satisfaction with the performance of their colleagues.

Objective 4: Approximately 47% of respondents were of the opinion that poor performance of teachers after attending professional development trainings could be attributed to two reasons - failure of professional development programmes to address the needs of teachers in the classroom and the reluctance of teachers to apply what they had learned from the training programmes. Eighty-seven percent (87%) respondents were of the opinion that training materials were not made available to them for use after training a situation that frustrated their efforts towards delivering good quality teaching (see Table 4.3.4b on page 85), while another forty-four percent (44%) were also emphatic that



inadequate teaching and learning materials contributed to poor performance of teachers in spite of participating in professional development programmes (see Table 4.3.4c on page 86). Sixty-seven percent (67%) of them blamed officers responsible for professional development programmes for the poor performance of teachers over time (see Table 4.3.4d on page 88).

### **5.3 Conclusion**

The majority of respondents were of the opinion that professional development programmes improved their performance. In particular they found Thematic Workshops most effective. In contrast however, given the choice, most teachers would rather patronize Distance Learning Courses and Programmes. They were also not satisfied with Professional Development Programmes being organized for them.

Demonstrations were the most preferred teaching method by most teachers following professional development courses. This may however be influenced by the subject and resource constraints. The research also revealed that Professional Development Programmes enhanced the competency of teachers. This notwithstanding, some teachers still exhibited poor post professional development performance; a situation attributed to the failure of these programmes to meet the classroom needs of teachers and the failure of teachers to apply what they have learned from professional development programmes. Resource constraints that included inadequate teaching and learning materials and unavailability of professional development training materials following training programmes were cited as reasons for poor performance of teachers. None of the schools in the study achieved less than 50% pass rate in the last BECE examination; a situation that does not reflect district-wide results.



#### 5.4 Recommendations

On the basis of the findings of this research, the following recommendations are being made:

The Ghana Education Service should organize regular and sustained professional development programmes for teachers. Training programmes for cross-cutting themes should be a must for all teachers; while those on specific themes and subjects should be based on scientific needs assessment that take cognizance of peculiar needs of teachers.

It is strongly suggested that such programmes should be examinable and successful teachers awarded appropriate and recognized certificates that contribute significantly to their promotions within the Ghana Education Service.

Professional Development Programmes should be tailored towards exposing teachers to an array of teaching methods from which they can choose what method is appropriate for a particular subject or topic in any environment they find themselves. The findings in this study suggest that most teachers are either limited in the teaching methods they are familiar with or do not have the needed resources to apply specific teaching methods even if they found them appropriate to their context. The provision of relevant teaching and learning materials in adequate quantities must therefore be a priority for all stakeholders in the Basic Education Sector to strengthen teaching and learning that becomes the foundation for a strong human resource base for the nation. Teaching and Learning Materials Development should also take centre stage in the content of Teachers' Professional Development Programmes and the Ghana Education Service should lead this crusade.

The application of what has been learned by teachers following Professional Development Training Programmes should be monitored closely to ensure appropriate



knowledge and skills transfer to students they teach. Supervision by headteachers and Circuit Supervisors is essential in this regard; and the Training and Curriculum Development Unit of the Ghana Education Service should ensure that they are an integral part of participants of these programmes. However, for this to be effective, training materials should be available to participants as reference materials following training programmes.



## REFERENCES

- Aaronson, D., Barrow, L. and Sander W. (2007). *Teachers and Student Achievement in Chicago Public High Schools*. Journal of Labor Economics 25:95-135.
- Adeku, A., Tagoe, A. M., & Anhwere, J. (2013). *Factors influencing Teachers' Motivation for Continuing Professional Development Through Distance Education in the East Akim Municipality*. University of Ghana, College of Education, School of Continuing and Distance Education, Department of Adult Education and Human Resource Studies. Legon, Ghana.
- Alhassan, S., (2007). *Modern Approaches to Research in Educational Administration for Research Students*. Payless Publications Limited. Amakom, Kumasi.
- Armstrong, A. C. (2002) *Distance Education and Teacher Professional Development in the Caribbean - A Case Study of Programme Development*. PhD Thesis submitted to the School of Education, The University of Sheffield.
- Aziz, F. & Akhtar, M. M. S. (2014) *Impact of Training on Teachers Competencies at Higher Education Level in Pakistan*. Researchers World. Volume: 5. Issue: 1; January 2014. Page 121.
- Ball, D. L., & Cohen, D. K. (1999). *Developing practices, developing practitioners: Toward a practice-based theory of professional development*. In G. Sykes & L. Darling-Hammonds (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 30–32). San Francisco, CA: Jossey-Bass.



- Baysinger, G. (1998) *Teaching Chemical Information: Tips and Techniques*. Swain Chemistry and Chemical Engineering Library, Stanford University Libraries.
- Borko, H. (2004). *Professional development and teacher learning: Mapping the terrain*. *Educational Researcher*, 33(8), 3–15.
- Boyd, D., Lankford, H., Loeb, S., Ronfeldt, M. and Wyckoff, J. (2011). *The Role of Teacher Quality in Retention and Hiring: Using Applications-to-Transfer to Uncover Preferences of Teachers and Schools*. *Journal of Policy Analysis and Management* 30:88-110.
- Brookfield, S. (2005). *Power of critical theory for adult learning and teaching*. Berkdire, Great Britain: McGraw-Hill Education.
- Brown C.L., & Aydeniz M. (2017) *Maximizing Science Teachers' Pedagogical Potential For Teaching Science Literacy to ELLs: Findings from a Professional Development Program*. In: de Oliveira L., Campbell Wilcox K. (eds) *Teaching Science to English Language Learners*. Palgrave Macmillan, Cham.
- Bulajeva, T. (2003) *Teacher professional development in the context of school reform*. *Journal of Teacher Education and Training*. 2. (2003): 39-45.
- Bušelić, M. (2012). *Distance Learning – Concepts and Contributions*. Preliminary Note. *Oeconomica Jadertina* 1. (2012).
- Butler, D. & Leahy, M. (2005). *The TeachNet Ireland Project as a Model of Professional Development for Teachers*. In C. Crawford, R. Carlsen, I. Gibson, K. McFerrin, J. Price, R. Weber & D. Willis (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2005* (pp. 2377-2383). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved June 6, 2017 from





<https://www.learntechlib.org/p/19439>.

Butler, D. and Leahy, M. (2003). *The TeachNet Ireland project as a Model for Professional Development for Teachers*. Dublin: St, Patrick's College of Education, Dublin City University.

Casarotti, M., Filliponi, L., Pieti, L. & Sartori, R. (2002) *Educational interaction in distance learning: Analysis of one-way video and two-way audio system*. PsychNology Journal, 1(1), 28 – 38.

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

Christensen, E. W., Anakwe, U. P. & Kessler E. H. (2001) *Receptivity to distance learning: the effect of technology, reputation, constraints, and learning preferences*. Journal of Research on Computing in Education, 33 (3), 263 – 279.

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

Cohen, D. K., Raudenbush, S., & Ball, D. L. (2002). *Resources, instruction, and research*. In F. Mosteller & R. Boruch (Eds.), *Evidence matters: Randomized trials in education research*, (pp. 80–119). Washington, DC: Brookings Institution Press.

Cohen, D. K., & Hill, H. C. (2000). *Instructional policy and classroom performance: The mathematics reform in California*. Teachers



College Record, 102(2), 294–343.

Commonwealth of Learning. (2008). *Education for a digital world: Advice, guidelines and effective practice from around the globe*. Retrieved from:  
<http://www.col.org/resources/crsMaterials/Pages/edDigitalWorld.aspx>

Community Tool Box, (2016). *Conducting a workshop*. Work Group for Community Health and Development, University of Kansas. Retrieved from:  
<http://ctb.ku.edu/en/table-of-contents/structure/training-and-technical-assistance/workshops/main>.

Crowther, F., Kaagan, S., Ferguson, M, & Hann, L 2002a, *Developing Teacher leaders: How Teacher Leadership Enhances School Success*, Sage Publications, California.

Daluba, N. E. (2013). *Effect of Demonstration Method of Teaching on Students' Achievement in Agricultural Science*. World Journal of Education. Volume 3, No. 6; 2013.

Danaher, P.A & Umar A. (Eds). (2010). *Teacher Education Through Open and Distance Learning*. Commonwealth of Learning: Vancouver.

Daniel, Sir J. (2010). *Meag-Schools, Technology and Teachers: Achieving Education For All*. Routledge: London and New York

Darling-Hammond, L., & McLaughlin, M. W. (1995). *Policies that support professional development in an era of reform*. Phi Delta Kappan, 76(8), 597–604.

Dede, C., Jass Ketelhut, D., Whitehouse, P., Breit, L., & McCloskey, E. (2006). *Research Agenda for Online Teacher Professional Development*. Cambridge,



MA: Harvard Graduate School of Education.

Dede, C., Breit, L., Ketelhut, D. J., McCloskey, E., & Whitehouse, P. (2005a). *An overview of current findings from empirical research on online teacher professional development*. Cambridge, MA: Harvard Graduate School of Education.

Desimone, L. M. (2009). *Improving impact studies of teachers' professional development: Toward better conceptualizations and measures*.

*Educational Researcher*, 38, 181-200.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S. & Birman, B. F.

(2002) *Effects of Professional Development on Teachers' Instruction: Results from a Three-Year Longitudinal Study*. *Educational*

*Evaluation and Policy Analysis*, Vol. 24, No. 2, pp. 81-112. American

Educational Research Association.

Djarmiko, I. W. (2011). *Self-directed professional development approach: an alternative to enhance vocational teacher's character*. Paper presented in International Seminar on Vocational Education and Training at Saphir Hotel, Yogyakarta on July 9<sup>th</sup>, 2011.

Dorgu, T. E. (2015) *Different Teaching Methods: A Panacea for Effective Curriculum Implementation in the Classroom*. *International Journal of Secondary Education*. Special Issue: Teaching Methods and Learning Styles in Education. Vol. 3, No. 6-1, 2015, pp. 77-87.

Education Guyana (2016). *The importance of learning materials in teaching*.

Retrieved from <http://educationgy.org/web/index.php/teachers/tips-for-teaching/item/2036-the-importance-of-learning-materials-in-teaching>.



Source: [www.ehow.com](http://www.ehow.com).

Ekpoh, V.I., Oswald, A., & Victoria (2013). *Staff development programmes and secondary school teachers' job performance in Uyo metropolis, Nigeria*. *Journal of Education & Practice*, Vol.14, No.12

Elmore, R. F. (1997). *Investing in teacher learning: Staff development and instructional improvement in Community School District #2, New York City*. New York, NY: National Commission on Teaching & America's Future.

Eyiah, J.K., (2013). *World Teachers' Day*. Retrieved from <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/World-teachers-day-287849>.

Fishman, B. J., Marx, R. W., Best, S., & Tal, R. T. (2003). *Linking teacher and student learning to improve professional development in systemic reform*. *Teaching and Teacher Education*, 19, 643–658.

Frederick, B.J.A., & Stephen, O.O., (2010). *Teachers' Perceptions of Staff Development Programmes As It Relates to Teachers' Effectiveness : A Study of Rural Primary Schools' in Kenya*. *Educational Research & Review*, Vol.5(1)

Gaible, E. and Burns, M. (2006). *Models and best practices in teacher professional development*. Retrieved from:  
[http://www.gesci.org/old/files/docman/Teacher\\_Professional\\_Development\\_Models.pdf](http://www.gesci.org/old/files/docman/Teacher_Professional_Development_Models.pdf)

Gaible, E. & Burns M. (2005). *Using Technology to Train Teachers: Appropriate Uses of ICT for Teacher Professional Development in*



*Developing Countries*. Washington, DC: infoDev / World Bank.

Available at: <http://www.infodiv.org/en/Publication.13.html>

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

Garet, M. S., Porter, A. C., Desimone, L. M., Birman, B. F., and Yoon, K. S. (2001). *What makes professional development effective? Results from a national sample of teachers*. *American Educational Research Journal*, 38(4), 915–945.

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

Gunawardena, C., and McIsaac, M. (2004). *Distance Education*. Handbook of Research for Educational Communications and Technology: Second Edition. Jonassen, D. Available at: <http://www.aect.org/edtech/14.pdf>, page.2.

Gupta, K. (1999) *A practical guide for need assessment*. San Francisco: John Wiley & Sons. Inc.

Guskey, T. R. (2003). *What makes professional development effective?* *Phi Delta Kappan* 79 (7), 738-745.

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

Halim, A., & Ali, M. M. (1988). *Administration and management of training*



*programmes*. Bangladesh Journal of Training and Development,  
1 (2), 1-19.

Hanover Research (2011). *Distance Education Models and Best Practices*.

Hanover Research, 1101 Pennsylvania Ave. NW, Suite 600 Washington, DC  
20004

Hassel, E. (1999). *Professional development: Learning from the best*. Oak  
Brook, IL: North Central Regional Educational Laboratory (NCREL).

Hiebert, J., & Grouws, D. A. (2007). *The effects of classroom mathematics  
teaching on students' learning*. In F. K. Lester (Ed.), *The second  
handbook of research in mathematics education*. Reston, VA: New  
Age and National Council of Teachers of Mathematics.

Hirsh, S. (2011) *Promoting Powerful Professional Learning to Advance Student  
Achievement*. National Staff Development Council, 17330 Preston Road, Suite  
106-D, Dallas, Texas 75252.

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

Holmberg, B. (2005) *The Evolution, Principles and Practices of Distance Education*. The  
Series of the Center for Research in Distance Education (ASF) at the Carl von  
Ossietsky University of Oldenburg. 174 pp. ISBN 3-8142-0933-8

Hooker, M. (2017) *Models and Best Practices in Teacher Professional Development*.  
ResearchGate. Retrieved from:  
<https://www.researchgate.net/publication/242603141>.

Hopkins, G.A. (2005). *A view from the Ivory tower*. Academic Leader, 43(3),  
119-158.





- Hord, S. M. (Ed.). (2004). *Learning together leading together: Changing schools through professional learning communities*. New York, NY: Teachers College Press.
- Idodo, C. U., & Oladimeji, A. J. (2002). *Agricultural Improvement and Development through Education. An overview*. *Teacher Education Journal*, 2 (1), 35-40.
- ILO/UNESCO (1996) *Recommendations Concerning the Status of Teachers*, 1966; p 21-24). UNESCO Publishing Office, 7 place de Fontenoy, 75352 Paris 07 SP, France.
- Information Resources Management Association (2014). *Adult and Continuing Education: Concepts, Methods, Tools and Applications*. Information Science Reference (an imprint of IGI Global, USA).
- Jahangir, S.F., Saheen,N., & Kazmi,S.F. (2012). *In-Service training: a contributory factor influencing teachers' performance*. *International Journal of Academic Research in Progressive Education and Development*, Vol.No.1
- Joubert, M., & Surtherland, R. (2009). *A perspective on the literature: Continuing Professional Development for teachers of mathematics*. University of Bristol: National Center of Excellence in the Teaching of Mathematics.
- Joyner S. & Reed D. (2005). *Reading first notebook*. Southwest Educational Development Laboratory. 211 E. 7th St., Suite 200, Austin, TX 78701. Retrieved from <http://www.sedl.org>
- Kane, T. J., Rockoff, J. E. and Staiger, D. O. (2008). *What Does Certification Tell Us About Teacher Effectiveness? Evidence from New York City*.

Economics of Education Review 27:615-631.

Karimi (Allvar), M. (2011). *The Effects of Professional Development*

*Initiatives on EFL Teachers' Degree of Self Efficacy*. Australian

Journal of Teacher Education, 36(6).

Katane, I. (2006) *Teacher competence and further education as priorities for*

*sustainable development of rural school in Latvia*. Journal of Teacher

Education and Training. 6. 2006:41-59.

Kazmi,S.F., Pervez,T., & Mumtaz,S. (2011). *In-Service Teacher Training in*

*Pakistan Schools and Total Quality Management*. Interdisciplinary

Journal of Contemporary Research In Business, March Edition 2011.

Kedzior, M., & Fifield, S. (2004). *Teacher professional development*.

Education Policy Brief, 15(21), 76–97.

Keegan, D. (2000) *Distance training: taking stock at a time of change*. London and New

York: Routledge.

Keegan, D. (1986) *Foundations of distance education*. London: Croom Helm

Khy, A. B. (2017) *Professional Development*. Retrieved from:

<https://www.scribd.com/document/339117135/Professional-Development/>

Kirk J., Dembélé M. & Baxter, S. (2013). *More and Better Teachers for Quality*

*Education for All: Identity and Motivation, systems and Support*. Collaborative

Works.

Kleiman, G. (2004). *Meeting the need for high quality professional development: An e-*

*learning solution* [PDF document]. Washington, DC: US Department of





Education. Retrieved from:

<http://www.ed.gov/about/offices/list/os/technology/plan/2004/site/documents/Kleiman-MeetingtheNeed.pdf>

Kumar, V. (2015) *Professional Development*. Leadership and Development. Retrieved from <https://www.slideshare.net/kumarvivek107/professional-development-44634028>

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

McKee, S. (2015) *Are You Using a Questionnaire or Survey to Collect Data?* Retrieved From: <https://www.surveygizmo.com/resources/blog/taking-the-question-out-of-questionnaires/>

Meletiou-Mavrotheris, M & Papanastasiou, E. (2010). *Distance Learning for Teacher Professional Development in Statistics Education*. Proceedings of the Eighth International Conference on Teaching Statistics (ICOTS8, 2010, Contributed Paper). International Association of Statistical Education (IASE).

Metro Voice, (2013), *Distance Learning: Explore the Categories for Online Learning Programmes*. Retrieved from: <http://metrovoicenews.com/wp-content/uploads/2014/07/Topeka-Distance-Learning-Guide-2013.pdf>

Ministry of Education, Ghana (2013). *The ICT in Education Country Report*. Global Symposium on ICT in Education 2013. Ministry of Education, Accra.

Mizell, H. (2010). *Why professional development matters*. Learning Forward.



504 S. Locust Street. Oxford, OH 45056.

MOE/GES, (2012). *Pre-tertiary Teacher Professional Development and Management in*

*Ghana: Policy Framework 2012*. Ministry of Education, Accra.

Moore, M.G. (1997) *The Theory of Transactional Distance*. Retrieved from

<http://www.c3l.uni-oldenburg.de/cde/support/readings/moore93.pdf>

Muffer, W.H. (2013). *Professional Development of teachers through open and distance*

*learning: The case of the University of Buea Distance Education (DED)*

*Programme*. Ministry of Basic Education, Yaounde, Cameroon.

NAIFA (2016). *Professional Development and Education: Everything Begins With Me*.

Retrieved from: <http://www.naifaleadershipacademy.com/session-4.html>.

National Commission on Teaching & America's Future. (1996). *What matters*

*most: Teaching for America's future*. New York: Author.

National Staff Development Council. (2009). *NSDC definition for Professional*

*Development* Oxford, OH: Author.

National Staff Development Council. (2002). *Standards for professional development*.

Oxford, OH: Author.

National Professional Development Centre on Inclusion (2008). *What do we*

*mean by professional development in the Early Childhood Development Field?*

Chapel Hill: The University of North Carolina, FPG Child Development Institute,

Author.

Niederhauser, D. S. & Stoddart, T. (2001) *Teachers' instructional perspectives and use of*

*technological software*, *Teaching and Teacher Education*, 17, p 15 – 31.

Olujide, D. (2017) *Extension Organization, Management and Supervision*. National Open



University of Nigeria.

Omar, C.M.Z.C. (2014) *The Need for In-Service Training for Teachers and Its Effectiveness In School*. International Journal for Innovation Education and Research. Vol.2-11, 2014.

Ombati, D.M. and Okibo, W.B. (2015). *Influence of in-service training on service delivery: the case of registered nurses in Masaba North sub County, Nyamira County*. The International Journal of Business and Management; Volume 3 Issue 10, p.469.

Organization for Economic Cooperation and Development (2009) *Creating Effective Teaching and Learning Environments: First Results from Teaching and Learning International Survey (TALIS)*. OECD, Paris, France.

Overbaugh, R. & Lu, R. (2008). *The impact of a NCLB-EETT funded professional development programme on teacher self-efficacy and resultant implementation*. Journal of Research on Technology in Education, 41(1), 43–61

Owen, J. M. (1990). *Perspectives from down under* in Joyce, B. (ed): *School culture through staff development*. Alexandria: American Schools Curriculum Development

Oxbridge Academy, (2017). *Study in Your Own Time From Home: Types of Distance Learning*. Die Boord, Stellenbosch, 7613. South Africa.

Palardy, G. J., & Rumberger, R. W. (2008). *Teacher effectiveness in first grade: the importance of background qualifications, attitudes, and instructional practices for student learning*. Educational Evaluation and Policy Analysis, 30(2), 111-140.

Palys, T. (2008). *Purposive sampling*. In L.M. Given (Ed.) *The Sage Encyclopedia of*



Qualitative Research Methods. (Vol.2). Sage: Los Angeles, pp. 697-8.

Pelgrum, W. J., Law, N. (2003) *ICT in Education around the World: Trends,*

*Problems and Prospects*. UNESCO - International Institute for

Educational Planning. Available:

[www.worldcatlibraries.org/wcpa/ow/02d077080fcf3210a19afeb4da09e526.html](http://www.worldcatlibraries.org/wcpa/ow/02d077080fcf3210a19afeb4da09e526.html)

Perumal, R. (2016) *Distance Education in India: a Boon or Bane?* International Journal

of Interdisciplinary Studies Volume 1, Issue 3. ISSN 2455-359X

Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and*

*application (2<sup>nd</sup> ed.)*. Upper Saddle River, NJ: Merrill/Prentice-Hall.

Professional Learning Association (2008) *Definition of professional Development*.

Retrieved from: [http://learningforward.org/who-we-are/professional-learning-](http://learningforward.org/who-we-are/professional-learning-definition#.VnPEZ78qYb0)

[definition#.VnPEZ78qYb0](http://learningforward.org/who-we-are/professional-learning-definition#.VnPEZ78qYb0).

Puchner, L. D., & Taylor, A. R. (2006). *Lesson student, collaboration and teacher*

*efficacy: stories from two school-based math lesson study groups*. Teaching and

Teacher Education, 2(7), 922-934.

Quatellbaum, S. (2012). *Why professional development for teachers is*

*critical?* Teacher, New Jersey Public Schools. Retrieved from:

[http://evollution.com/opinions/why-professional-](http://evollution.com/opinions/why-professional-development-for-teachers-is-critical/)

[development-for-teachers-is-critical/](http://evollution.com/opinions/why-professional-development-for-teachers-is-critical/)

Richardson, V., & Placier, P. (2001). *Teacher change*. In V. Richardson (Ed.).

*Handbook of Research on Teaching* (4th Ed., pp. 905–947)

Washington, DC: American Education Research Association.

Right, J. (2016). *The importance of learning materials in teaching*. Retrieved

from <http://classroom.synonym.com/importance-learning-materials->



teaching-6628852.html.

Rivkin, S. G., Hanushek, E. A. and Kain. J. F. (2005). *Teachers, Schools, and Academic Achievement*. *Econometrica* 73:417-458.

Rockoff, J. (2004). *The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data*. *American Economic Review* 94:247-252.

Rogers, F. E., & Olmsted, A. G. (1957). *Supervision in the cooperative extension service*. Madison, WI: National Agricultural Extension Center for Advanced Study.

Ronald, W. R. (2004). *Human resource administration in education: a management approach*. Pearson Education, Inc. U.S.A.

Ross, J. A. & Bruce, C. D. (2007). *Professional Development Effects on Teacher Efficacy: Results of Randomized Field Trial*. *Journal of Educational Research*, 101(1), 50-60

Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2004). *Evaluation: A systematic approach* (7<sup>th</sup> Ed.) Thousand Oaks, CA: Sage Publications.

Saban, A. (2000). *Öğrenme-öğretme süreci; yeni teori ve yaklaşımlar*. Ankara: Star offset matbaas.

Schön D. A. (1983) *The Reflective Practitioner: how professionals think in action*. London: Temple Smith

Selvi K. (2010) *Teachers' competencies*. *Cultura. International Journal of Philosophy of Culture and Axiology* 7(1):167-175 · January 2010.

Shachar M. and Nuemann Y. (2010). *Twenty Years of Research on the Academic Performance Differences Between Traditional and Distance Learning: Summative*



*Meta-Analysis and Trend Examination.* MERLOT Journal of Online Learning and Teaching, Vol. 6, No.2.

Shanmugavelu, G., (2015). *The Need for In-Service Training for Teachers and its effectiveness in School.* Jurnal Penyelidikan Dedikasi, Jilid 9, 2015. Institut Pendidikan Guru, Kampus Ipoh.

Skylar A. A., Higgins, K., Boone, R., & Jones, P. (2005). *Distance Education: An Exploration of Alternative Methods and Types of Instructional Media in Teacher Education.* Journal of Special Education Technology, 20, 3, pp. 25-33.

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

Somprach, K., Popoonsak, P., & Maneewong, S. (2012). *Teacher Development Programme to Enhance Learning Competency for Small Primary Schools in Thailand.* Procedia – Social and Behavioral Sciences 69 ( 2012 ) 1052 – 1058

Sparks, D. (2002) *Designing powerful professional development for teachers and principals.* National Staff Development Council, Oxford, OH 45056

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

Stigler, M., & Hiebert, J. (1999). *The Teaching Gap.* Free Press.

Supovitz, J. A. (2001). *Translating teaching practice into improved student achievement.* In S. Fuhrman (Ed.), *National Society for the Study of Education Yearbook.* Chicago, IL: University of Chicago Press.

Timperley H., Wilson A., Barrar H. & Fung I. (2007). *Teacher Professional*



*Learning and Development: Best Evidence Series Iteration.*

Wellington, New Zealand: Ministry of Education.

Thompson, J. T. (1992). *Developing and Implementing An In-Service*

*Programme Designed To Change Teacher Attitude Towards Mainstream*

*Learning Disabled Students At The Secondary Level.* Research

Report, Nova University.

Tschannen-Moran, M. & Woolfolk Hoy, A. (2001). *Teacher efficacy:*

*capturing an elusive construct,* Teaching and Teacher Education 17,

783–805

UNESCO, (2015). *The Right to Education and the Teaching Profession: Overview of the*

*Measures Supporting the Rights, Status and Working Conditions of the Teaching*

*Profession reported on by Member States.* UNESCO Education Sector. Paris.

UNESCO (2014). *UNESCO Education Strategy 2014-2021.* United Nations Educational,

Scientific and Cultural Organization, 7, place de Fontenoy, 75352 Paris 07 SP,

France.

UNESCO (2008). *Overcoming Inequality: Why Governance Matters. Education For All*

*Global Monitoring Summary.* UNESCO: Paris.

UNESCO (2004). *Education For All: The Quality Imperative. EFA Global Monitoring*

*Report.* UNESCO: Paris.

Walling, B., & Lewis, M. (2000). *Development of professional development*

*pre-service teachers: Longitudinal and comparative analysis.* Action

Teacher Education, 22(2a), 63-67.

Watson, C. (2012). *Quality in education: Teacher education and professional*



*development – A literature review.* Danish Education Network.

Yoon, K. S., Garet, M., Birman, B. & Jacobson, R. (2007). *Examining the effects of mathematics and science professional development on teachers' instructional practice: Using professional development activity log.* Washington, DC: Council of Chief State School Officers.

Zambo, R. & Zambo, D. (2008). *The impact of professional development in mathematics on teachers' individual and collective efficacy: The stigma of underperforming.* Teacher Education Quarterly, Winter, 2008, 159-168





**Appendices**

**Survey Questionnaire**

**UNIVERSITY FOR DEVELOPMENT STUDIES**

**FACULTY OF EDUCATION**

QUESTIONNAIRE FOR SELECTED JUNIOR HIGH SECONDARY SCHOOL  
TEACHERS IN SAGNARIGU DISTRICT

Dear Respondent,

I am a student of the University for Development Studies; undertaking a course of study leading to the award of Master of Philosophy (Training and Development). As part of my study programme, I am conducting a study on “analyzing the effects of teachers’ professional development programmes on their performance in Sagnarigu District” in partial fulfilment of the requirements for the award of the degree.

I would be very grateful if you could assist me in this regard by answering the attached questionnaire. Please rest assured that your identity and confidentiality in this process is assured. Thank you.

Yours faithfully,

Rebecca Sulley  
(M. Phil. Student)



Please read through the questions below and tick (✓) in the appropriate boxes provided.

**SECTION A: PERSONAL INFORMATION**

1. Gender: (1) Male [ ] (2) Female [ ]

2. Age: (1) 25–30 years [ ] (2) 31–36 years [ ] (3) 37–42 years [ ] (4) 43–48 years [ ]  
(5) 49–54 years [ ]  
(6) Above 55 years [ ]

3. Highest Education attained:

(1) SSSCE/WASSCE [ ]  
(2) Certificate/Diploma/HND [ ]  
(3) First Degree (BA, BSc, B.Ed, etc) [ ]  
(4) Second Degree (M.A., M.Sc, M.Phil, M.Ed, MBA, etc) [ ]  
(5) Other [ ]

4. Professional status:

(1) Certificate/Diploma Professional teacher [ ]  
(2) Certificate/Diploma non-professional teacher [ ]  
(3) Graduate professional teacher [ ]  
(4) Graduate non-professional teacher [ ]

5. Rank: (1) Superintendent II [ ]

(2) Superintendent I [ ]  
(3) Senior Superintendent II [ ]  
(4) Senior Superintendent I [ ]  
(5) Principal Superintendent [ ]  
(6) Assistant Director II [ ]  
(7) Assistant Director I [ ]

6. How long have you been teaching?

(1) 1 – 5 years [ ]  
(2) 6 – 10 years [ ]  
(3) 11 – 15 years [ ]  
(4) 16 – 20 years [ ]  
(5) Above 20 years [ ]



**SECTION B: COURSES AVAILABLE FOR TEACHERS' PROFESSIONAL DEVELOPMENT IN THE SAGNARIGU DISTRICT**

7. What type of teacher professional development programmes are available for teachers in Sagnarigu District?

- (1) Workshops [ ]
- (2) In-service training [ ]
- (3) Distance learning [ ]

8. If your answer to question 7 above is in-service training, is it usually

- (1) Cluster-based INSET [ ]
- (2) School-based INSET [ ]

9. Which of these programmes is mostly patronized by teachers?

- (1) Workshops [ ]
- (2) In-service training [ ]
- (3) Distance learning [ ]
- (4) Conventional courses [ ]

10. Do you agree with the assertion that more male teachers attend professional development programmes than female teachers?

- (1) Yes [ ]
- (2) No [ ]

11. If your answer to question 10 above is yes, what do you think accounts for this state of affairs?

- (1) There are more male teachers in the system than female teachers
- (2) Male teachers are preferred by heads to attend professional development programmes
- (3) Male teachers apply what they learn from these programmes more readily

12. What are the objectives for organizing professional development programmes for teachers? Please tick all answers you think are applicable.

- (1) To effect specific changes in teachers [ ]
- (2) For teachers to learn new things [ ]
- (3) To improve teachers' professionalism [ ]
- (4) To determine teachers' promotion within the service [ ]
- (5) I do not know [ ]

13. Are you satisfied with professional development courses currently organized for teachers?

- (1) Yes [ ]
- (2) No [ ]



**14.** Do you recommend professional development programmes for teachers?

- (1) Yes [ ]                      (2) No [ ]

**SECTION C: LESSON DELIVERY METHODS TEACHERS USE**

**15.** Which of these methods do teachers mostly use in teaching?

- (1) Group discussion [ ]  
(2) Role play [ ]  
(3) Lecture [ ]  
(4) Demonstration [ ]

**16.** Do you think teachers use teaching and learning materials (TLM) sufficiently in their lesson delivery?

- (1) Yes [ ]                      (2) No [ ]

**17.** If your answer to question 16 above is yes, how often in your assessment to teachers use TLMs?

- (1) Regularly [ ]  
(2) Fairly regularly [ ]  
(3) Sometimes [ ]  
(4) Rarely [ ]  
(5) Not at all [ ]

**18.** From your experience, what is the effect of using TLMs during lesson delivery on both teachers and pupils? Please tick all that you think are applicable.

- (1) Pupils understand lessons better and quickly [ ]  
(2) Good results are achieved during examinations [ ]  
(3) Teachers feel a high sense of achievement [ ]

**SECTION D: COMPETENCE LEVEL OF TEACHERS**

**19.** Do teachers experience and exhibit enhanced competency when they attend professional development courses?

- (1) Yes [ ]                      (2) No [ ]

**20.** If your answer to question 19 above is yes, how would you rate the competency of such teachers?



- (1) Excellent [ ]
- (2) Very good [ ]
- (3) Good [ ]
- (4) Fairly good [ ]

21. Which of the following would you prefer?

- (1) A competent teacher regardless of background training [ ]
- (2) An experienced teacher based on years of service [ ]
- (3) A teacher who has had formal professional teacher training [ ]
- (4) A teacher who has not had formal professional teacher training [ ]

22. Are you satisfied with the performance of teachers in your school?

- (1) Very satisfied [ ]
- (2) Satisfied [ ]
- (3) Fairly satisfied [ ]
- (4) Barely satisfied [ ]
- (5) Not satisfied [ ]

### **SECTION E: FACTORS AFFECTING TEACHERS' PERFORMANCE AFTER PROFESSIONAL DEVELOPMENT TRAINING**

23. Which of the following accounts for teachers' poor performance after going through professional development training programmes?

- (1) Programmes do not address teachers' classroom needs [ ]
- (2) Reluctance to apply what has been learnt from trainings [ ]
- (3) Poor targeting of beneficiaries of training programmes [ ]

24. Are training materials made available for teachers to use after training?

- (1) Yes [ ]
- (2) No [ ]

25. Who are to blame for poor performance of teachers over time?

- (1) Officers responsible for teachers' professional development programmes [ ]
- (2) Teachers themselves [ ]
- (3) School heads [ ]
- (4) Unresponsive pupils to innovations applied by teachers [ ]
- (5) Other (please specify)..... [ ]



**26.** Which of these do you think contributes to the poor performance of teachers after initial training? Please tick any of these that apply.

- (1) Poor school environment
- (2) Inadequate teaching and learning materials
- (3) Poor supervision of teachers by designated officers
- (4) Teacher absenteeism
- (5) Student absenteeism



**26.** Which of these do you think contributes to the poor performance of teachers after initial training? Please tick any of these that apply.

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