

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE.

**USING SCHOOL BASED IN-SERVICE TRAINING TO ENHANCE TEACHER
COMPETENCE IN TEACHING HANDWRITING IN ISHADIA E/A PRIMARY
SCHOOL IN THE KARAGA DISTRICT.**

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THE REQUIREMENTS FOR THE AWARD OF MASTER OF EDUCATION DEGREE
IN TRAINING AND DEVELOPMENT.**



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DECLARATION

Student's Declaration

I hereby declare that, this research work 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.

Student's Name: SAYIBU IBRAHIM

Student's Signature:.....Date:.....

Supervisor's Declaration

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

Supervisor's Name: HAJIA DR. ISSAKA CECILIA ALIMA

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



ABSTRACT

This study is an action research aimed at improving teachers' competency in teaching handwriting in Ishadia E/A Primary School through in-service training in the Karaga district. Purposive sampling technique was employed to select twelve (12) teachers whose lessons were observed during the pre- intervention and post- intervention phases of the study. Also a series of in-depth interviews were conducted with the teachers of the Ishadia E/A Primary School. A situational analysis of the problem; an intervention in a form of in-service training was conducted to address the problem. Finding revealed that inadequate teaching and learning materials for the teaching of handwriting, inadequate activities, poor teaching skills, broadness of English language as a subject, large class size, inadequate English language period were the factors hindering the teaching of handwriting. The study concluded that appropriate and customised school based in-service for classroom teachers can improve their competencies and skills in teaching handwriting. The researcher recommend among others that stake holders of education in the district should endeavor to provide appropriate teaching materials for handwriting, school based in-service training should be intensified by Ghana education service, the leadership of the school with the help of district education office should increase time allocation to the teaching of English language.



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DEDICATION

This work is dedicated to all my family members and friends.



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LIST OF ACRONYMS

ADHD	:	Attention - Deficit Hyperactivity Disorder.
BECE	:	Basic Education Certificate Examination.
CBI	:	Cluster Based In-service.
CPD	:	Continual Professional Development.
CRDD	:	Curriculum Research and Development Division.
DVD	:	Disc Video Displayer.
DLA	:	Discovery Learning Alliance.
GES	:	Ghana Education Service.
INSET	:	Ins-Service Education Training.
NGO	:	Non Governmental Organisation.
SBI	:	School Based In-Service.
SBA	:	School Based Assessment.
SPSS	:	Statistical Package for Social Sciences
TLMs	:	Teaching and Learning Materials.
UPE	:	Universal Primary Education.
WAEC	:	West African Examination Council



CHAPTER ONE

INTRODUCTION

1.0 Chapter overview.

This chapter seeks to provide an introduction to the research study. The introduction focused on background of the study, perceived problem, diagnosis, evidence, causes, statement of the problem, purpose of the study, objectives of the study, research questions and the significance of the study.

1.1 Background to the study

Education is as old as humanity, before the introduction of formal education in Africa, there was education known as traditional education. The European trading merchants later on introduced formal education into the country and for that matter Africa. Education is a means of people acquiring learning that is knowledge, values and basic skills to enable them develop their capabilities in life. Again, education is seen as a process by which knowledge and experiences are handed over from older generation to the newer generation in order to manage life with fewer mistakes. It is very clear that education contributes to the overall development and improvement of an individuals' life as well as his or her family, community and nation at large. However, the importance of education cannot be fully realised without English language. It is an important subject within the list of foundation subjects that constitute the core curriculum for basic education in Ghana; it occupies a privileged position in the school curriculum. According to Tsadidey (2002:2) English is the official language of the country, it is the language of education starting as a subject on the time table for the first three years of formal



education and there after become the medium of instruction. This policy has changed since 2002 making English the medium of instructions at all levels of formal education in Ghana. The importance of English language can be seen from its application in our daily lives and its role in our school curriculum. This means that without proper understanding of the underlying principles in the subject, the necessary skills and concepts in Ghana education cannot be acquired and applied by students. Ghana as a nation cannot develop very well if sustainable strategies are not put in place to improve upon the teaching and learning of the language.

The students are the future leaders of the nation, if the educational structure cannot give them good foundation in English language, they cannot have the requisite materials and the technical know-how needed to contribute their quota towards the development of the country. However, for these students to understand the subject very well they need to learn the language skills, these language skills are listening, speaking, reading and writing. Unfortunately teachers do neglect some of these skills especially the writing skills in their teaching and learning process in the classroom and in doing so students turn up to have poor handwriting.

Writing is the act of using symbols, letters of the alphabet, punctuation and spacing to communicate thoughts and ideas in a form that is readable. It involves using a pen or pencil (handwriting) or a keyboard (typing). With a pen or pencil, usually, writing is done on a surface such as paper or board. In the case of device like computer, mobile and typewriter a keyboard is normally, attached to the device for typing. Voice recognition programs also, allow those who can't see or use their hands to have their thoughts transcribed. Writing is the fourth of the four language skills, even in our own language;



writing is usually the fourth language skill that we learn (Delta the Distance 2013:1-47). According to Latipah, (2014) citing Nunan, (2003) Writing is physical and mental act, it's about discovering ideas, thinking about how to communicate, develop them into statements and paragraphs that will be comprehensible to a reader. If teaching of writing skills is neglected by teachers it will affect students' academic performance. Handwriting problems are serious and can result in school failure, though identification and remediation of these problems greatly benefit students' academic success and self esteem (Berninger, & Mizokaba 1991; Levine, & Meltzer 1981) cited in (Tennyson 2006). The fundamental cause of poor handwriting is as a result of teachers in ability to teach students how to write, and same can be said at Karaga Ishadia E/A Primary School, teachers of the school do not take teaching of handwriting seriously, hence the need for in-service training for the teachers on teaching and learning of handwriting.

Egonmwan (2008), in-service training basically upgrades the knowledge and skills of teachers and the modeling and reorientation of their attitude, so that they can be more effective, efficient and productive in the performance of their teaching job. This development becomes necessary because no worker is completely perfect at the time of hiring. They need to be developed right from the time they come into the service, during their service career, and to the point of separation from the service. The training is an organised learning system undertaken to effect practical changes in the knowledge, skills and attitude of teachers. Similarly, Byars and Rue (2014) viewed in-service training as a learning process that involves the acquisition of skills, concepts, rules or attitudes to enhance the performance of employees. David and Stephen (2008) views in-service training as a learning experience which seeks a relatively permanent change in an



individual teacher that will improve his or her ability to perform on the Job. It is in light of this that the researcher has decided to conduct this study; using school based in-service training to enhance teacher competence in teaching handwriting in Ishadia E/A Primary School in the Karaga District.

The researcher in turn using school based in-service training (SBI) because of its nature in helping building Continuous Professional Development (CPD). Through school based in-service training, teachers get more training, acquiring new attitudes and skills in order to help them excel in their teaching profession and share their gained information with other colleagues and pupils/students they teach. School based In-Service Training has been considered as crucial to the maintenance and sustaining capacity of the teacher to continue to provide quality teaching and learning in the classroom(GES, 2010).. From time to time, the Ghana Education Service, development partners, NGOs and subject association organise workshops/seminars to update the knowledge and skills of teachers in the basic schools. However, some of these activities are so general in their scope that they do not satisfy the specific needs of teachers as far as their classroom performance is concerned. School based in-service training can again be seen as the variety of activities and practices, in which teachers become involved in order to enrich their knowledge, improve their skills in teaching and also enable them to become more efficient on the job.



1.2 Perceived Problem

The researcher, who is also the head teacher of the school, observed that there was less importance attached to the teaching of handwriting by most of the teachers in the school. It was fairly evident that, pupils' low performance in handwriting was as a result of teacher apathy on teaching of the skills (handwriting). The fallen standards in handwriting in the school are also attributed to use of inappropriate teaching methods in writing and could be attributed to lack of in-service training (GES, 2014). It was also recognised that, teachers do not attend the different types of in-service trainings such as workshops and other conferences organised by NGOs and even the District Education Directorate in the Karaga district. It is therefore certain that, the problem of poor writing skills among students was caused by teachers' unpreparedness to upgrade their skill through continuing professional and career development.

1.3 Diagnosing the Problem

The constant interaction with the teachers in the school has provided the opportunity to identify and analyse the challenges of teachers in terms of their training needs. Out of twelve (12) teachers in six classes at the primary school level, ten (10) of the teachers were found not to have attended any school based in-service training since their recruitment into the teaching profession. Those who were willing to attend in-service training complained of lack of notices concerning the organisation of such school based in-service training either by NGOs in education or the District Education Directorate. An interview with the teachers found that, there has been limited school-based in-service training by both the school and other stakeholders in the education sector. This particular



problem could be minimised if head teachers in their respective schools in the district could organise school-based in-service training, at least once every term of each academic year.

With high degree of certainty, if the teaching of handwriting is to be effectively done, it must be done well. To this end, Hargreaves (2009) argued that among, effective teaching of handwriting should involve emotional work. And as a result, teaching of writing should also be infused with pleasure, passion, creativity, challenge and joy. This will surely make teachers to learn new things everyday concerning writing skills, hence their interest in in-service training. This makes teaching and learning of handwriting go on very well all the time. The researcher is therefore embarking on this work using school based in-service training to enhance teacher competence in teaching handwriting in Ishadia E/A Primary School in the Karaga District.

1.3.1 Evidence of the Problem

Several reasons accounts for the poor teacher in-service training attendance in the district. In-service training which can be used to improve teachers' quality and students' academic performance in handwriting in various schools in the district was found to be haphazardly organised without a properly laid down details such as venue, date, title, purpose and even facilitators as well as organisers of such in-service training programmes. In-service training for teachers is undoubtedly giant moves towards the actualisation of the millennium goals of Universal Primary Education (Villegas- Reimers, 2010). However, several countries including Ghana have not adequately invested sufficiently to be able to meet the training need of teachers in various schools. In order to



adequately meet the rapidly expanding demand for quality teachers, governments, NGOs and other development organisations ought to invest heavily in training and re-training of teachers.

School based in-service training is training which is acquired during employment, is not included in the first appointment letters of new teachers to engage in such training usually as part of the appointment agreement. School based in-service training for teachers which is also supposed to be a training process that goes on throughout the working life of a teacher, is not quite known by most teachers, especially at the basic level. Hence, the activities that could contribute to professional growth and development of the teacher are woefully inadequate. It is quite obvious that, the authorities of the Karaga District Education Directorate has not come to the realisation that, it is when useful knowledge has been imparted to the teachers that it would benefit from its educational system; since the district lack training officers to periodically train to be abreast with the best practices in the teaching profession. It is in the light of this that a study of this kind is undertaken to assess the effects of school based in-service training on teacher performance in teaching handwriting in the school.



1.3.2 Causes of the Problem

The desire for improved teachers' performance in teaching handwriting effectively is completely relegated to the background. The teachers in the school disregard the benefits that accrue from the school based in-service training since most teachers are unable to attend such in-service trainings due to the costs they are to incur for attending the in-service training. Also teachers do not consider training as a solution to a problem

that negative affect their effective teaching of handwriting. In view of the fact that school based in-service training amongst teachers is considered to be unnecessary, they are reluctant to acquire more information on the details about such in-service trainings organised in the various schools in the district. As a result, teachers are unable to indicate what changes in teachers' knowledge, skills and attitude, or social behavior is desirable. This has created fertile ground for the continuing teacher apathy in attending not only school based in-service training, but others organised on the district.

1.4 Statement of the problem.

The researcher, who is also the head teacher of the school, in which the study was conducted, observed that most teachers were not teaching writing, a further inspection of pupils' books revealed that the pupils hardly had exercises on writing. The researcher was further alarmed by complaints from some parents about their wards poor handwriting and a study report by the circuit supervisor which suggested lack of early grade writing may have been a possible cause of the poor handwriting. The situation above suggests the serious nature and the need for an intervention. It is against this background that the researcher decided to carry out a project using school based in-service training to enhance teacher competence in teaching handwriting in Ishadia E/A Primary School in the Karaga district and develop a model of writing, to address the need gap in the school.

1.5 Purpose of the study.

The main purpose of the research is to help Karaga Ishadia E/A Primary School teachers to improve their knowledge and skills in the introduction and formation of letter in handwriting.



1.6 Objectives of the Study

1.6.1 General Objective

The general objective of the research work is to increase teachers' competence in teaching handwriting at the Ishadia E/A Primary School in the Karaga District.

1.6.2 Specific Objectives of the Study

1. Identify the challenges teachers face in teaching introduction and formation of letters in handwriting.
2. Find out the effects of teachers' not teaching introduction and formation of letters in handwriting on students' performance.
3. Find out if school based in-service training can enhance teachers' skills to teach introduction and formation of letters at the Ishadia E/A Primary School.
4. Find out the best strategies suitable for introduction and formation of letters in handwriting.

1.7 Research Questions.

In a study of this nature, it is useful for the researcher to find answers to the following research questions:

1. What difficulties do teachers face in teaching introduction and formation of letters in handwriting?
2. What are the effects of teachers' not teaching introduction and formation of letters in handwriting on students' performance?
3. What are the strategies that could be used by teachers to teach introduction and formation of letters in handwriting?



4. How would school based in-service training enhance teacher competence in teaching introduction and formation of letters?

1.8 Significance of the study

The finding of the research work would provide useful information for teachers of Ishadia E/A Primary School on how to effectively plan and teach introduction and formation of letters in handwriting. Moreover, the study will give meaningful insight into how school based in-service training could help sharpen the skills of teachers in the effective teaching of handwriting. Again, contribution of this study will add up to the existing body of knowledge since it will serve as source of literature for similar studies and for future development of contemporary models for in-service training in the school and Karaga District at large. The research will also inform stakeholders and parents the need for their wards to learn hand writing properly in primary school before moving to Junior High School. The research will also help educational bodies especially the Curriculum Research and Development Division (CRDD) to obtain important information about problems of teaching handwriting and modernise the curriculum to the advantage of teachers.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses relevant information from different authors in areas such as theories that underpins in-service training in the Ghana Education Service. The chapter also takes a look at definitions, concepts and types of In-service Training, the functions/purpose of in-service training, the challenges teachers face in teaching handwriting, effects of handwriting on students performance and the best strategies suitable for the teaching of handwriting.

2.1 Theoretical Framework

Professional development programs in basic schools which are mostly referred to as in-service training is conceptualised as a system impacting knowledge on student learning processes, thereby focusing on teacher outcomes. Guskey (1986) have advanced an important conceptualised Professional Development which had an ultimate impact on students' performance. Guskey (1997) presented a model in Figure 1 below, of teacher change process that teachers go through when participating in professional development programmes. This model constructed below has the professional development programme as the initial activation of mechanism in the modification process. The theory also recognises that the student learning outcomes, as observed by the teachers after they have transformed their classroom practices, are determinants in promoting teachers' change in beliefs and attitudes.



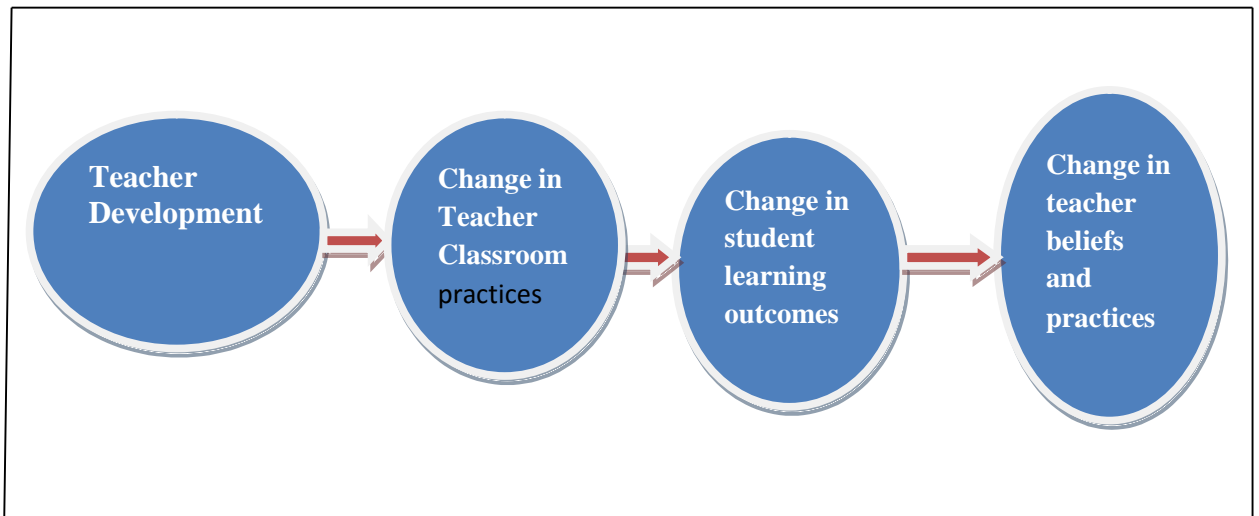


Figure 1: A Model of the process of Teacher Change (Guskey, 1986)

This framework emphasizes the continuous and circular design pervading the various change processes after teachers attend in-service training. This presents an outline of the implementation of professional development programs for improved teaching and learning of both teachers and students. This design is infused by the continuous reflection based on the outcomes of the program to re-evaluate and further improve it.

Meanwhile, Loucks-Horsley and Roody, (1990) indicated that, change is a complicated process, not an event. It is not reasonable to expect teachers to change overnight because of their participation in an in-service training program. The impact on teachers' beliefs and attitudes is much more probable to become a reality after they notice an improvement in their student learning outcomes than before. However, intensive and extensive follow-up activities of the professional development program are other essential requirements to nurture teacher positive change towards reaching and learning change.



2.2 Concept of In-service Training

In-service training is basically aimed at improving teachers' skills and knowledge in the teaching profession. In-service training entails all the activities that contribute to professional growths and qualifications of a teacher in order to effectively teach handwriting in schools (Becker and Huselid, 2009). In other words, in-service training is viewed as an ongoing education of teachers, leading to the improvement of their professional competence. With the rapid increase in human knowledge; new approaches, new methods of teaching, and new avenues for the teachers are being introduced.

As Egonmwan (2008) put it, in-service involves the improvement and bringing up to date the knowledge and skills of teachers aimed at re-orientating their attitude, to make them more effective, efficient and productive in the performance of their job. The rationale of in-service training stems from the fact that, since no teacher is completely perfect at the time of hiring. Teachers need to be developed right from the time they come into the teaching profession, during their service career, and to the point of discontinuing from the teaching profession. Egonmwan (2008) further stresses that in-service training is a planned and arranged knowledge acquisition exercise undertaken to effect realistic changes in the knowledge, skills and attitude of teachers. Similarly, Cohen and Hill (2010) defined in-service training as a learning process that involves the acquisition of skills, concepts, rules or attitudes to enhance the performance of employees. David and Stephen (2008), considers in-service training as a learning experience which tries to find a fairly permanent change in an individual teachers that will improve his or her ability to teach handwriting effectively. They contend and further argue that, in-service training should be measured by its contributions to teacher



performance, where performance is a function of skills, abilities and motivation, and the opportunity to teach handwriting. Heads of schools and administrators must compare the value received from the increase in performance that can be credited to in-service training with the cost incurred in that training. Craving for improved teachers' productivity cannot be implemented in a vacuum. The benefits that accrue from training must exceed the costs incurred. Most times inadequate performance may result from multidimensional problems rather than a skill problem. Also training cannot be a solution to a problem that lies outside the job activity of teachers (David and Stephen, 2008). For example, if salaries of teachers are low, if supervision is poor, if teachers' benefits are inadequate, or if the physical work layout is deficient, spending on teachers' training may have little or no effect on productivity, since inadequate performance is due to conditions that training cannot remedy.

Once it has been determined that training is necessary, its goal must be established. Management should explicitly state what changes in teachers' knowledge, skills and attitude, or social behavior is desirable. It must be determine what is to change, and by how much. These goals of course should be tangible, veritable, and measurable. They should be clear to both the management and the teachers (David and Stephen, 2008).

2.3 Types of In-service Training

There are several types of in-service training in organisations including the Ghana Education Service which can use in providing in-service training for their workers. Some of these in-service are discussed below.



In the first place, Adeniyi (2009) identified workshops as one of techniques used by the GES in providing in-service training for teachers in the teaching profession. This technique usually involves period of discussion and practical work on a particular topic, where group of teachers share their knowledge and experience. By this technique, teaches attending the workshops brainstorm and exchange views on teaching handwriting. Generally, workshops have durations of between three to ten days depending on the gravity of the problem. Seminars in Becker and Huselid (2010) view are organised in small group of teachers coming together to discuss a topic and each attendant has the opportunity to obtain and to increase his or her knowledge and experience in an area of concern. In this regard, the special area of concern to the teachers is to acquire specific knowledge in teaching handwriting.

Black and Lynch (2009) referred to conference which is a gathering of attendants to discuss and exchange views that are relevant to their areas of concerns. In the case of teachers, an area of concern will be centered on acquiring skills to effectively teach handwriting at the basic level of the educational lather. Typically, the conference of teachers, principals, supervisors, and administrators are given the opportunity to enhance their professional prospect and inculcate in the participants a professional team spirit. In using study circle as a technique for in-service training, Carl (2008) revealed that, it offers teachers the opportunity to discuss a particular subject, and in that meeting, they discuss the ways and means of teaching that particular subject. As an in-service technique, lectures offer oral activities, bringing up the simplest of ways practiced for in-service education and teachers' re-orientation programs. They are suitable particularly for transmission of knowledge (Carl, 2008).



In using demonstrations as an in-service training technique, Delery and Doty (2009) argued that, they are activities that are pre-arranged for the observation of a group of teachers. According to Evans and Lindsay (2009), the demonstrator who comes in as a facilitator is usually a skillful professional of the field being demonstrated. In this regard, the demonstrator hard work to make sure that, the demonstration as an in-service training technique is genuine and natural, so that artificiality could be avoided. Demonstration may be used for workshop or any other course of study where knowledge and skills are being improved. After the demonstration, a follow up should be made (Handerson, 2012). Project group is cited by Handerson (2012) as atypical example of demonstrations as an in-service training technique. This is used in instances where the achievement of a specific project is to be carried out, for instance acquiring skills in teaching handwriting effectively. The project group usually makes survey of the project assignment and develops a course of study.

Wood-ward (2012) on his part help the opinion that, vacation institutes are of high value for the teachers for many reasons such as enriching teachers' body of knowledge and enabling teachers to return to their schools with renewed and transformed spirit. Also, vacation institutes make full use of the vacation in a better as well as creating opportunities of enjoying the life of studentship. In the teaching profession, the GES identifies two major types of in-service training which can be used by schools in their respective jurisdictions in the Metropolitan, Municipal and Districts. These two major types in-service training are School-Based (SBI) and Cluster-Based (CBI) in-service training. SBI is a type of in-service training which is organised at the school level by the teachers in a particular school to resolve some special and specific needs or deficiencies identified in the school (GES, 2010). CBI on the other hand is a category of in-service training for teachers from a number of schools that come together once in a while for



training. Irrespective of the type of the in-service training, whether SBI or CBI, it is essential to assess the training needs of the teachers and to resolve specific difficulties of the teacher, the pupil and the teaching content (GES, 2010).

In Ghana, it is observed that past in-service training programmes were organised along the lines of CBI in-service training, where both experienced and new teachers were trained like teacher trainees regardless of the specific training needs of each individual teacher (GES, 2010). These in-service training programmes therefore did not have much impact on the performance of the teachers (GES, 2010). As school curriculum changes, teachers also had to modify their approach in terms of pedagogy and subject content knowledge to cope with such changes. As a result teachers have to undergo in-service training to prepare them to cope with curriculum change, pedagogical skills, and to provide them with the knowledge and skills to improve teaching and learning in the classroom (Guskey & Sparks, 2012). The purpose of in-service training therefore is to help in the professional development of teachers.

2.4 Functions/Purpose of In-service Training

In-service training very purposeful since it re-orientates teachers to acquire new values towards achieving certain goals. Nadia (2010) argued that, in-service training prepares teachers to cope with curriculum modifications, to train them in new teaching and learning technique, and to provide teachers with the requisite knowledge and skills to teach new and more innovative learning techniques. This therefore intend to provide useful practice-related in-service training that meets the requirements of the new curriculum that results in improved teaching and learning in the classroom (Wayne and Young, 2013). According to Wayne and Young (2013), in-service



training for teachers is a strategy aimed at achieving the required educational goal. This is so since in-service ushers teachers into the new educational system in respond to technological, social, political, and cultural changes. As an agent of change, in-service training has become very essential in the teaching profession since it brings about change in technology; realign teachers to their respective jobs, and the increasing complexity of the administrative task. It is therefore not limited to certain individuals (Stewart and Hart, 2012). All teachers irrespective of status require training to give teachers a sense of security and a feeling of self confidence while discharging their routine duties in the school (Strain, 2009).

Likewise Strain (2010) assertion, Quartey (2012) indicated that, in-service training facilitates the expansion current knowledge of teachers in a given subject, develop new knowledge, and to fit into their appropriate places in their respective schools. Also, it facilitates the plan and develops their own work carefully and systematically. Through in-service training, teachers may also become more mindful and thoughtful of strategies for positive change in teaching and curriculum development trends such as handwriting. As many teachers enter the profession without having received specific training for curriculum development (Carl, 2008).

Oguntimhin (2011) and Akinyemi (2009) acknowledged the role of in-service training to include; improved productivity, improved quality of teaching, enhanced skills, knowledge, understanding, and attitudes, improves the use of tools and eliminates obsoletes in teaching handwriting skills. They further indicate that, in-service training makes it possible for the teacher to positions properly to the level of performance which needs the performance for the teaching profession. It can therefore be concluded that, in-service training enhances the implementation of new policies and regulations, prepares teachers for achievement, improves manpower development, and ensures the survival of



the institution. Jones (2010) stress the fact that, in-service training results in ensuring essential changes in education since it could influence the objectives and strategies of improved teaching and learning. The significance of in-service training is undoubted since changes in the circles can make the skills learned today obsolete in the future. Also, planned organization changes and expansions, can make it essential for teachers to modernize and improve their skills and knowledge, or acquire new ones (Johnson, 2009). In-service training must be directed towards the accomplishment of some organizational objectives, such as more efficient and effective teaching methods, improved quality of teachers' skills and knowledge, or reduced operating cost of providing the desired services. This means that, schools should commit their resources only to those training activities that can help in achieving their objectives (Jones, 2010).

As indicated by Henderson (2002), in-service training for teachers bring lifeline to their profession, and a booster that prevent fallen standards. This disease would make teachers to incessantly act in the same old way even in the face of innovations and changes. In his opinion, Coray (2010) asserted that in-service training is essential to adequate professional improvement of teachers at their respective schools. He therefore stressed that current expectations from schools and their teachers who are responsible for the quality of schools, has made it impracticable to depend fully upon pre-service preparation for teachers.



In-service training brings about very rapid and continuous change, resulting from demands outside the education world to more of internal re-orientation of teachers' attitudes in their schools (Jacob and Lafgren, 2010). Therefore, one can argue that, greatest revolutions in contemporary time are knowledge explosion which can be said to begin on a new scale in the 21st Century. With particular reference to education, Hass (2009) proposed that, the growth of knowledge is very apparent in new developments that require innovation. Hass (2005) maintained that in-service education programs are needed to bring teachers closer and to assist them internalise new teaching techniques and organisational procedures such as the conceptual approach, inquiring teaching, simulation, role playing, system approach, team teaching, the open plan and the use of a wide range of audio visual materials. Johnson (2009) noted that, the last five decades have witnessed a considerable growth of knowledge in supporting field of behavioral sciences, particularly psychology.

The original teachers' preparation is totally not enough for continued success in teaching. In view of this, Wayne and Young (2013) revealed that improving teachers' quality through in-service education is also very instrumental in promoting high efficiency among teachers in both primary and secondary schools. This was further strengthened by Stewart and Hart (2010), when they asserted that through in-service training, teachers become responsible for their own growth and effectiveness, and they therefore become more sensitive, insightful, open to more options, and less frightened to innovations and changes. Similarly, Goldhaber and Brewer (2010) emphasised the fact that, the main objective of in-service education is incessant improvement of the teachers' performance, effectiveness, and efficiency in classroom related activities.



To Photanan (2014), in-service training is seen as a very significant tool that can be used as a motivational program for teachers' career development. This is so because in-service training therefore gives motivation to teachers for their performance enhancement (Wood-ward, 2009). Strains (2008) elucidates the success of in-service training in the sense that, with in-service training, teachers' become familiar with new teaching trends and develop new instructional style, moving from creating instructions to managing resources and student, and disseminating views. As a result, the need for enhanced productivity in schools in terms of teaching handwriting has become generally accepted and it depends on well-organised and effective training schemes.

In-service training is very essential in view of development it introduces in modern world of teaching and learning of handwriting. Consequently the role played by staff training and development cannot be overemphasized. Though the need for schools to embark on teachers training and development has become obvious, absence of these programs often manifests tripartite problems of incompetence, inefficiency and ineffectiveness (Harris and Sass 2008). Oribhabor (2010) thought that in-service training assists the development of proficiency in teaching handwriting for the furtherance of bettering students' performance. Conco, (2010)revealed the immeasurable value of in-service training to include an avenue to acquire more and new knowledge and develop further skills and techniques to function effectively in teaching handwriting. Similarly, Quartey (2012) argued that, the more teachers are trained and are satisfied with their job, the more they help enhance their organisations' performance. In examining the effect of in-service training on teachers' effectiveness, productivity and performance in the teaching of handwriting, Huselid (2009) suggests the call for transformed attention to in-



service training due to its ability to cut costs and reduce performance shortfalls. It has been established that, there is a strong correlation between various in-service training schemes and teaching effectiveness and productivity (Becker and Huselid, 2009). The findings of Rossett (2011), confirmed that, in-service training increases teachers' inclination to perform better in the area of teaching handwriting. Evans and Lindsay (2009) on their part revealed that, schools that are committed to quality investment in training and development of their employees receive an exponential growth in teachers' job performance and general efficiency. Huang (2013) in support of Evans and Lindsay added that, organizations that train their workers reduce turnover rate. Black and Lynch (2009) indicated that, school authorities that provide in-service training augments teacher productivity and performance. The above empirical finding suggests that schools that train their teachers time and again have better outcomes than those that do not. Huang (2013) agreeing to the finding of Bishop (2004) indicated that, in-service training is undoubtedly an obvious driving force for school's expansion training programme as well as building capabilities and subsequently productivity of teacher in the languages.

In exploring the purposes of in-service training on educational institution's growth, Jones (2010) confirmed that increasing training efforts increases workers' job effectiveness and performance and of course the institution's efficiency. Teachers through in-service trainees are equipped with basic pedagogical content knowledge, curriculum knowledge, subject content knowledge, knowledge of learners and their characteristics (Anamuah-Mensah & Asabere-Ameyaw, 2004) to teach handwriting effectively at the basic level. In-service training trains specific teachers who are not specialised in all teachers at the basic level. Often these skills are taught through



separated courses, where theory is presented without much connection to practice (Jibola, 2009). In-service training of teachers has broadly been viewed as the diversity of activities and practices, in which teachers are involved so as to enrich their knowledge, improve their skills in teaching and also enable them to become more efficient on the job (GES 2007). Tripathi (2009) referred training as the act of increasing the knowledge and skills of teachers for doing a particular job. He further argued that specific skills are imparted for particular purposes during training. Relating this argument by Tripathi (2009) to in-service training of teachers, it is expected that the knowledge and skills of teachers for teaching will increase by in-service training. Since it is job related, the content of in-service training should therefore be carefully selected to match the needs of the changing knowledge and pedagogy of teaching. This view is in line with Harris (2010) assertion that training should be structured to meet the changing need of the workplace and the workforce. Such training is necessary to re-orientate teachers to changes in the educational transaction (Conco, 2010).

Witkins (2009) indicated that in-service training is usually one of the key ways in which teachers continue to acquire knowledge and skills in the course of their jobs. The researcher agrees with the above authors on the definition of in-service training but thinks that the in-service training should be need based (Conco, 2004). GES (2010) and Conco (2010) asserted that in-service training facilitate teachers' efforts to expand their knowledge of a subject, especially teaching handwriting, develop new information and fit into place with colleagues at their respective schools. Since many teachers enter the profession without having received specific training for curriculum development, in-training becomes a matter of necessity as argued by Carl cited in Conco (2010).



The Ghana Education Service-GES (2010) identified the objectives of in-service training as to:

- Improve and increase teachers' knowledge on the content of academic subjects in order to become more competent.
- Introduce new ideas, policies and new curriculum content to teachers.
- Enable teachers to acquire new teaching methods and materials for specific subject content areas.
- Improve the professional status of teachers and enhance their self-confidence in their lesson practice.
- Train teachers in class management and in school administration.
- Help teachers develop skills in human relations management.
- Encourage team work among teachers" (pp. 3). It could be deduced from above that in-service training has the potential of improving teachers' competencies in the classroom.

2.5 The Challenges Teachers Face in Teaching Handwriting

Although, professional development initiatives are significant and resourceful in disseminating information and ideas, there are some challenges and difficulties that impede the professional development efforts of teachers in the teaching profession. Zimmerman and May (2013) identified some of these challenges in teaching handwriting as inadequate of time, money and support from the various education directorates for teachers. In addition, Becker and Huselid (2010) suggested that when professional development is designed and delivered without a clear purpose or consideration of teachers' interests and needs, it is more likely to result in teachers becoming resistant,



pessimistic, and irritated. It is consequently very important to regard teachers' in-service training needs in order to further facilitate teachers' participation so as to enjoy the needed benefits from such programmes. Professional development in the field of linguistic education is considered to be any intentional sustained activity in which teachers engaged for the express purpose of improving their knowledge and skills to teach students science (Banilower et al., 2010). This situation usually results in the less likelihood of teachers attending professional development programmes such as the SBI and the CBI in their respective teaching locations. Since professional development programmes (SBI and CBI) are generalised without consideration of the linguistic teachers' needs. These needs are to be considered in order to ensure handwriting is taught effectively in schools.

In Akerson and Hanuscin (2007) proposition, effective professional development programmes increase teachers' understanding of subject content thereby increasing their confidence and their ability to teach handwriting effectively in their respective classrooms. When teachers are certain without any doubt in the subject matter they teach, it results in quality instruction, which eventually leads to higher student performance (Banilower, Heck, & Weiss, 2011). For subject teachers, professional development should be on-going and should relate directly to their field in order to get the most benefit from the material being learned and to keep teachers updated on new teaching strategies and content to improve students' performance. Relating to the needs of training of teachers, one area that needs to be discussed is whether it is school location related.



According to Aboagye (2009) the policy of training teachers has faced some difficulties resulting in criticism by some educationist including Principals of training colleges in Ghana. They are of the view that generalist teachers might have shallow knowledge in both the content and the methodology of the subjects studied leading to poor lesson delivery whilst some teachers shy away from teaching subjects they are not comfortable with, for example mathematics and science. Again, they argued that the generalist teacher might not bring about the quality teaching and learning for the country's development. Anamuah-Mensah and Asabere-Ameyaw (2004) agreed to this assertion and indicated that the basic skills given in science and mathematics to trainees are taught in isolation and with less emphasis placed on the subject content knowledge.

The challenges posed by social and cultural evolutions of the 21st century, like technological change, population explosion, poverty, energy crisis, pollution and other threats to human existence at both national and international levels, and the hope of meeting the challenges through in-service education have been explained in the words of Akyeampong (2010) that, it is imperative that teachers above all other things, should be sensitised to the cultural modes that are in conflict with those of an earlier generation. Music, arts, eating habits, tourism, poetry, film, television, dance, sports, attitude to work, money, leisure, and personal relationship revealed discriminating differences between young and old, and even with middle aged. It is thus a legitimate purpose of in-service education to enable teachers absorb an understanding of the new development and their educational and cultural repercussions (Aboagye, 2009).



As emphasised by Abu Bakar and Tarmizi (2009), teachers expressed the concern that, in-service needs for training in generic and pedagogical knowledge and skills could be currently seems to be in contradiction with the innovations in the teaching and learning activities of the current integrated linguistic and technological syllabus. Inquiry activities and problem solving are less emphasised in order to provide opportunity for students to develop their curiosity, creativity and keenness as they explore the teaching of handwriting in basic schools.

Since modern technological trends has shifted the role of the teachers from transmission of knowledge to that of a facilitator to provide guided opportunities for pupils to acquire as much knowledge and skills in science as possible through their own activities, the organizers in-service training have not been able to infuse technological and new innovations in delivering training needs teachers (Anderson, 2011). This shift in role has placed huge demands on the teachers, therefore, teachers would need intense and supported learning experiences to change their teaching strategies to enable them play their new role effectively. Anderson (2011) assertion is in consistent with the findings of Abu Bakar & Tarmizi (2009) who revealed that, teachers focused more of self improvement such as being creative in teaching instruction, updating knowledge of science innovations in science instruction and understanding the goals of the syllabus.

Without mastering of generic and pedagogical knowledge and skills in delivering the in-service training of, the teachers' knowledge and understanding would remain unspoken and unavailable for teaching, and hence would not be able to help students develop the desired understanding of handwriting (Anderson, 2011). The second most prevalent in-



service difficulty of teachers, planning activities during in-service instruction could be entrenched in the teacher's inclination to motivate their students to learn the handwriting.

According to Ngman-Wara (2015), thorough planning of handwriting lessons are usually prepared along with the use of instructional objectives, results in more students on -task behaviour, and lessens student disruptive behaviour. The existence of students with different abilities levels could be typical in the Ghanaian classroom thus, creating certain difficulties for teachers to plan lessons that interest and attract especially students with low ability levels. The teachers' awareness of the importance of planning writing lesson to attract learners by varying their pedagogical approaches and teaching learning materials to keep students attention and interest may have contributed to their call for in-service training in planning activities in science instruction (Blankenship & Moore, 2009). Given the current educational climate of linguistic for all, teachers echoing generic and pedagogical knowledge and skills and planning activities in handwriting instruction as their most prevalent in-service needs seem inappropriate thereby creating certain challenges for both trainers and participants. Therefore in-service training programme should be designed to address these demands (Cohen & Hill, 2010).

The teachers paying less attention to their own in-service need has made teachers unable to diagnose and evaluate students towards ensuring effective teaching and learning of handwriting. The possible reason for this concern could be associated with the introduction of the School Based Assessments (SBA) in the basic schools. The new SBA system was designed to standardize the practice of internal school-based assessment in all schools and to reduce assessment tasks for teachers. The new SBA formally referred to as continuous assessment system is designed to provide schools with an internal assessment



system which is based on all three profile dimensions (knowledge and Comprehension 20%, application of Knowledge 40% and experimental and Process Skills 40%) is to raise students' school performance and to be used by WAEC for determining examination results at the Basic Education Certificate Examination (BECE) (MoESS, 2007).

In most of the new SBA there are challenges spelling out the guidelines for constructing assessment items or questions and other assessment tasks, how often teachers are to assess their students as well as the marking grading system to use (Darling-Hammond, 2009). This does not assist in ensuring that pupils master the instruction and behaviours implied in the specific objectives of each unit of the English language. Apart from the SBA, teachers are expected to use class exercises and home work as processes for continually evaluating pupils' class performance, terminal examination, and as a means for encouraging improvements in learning performance. These could have timely and regularly give feedbacks motivate and aid students to assess their performance (Darling-Hammond, 2009).

Affirming the assertion, feedback from these assessments are vital components which enhances learning and retention because the information helps the learner to structure their learning and also guide them to self appraise their learning, but not sufficiently made available to facilitate the conduct of SBI (Tierney & Charland, 2010). Teachers calling for in-service training for diagnosing and evaluation suggest some handicap in their new role. It is therefore important to adequately equip the teachers with knowledge and skills in diagnosing and assessing students for achieving the targeted instructional outcomes. Appropriate use of assessment in the science lessons improves teaching,



students' learning and maintaining student interest in the science concepts with which they are engaged (Treagust, 2010).

Fredua-Kwarteng and Ahia (2015) disclosed the fact that, differences in perceived in-service needs of rural and urban junior high school science teachers also created certain challenges. According to Fredua-Kwarteng and Ahia (2015), over 60.0% of the teachers in the urban and the rural schools demonstrated moderately needed and greatly needed in all the six in-service need dimensions, however, their greatly need for each dimension ranked differently. The teachers in the rural schools expressed their most prevalent in-service needs in knowledge and skills in School Base In-training-SBI (35.0%) and generic pedagogical knowledge and skills (32.5%). On the other hand, teachers in the urban schools demonstrated the lack of prevalent in-service need in generic pedagogical knowledge and skills (28.6%) and planning activities in science instructions (26.5%). There was significant association between school location and the dimensions in terms of in-service training schemes. Furthermore, the rural teachers expressed more need in all the dimensions than their counterparts in the urban schools. These findings are in consistent with the findings of Osman et al. (2010) in their study what linguistic teachers need to improve their instruction: a comparison across gender, school location and area of specialisation. The teachers in the rural schools expressed more in-service need in all the dimensions as compared to their counterparts in the urban schools.

In Green and Salkin (2008) view, it appears that teachers in the rural schools have inadequate content knowledge to teach handwriting effectively as compared to teachers in the urban schools. This is measured in terms of the academic and professional background of the teachers. This is shown as 61.2% of teachers in the urban schools are



professional science trained as oppose to 55.0% of teachers in the rural school. This infers that urban schools teachers are better are exposed to more organize in-service training than their rural counterparts. This assertion is in accord with that of Rakumako and Laugksch (2010) who they asserted the demographic profile and perceived in-service needs of linguistic teachers in Ghana. They indicated that older, more experienced teachers of linguistic and handwriting are found in urban schools rather than in township or rural schools. In-service training conducted in generic pedagogical knowledge as Harris (2010) argues does not provide the required and specific skills aimed at equipping teachers adequately to use teaching strategies that would enhance both teachers and students thinking skills. More especially, with emphases placed on problem solving and inquiry teaching activities in the new syllabus relating lower primary level. This new teaching approach has place huge demands on the teachers. Thus, their call for this dimension seems expected when inadequate in-service training has been given to few teachers especially after the implementation of modern teaching methodologies.

In the urban schools, teachers are given one-shot in-service training on the JHS curriculum after its implementation. Therefore, teachers need updates on teaching approaches to implement the latest curriculum. Finding the need to have adequate control on pedagogical approaches to help students develop the interest, understanding of scientific concepts and to improve their performance is in the right direction. On the other hand, teachers in the rural schools are denied of in-service training in knowledge and skills in science subject and generic pedagogical knowledge and skills seem expected especially with addition of new topics for example, electronics and agricultural science and new teaching approaches (problem solving and inquiry) in the current syllabus (Idris,



2012). This innovations demand on the teachers the need to be updated on the new contents and new approaches to be competent to teach handwriting effectively. Once more, when some rural schools are recording zero percent in the Basic Education Certificate Examination results (BECE), this has placed anxiety on the teachers in the rural schools more especially with District Directors challenging them to be up and doing to help improve students' performance in the BECE results, thus, contributing to such feedback. Apart from the above fifty-five percent (55 %) of the rural school teachers are not professional science teachers and eighty percent (80 %) of them had not participated in any in-service training programme (Lee, 2013).

It is therefore important that rural teachers knowledge and skills in subject needs to be addressed immediately so as to make them competent enough to teach the existing subjects, especially handwriting effectively. This proposition also corresponds with that Rakumako and Laugksch (2010) who reported that in-service programmes should aim at helping rural teachers by specifically upgrading their content knowledge and teaching skills (i.e. their greatest professional need). However, this is not usually the case and the reality on the ground.

Akerson and Hanuscin (2007) revealed, professional development programmes which could have increased teachers understanding of the required content are losing confidence in their ability to teach in their respective classrooms since the in-service training seem not to be providing them the right expertise. When teachers are confident in the subject matter they are able to provide quality instruction, which also leads to higher student achievement (Banilower et al., 2010).



2.6 Effects of Handwriting on Students Performance.

According to Tamara and Jan (2014) citing (Abbott & Berninger, 1993; Overvelde & Hulstijn, 2011) handwriting is a operational complex task in which lower-level, perceptual-motor processes and higher-level cognitive processes interact, allowing for communication of thoughts using a written code. Also, it is a skill that is required for full participation in school activities since pupils spend up to half of their classroom time engaged in paper and pencil tasks daily (Kushki, Schwelnus, Ilyas & Chau, 2011). Feder & Majnemer, (2007) graphomotor (handwriting) difficulties have a profound impact on a child's academic success and self-esteem. Proficiency in handwriting is significantly correlated with academic achievement and is a predictor of general learning abilities (Kushki et al., 2011). Approximately 10-30% of children have difficulty mastering the skill of writing and this problem is most common among children with various disorders, such as Attention-Deficit Hyperactivity Disorder (ADHD), learning disabilities, and speech and language difficulties (Graham & Harris, 2005).

Over the last fifteen to twenty years a group of researchers in the United States have investigated the role of handwriting in the process of writing (Berninger, Vaughan, Abbott, Abbott, Rogan, Brooks, Reed, & Graham, 1997; Graham, Harris & Fink, 2000). Interestingly, they have established that handwriting is not purely a motor act but rather it is "language by hand" cited in (Berninger et al., 2006). By conducting cross-sectional, longitudinal, and instructional studies, these researchers examined how language works with sensory and motor systems to produce and receive language (Berninger, 1999; Berninger & Abbott, 2010; Berninger, et al, & Richards, 2002). A considerable amount of time has been spent examining the four separate and interacting functional language



systems: language by ear (listening comprehension), language by mouth (oral expression), language by eye (reading comprehension), and language by hand (written expression). Which is significance for the purpose of the present discussion, handwriting has been shown to be an integration of orthographic codes (letter forms), phonological codes (letter names and sounds), and graphomotor codes (written shapes) and this is why it is referred to as language by hand (Berninger et al., 2006).

The concept that handwriting is not merely a mechanical or motor skill is further supported by Richards et al. (2011) who claim that it is rather a “brain-based skill that facilitates meaning-making as writers externalise their cognitions through letter forms, the building blocks of written words and text” (p. 512). Similarly, Christensen (2005) suggests that handwriting is not just about training the hand (motor skill); but it is about how memory and orthographic processes must work together to be able to recall the letter shapes and translate these patterns onto the page automatically. This skill is termed orthographic-motor integration and it has been shown to contribute more to handwriting than to motor skills (Berninger & Amtmann, 2003). Thus, handwriting as a language act is an important part of writing and not just a motor act that is used to record writing (Medwell, Strand & Wray, 2009).

Handwriting contributes directly to compositional fluency and quality for both beginning (primary grades 1 to 3) and developing (junior grades 4 to 6) writers (Graham, et al & Whitaker, 1997). Graham and his colleagues (1997) used multiple-group structural equation modeling to analyse the relationships between transcription (handwriting and spelling) and composition in 600 students, grades 1 to 6, who were virtually all general education students ($N = 599$) and right-handed (90%). After implementing two, timed



handwriting fluency measures (alphabet and copy task), three spelling measures (dictation and assessment of spelling in separate writing samples), and two composition measures (narrative and expository) the researchers developed two structural models. The results of the model of compositional fluency showed that the relationship with handwriting and spelling were significant in the primary grades but in the junior grades only the relationship with handwriting was significant. In the second model, a model of compositional quality, only the relationship with handwriting was significant for all six grade levels. Spelling only contributed to compositional quality indirectly through its correlation with handwriting. Overall, the study showed that, due to the large proportion of variance that was accounted for by a combination of handwriting and spelling in compositional fluency (41% in primary grades to 66% in junior grades) and in compositional quality (25% to 42%), the transcription skills necessary for writing affect students written composition throughout elementary school. Their research is supported by others and suggests that orthographic-motor integration accounts for more than 50% of the variance in written language performance in individuals from primary through to secondary school and even into adulthood (Bourdin & Fayol, 2002; Graham et al., 1997; Jones & Christensen, 1999).

The connection between handwriting and reading is discussed in the reviews by Richey (2008) and Vander Hart, Fitzpatrick, and Cortesa (2010), wherein they point out that learning how to write individual letters and spell words has been shown to reinforce the skills of letter naming, phonemic awareness and word reading. Interestingly, writing and reading appear to share a close and reciprocal relationship (Graham & Hebert, 2011). This is seen in Abbott and Berninger's (1993) structural equation modeling approach to



analysing writing skills when they found that oral language and reading contribute uniquely to written composition in early primary school years. In addition, others have found that practicing handwriting is important for the development of early reading abilities because early print exposure is an important component of learning language code (Levy, Gong, Hessels, Evans, & Jared, 2006).

Typically, handwriting development begins at an early age between the ages of three and four, the underlying features of handwriting, like directionality and linearity, begin to appear in the scribbles, wavy lines, pseudo-letters, and pictorial representations produced (Beery & Beery, 2010; Graham & Weintraub, 1996). By four to five years of age, letters are beginning to become part of children's writing, although they often happen along with pictures during the kindergarten years. A child's ability to copy geometric shapes, specifically the oblique cross, is seen as an indication that the child is ready to write (Beery et. al, 2010; Feder & Majnemer, 2007). Dramatic changes occur in the early elementary grades with handwriting, progressing from irregular to smooth and consistent output, indicating improvement in legibility. The speed at which children write steadily increases from year to year throughout the primary and junior grades (Feder et. al, 2007). Little is empirically known about handwriting development beyond elementary school and more research with older students is necessary to link what is known about the developing capabilities of children to the skilled handwriting of adults (Graham & Weintraub, 1996).

Competence in handwriting is usually described in terms of legibility and speed. Legibility refers to the readability of the written text (taking into account elements such as letter formation, size, alignment, and spacing) and is often what is judged and seen as a



reflection of the writer's intelligence or capabilities (Feder et. al, 2007). It has been illustrated that, despite similar written content, lower marks were consistently assigned to students with poor handwriting in comparison to those with neater handwriting (Connelly, Campbell, MacLean & Barnes, 2006). As Sassoon (2006) points out, poor handwriting is a demoralising and constant reminder of failure at any age but especially to those in secondary school and on into adulthood. Handwriting speed (typically measured as the average number of letters or words written per minute) is another essential measure of handwriting performance since writing needs to be completed within a reasonable span of time to be functional (VanDrempt, McCluskey & Lannin, 2011). For those involved in handwriting instruction and intervention, it is important to keep in mind that handwriting must be explicitly taught.

Berninger and Amtmann (2003) support this claim and they stress the importance of having learning environments that allow students with transcription problems to think of themselves as writers and they encourage daily writing. They argue that if the students are permitted to avoid handwriting then a self-perpetuating cycle is created in which poor handwriting breeds poor handwriting through lack of practice. Berninger et al. (2003) do not recommend the use of alternative computer-based technologies commonly used to bypass handwriting challenges (keyboarding, voice recognition programs, word prediction software) since these technologies create new tasks for the individual who may or may not be able to handle the varied processing requirements. Berninger et al. (2006) proposed that typing and handwriting are only moderately correlated and use separate neuropsychological processing systems. Surprisingly, there has not been a lot of research to support educational applications of technology-based accommodations on the writing



process and it was recommended that they should only be used after explicit handwriting intervention has been implemented and writing challenges are still evident (Berninger et al., 2003). These studies support the notion that once students have adequate transcription skills or, in cases where this is not possible, an appropriate computer-based compensatory tool for handwriting, they should be encouraged to progress and to gain experience in expressing their ideas through writing.

Occupational therapists, Bartorowicz, Missiuna, and Pollock (2012), from McMaster University in Ontario, Canada were the first to critically review the use of technology for children with learning disabilities who required support in written performance. After conducting a systematic electronic literature search, only 28 peer-reviewed studies of the initial 864 met their selection criteria that included children with learning disabilities, in grades 1 to 12, who used technology for writing. In general, this review indicated that evidence is moderately low to support the use of technology and that a direct link between writing difficulties and the usefulness of a computer-based technology to solve these difficulties cannot be made based on the available research.

The majority of handwriting remediation studies focus on children between five to ten years of age (Feder et al., 2007; Yancosek & Howell, 2011). An in-depth analysis of handwriting curriculum and instruction in four North American kindergarten classrooms was carried out using both quantitative and qualitative methods (Vander Hart et al., 2010). Below are eight of the most effective, research-based instructional handwriting practices that were outlined in Vander Hart et al., (2010) review of the current literature. This review was based solely on primary research in peer-reviewed publications and the



following practices are what they determined to be effective and recommended for classroom use.

1. Frequent/daily lessons: Research findings have demonstrated that fifty (50) to hundred (100) minutes of handwriting instruction per week with daily practice is optimal.
2. Direct and Explicit Instruction: The educator instructs students on how to form upper and lowercase letters in a specific order so that similarities or differences between letters can be emphasised.
3. Modeling: The educator demonstrates proper pencil grip, paper position and letter formation.
4. Guided Practice: Students trace copy and use visual cues to learn how to form letters, than they produce the letters from memory.
5. Use of Feedback: The educator encourages students to correct/rewrite poorly formed letters and praises them for correctly formed letters too. Monitoring while the students are in the process of writing is important so that the product is not the only thing being assessed.
6. Independent Practice: Students should be given lots of opportunity to practice and review handwriting. Having the students self-evaluate their writing (i.e. circle the best formed letter that session) is also a very effective strategy.
7. Integrated Lessons: The educator incorporates an integrated method of teaching letter names and letter formation. Teaching handwriting within the context of a writing assignment can help to develop fluency and legibility.



8. Writing Materials: It is recommended that several types of paper and writing utensils be available for the students to choose from when first learning to handwrite.

2.7 Strategies to Enhance Teaching of Handwriting

Pupils with writing problem have difficulties in writing to communicate their ideas. They may present difficulties in making sentences, using punctuation in sentences and using grammatically accepted vocabulary and paragraph organisation. It may be difficult for someone to read their handwriting as some of them write letters upside down or mirror writing. Most of them have many spelling mistakes in their writing. With these problems, they are always faced with poor academic achievement (Payne and Turner, 1999 & Strickland et al, 2002). Nevertheless, teachers should know that pupils learn in different ways hence have different strengths and weakness. For instance, a pupil who is not good at writing may be talented in other areas like drama or even physical education. Every pupil with a learning difficulty has his/her own learning style, interests, needs and strengths. Nonetheless, teachers and parents should be able to help the pupil to identify their strengths and interests (Shaywiz, 2003 & Anita, Hughes, & Walkup, 2008).

It is significant for these pupils to identify their areas of interests which they can excel in, this may make them feel they have something important to say and an area they can succeed in and see themselves as winners. It is also helpful for teachers to make the pupils aware of their learning difficulty and ability so that the pupil can have a positive self-image which help in building a successful and competent person. Teachers should give the parents and pupils examples of successful people who had reading and writing problem in school (Shaywiz, 2003). It is critical to remember that the degree in which



pupils experience problems vary from one pupil to another. Their areas of strengths and interests may be different too. It is therefore important for teachers to offer support to each pupil depending on his/her strengths, interests and needs (Shaywitz, 2003 & Kirk, Gallergher, Anastasiow, & Coleman, 2008). Some of the strategies that can be used by teachers to teach their pupils handwriting are: peer support in the learning process of handwriting, social skills in supporting learners with handwriting problem, teachers' collaboration during handwriting lessons, teaching and learning materials for handwriting and teaching methods of handwriting.

2.7.1 Peer Support in the Learning Process of Handwriting

The way pupils relate to one another in class can be a motivation to learning especially during class activity. When the activity is complex and requires problem solving skills, the weaker pupils get support from the able peers and this promotes cooperation amongst them. This interaction is likely to encourage the learning process and makes pupils feel that they belong to one family and it motivates them to work with each other (Strickland et al, 2002; Webb and Palinscar, 1996 in Anita et al., 2008 & Isaacs, 2012).

According to researchers (O'Donnell, 2002; O'Donnell and O'Kelly, 1994 in Anita et al, 2008), peer tutoring should be encouraged by teachers because it enhances personal interdependence, individual accountability and cooperative skills. It also enables pupils to respect each other's ideas/opinions and practice turn taking in the group. In the process of solving problems, they ask questions and seek explanations from each others, learn to organise their knowledge or answers by exchanging ideas. This interaction among peers can also cause cognitive conflict which encourages them to question their understanding



critically and try out new ways of solving the problem (O'Connor and Vadasy, 2011). Some pupils also enjoy as they learn from their friends due to freedom of expression as they interact. In the process of this interaction, peers build social relationships among themselves and emotional well-being. This makes them learn to show empathy and get concerned with one another as they share knowledge (Anita et al, 2008). As much as peer support is encouraged by many scholars because it promotes learning, it has some disadvantages, for example, some pupils may fail to participate because their able peers will do the task on their behalf, they may use the opportunity to socialise instead of learning, they may fail to tackle the question because they are rushing to finish ahead of others, instead of challenging misconceptions, they may support the misunderstanding and finally, they may consider their able peers as experts than teachers whether they are wrong (Anita et al, 2008).

2.7.2 Social Skills in Supporting Learners with Handwriting Problem

Pupils with a learning disability do struggle with academic achievement and have a feeling that they are failures in life. This has a negative effect on their self-esteem hence inflicts difficulties in their social skills. This is contrary to their able peers who appear to be socially competent and have well developed receptive and expressive language skills, high self-esteem and a sense of control of their lives. It is imperative that teachers pay attention to pupils' Social skill development, peer group discussions or corporative learning and encouraging learners to use their strengths and not weaknesses to learn. This can be done by employing teaching and learning strategies that incorporate all these (Alberta Education, 1996). Learners with writing problem may have difficulties with receptive and expressive language skills, visual-motor, auditory and visual processing.



They may also have shortfalls in the areas of memory, study and organisational skills, attention span and social skills. Teachers should therefore be aware of the fact that pupils with writing problem may have their own unique learning profile and that the degree of their difficulties also differ. It is important to resolve and offer support to every pupil depending on his/her strengths and needs (Alberta Education, 1996).

2.7.3 Teachers' Collaboration during Handwriting Lessons

This is sometimes referred to as team teaching which is done by inviting other teachers, teacher assistants or special educators to give pupils an additional support apart from the one offered by the classroom or subject teacher when the lesson is in progress. The extra classroom teacher is in a position to assist and supplement the teaching strategy of the regular classroom/subject teacher in relation to the curriculum and teaching methods (O'Connor and Vadasy, 2011). Collaboration among teachers during the lesson is an effective teaching and learning strategy which encourages discussion and sharing of ideas. It reflects togetherness and a good working relationship. It is vital for individual development as they compare their problem solving strategies and identify their areas of expertise. The team work enables teachers to feel the support by other teachers to meet the individual needs of pupils in the classroom. It enables teachers to acknowledge their weaknesses without any feeling of embarrassment and accept corrections from their colleagues positively in order to assist the learners. This is because teachers have strengths and weaknesses too (Anita et al, 2008 & O'Connor et. al, 2011). Elements of this team work include: openness, communication or free interaction and honesty since it enables every teacher to evaluate his/her teaching strategies as discussed by the team members. This kind of collaboration allows teachers to share their successful strategies



and difficulties as well as challenges. By collaborating, teachers exchange ideas about appropriate teaching approaches with one another and this widens their knowledge on how to reach all learners in the classroom. The teacher will have an additional resource to help give support to learners. A teacher who practices sharing, partnership and peer support learning will try to introduce this kind of learning in the classroom by encouraging pupils to help one another and accept correction positively. They will also learn that every person/teacher has some knowledge that can be borrowed by other members of the team (Strickland et al, 2002 and Anita et al, 2008). Teachers may be able to combine forces and resources in order to plan the lessons and compose various activities for particular skills. They can advise one another on how to respond to everyday tasks of assisting learners with writing problem. By collaborating, they can identify their weak areas that need solutions in order to meet the learners' diverse needs in the classroom. This can help them create awareness on many ways of attaining different methods and goals of teaching in an ordinary classroom. Collaboration can also help them to identify effective classroom management strategies that can promote inclusion of all pupils as stated in most of the international and national policies.

2.7.4 Parent Involvement in Supporting their Children in Learning to Write

All parents may react differently when they are told that their child has a problem/difficulty in handwriting. It may be quite challenging for the parents to have a child with writing problem and they may take time to accept the problem hence their reaction may be unique. Information and facilitation by teachers to parents on the problem may be of great help for the parents. The home-school communication should continue to be encouraged in order for both parties to gain understanding of the



educational needs and strengths of the pupils. The parents' role is very critical as they have their child at home most of the time and should therefore play a key role so that they can have a meaningful role as one of the team member (Saskatchewan Education, 2004; Kirk et al, 2006 & Issacs, 2012).

Various intervention programs for learners with disabilities are formulated and monitored by a multidisciplinary team which may consist of special educators, peers, the learner's teacher, therapists and parents. Parents have three main responsibilities as collaborators in the learner's educational program. First, since they stay with the child at home and observe him/her, they are able to give information regarding him/her to the professionals which is vital for the development of the program (Kirk et al, 2008). They play a significant role in the teaching process especially at home after undergoing some training by team members like teachers on how to teach certain skills, for example, the daily living activities and academic skills. Lastly, they are in a position to back-up the learning of their children by applying the skills taught in school at home to create continuity between school work and home work. All these empower them to be active participants in the decision making process in the care of their children (Kirk et al, 2008). According to Guppy and Hughes, (1998), the benefits of parent-child bond and opportunities for individual teaching approach should be related to the school's provision to enhance a positive working relationship and atmosphere. When this collaboration is successful, the child feels a sense of security knowing that aims and values of his/her education are shared between school and home. They further argue that the parents also feel valued since the school approves their input in the child's learning. However, there are challenges that threaten the school-home team work, for instance, the distance



between school and home. The teachers may not know what takes place at home and vice versa. Another challenge is that a few parents/relatives may be willing to help the child at home due to lack of time especially the working parents. They may seek helpers' assistance who may apply their own methods of teaching the child. This interferes with the continuity of school-home work that should exist as stressed by the teachers (O'Connor and et. al, 2011).

The school should get a solution to these challenges by calling parents' meetings where the child's progress is discussed with individual parents and advice given on the choice of books to be bought, the time schedules for writing at home and how to support the child during writing. The school should also ensure that parents and teachers speak the same language by exchanging the child's reading and writing records and guideline on how to offer support to be provided by the teacher (Kirk et al, 2008).

2.7.5 Teaching and Learning Materials for Handwriting

Pupils can learn using a variety of sources like books, computers, pictures, cards and people such as teachers, peers and parents. To be able to meet individual needs of pupils in class, the teacher should know which way works best for each child by ensuring flexibility and child's choice in order to match the materials according to their diverse needs (Isaacs, 2012). It is difficult to teach in a classroom without using relevant materials to the lesson or topic. The resources should be up to date to enhance sensory curriculum and easy to be manipulated by all pupils in the classroom. Resources ranging from time, space, human and material may be considered in the classroom (LeRoy and Simpson, 1996; Stickland et al., 2002 & Isaacs, 2012). There are human resources which



without their back-up, the sensory curriculum may not be realised. Children with severe special needs may need intensive human support whose effective use should be deemed indispensable. The following are some of the human and material resources and how they can be utilised:

To start with, the head-teacher, as heads of the school, they should help teachers in planning the materials, observe them as they teach in class hence will appreciate the need for teaching materials in classrooms. Again family, when the parents are involved effectively in the learning process of their children, they feel valued and want to do more for the child at home. This helps in the curriculum development and also enhances good cooperation between school and home. Teachers should therefore organise reading workshops to facilitate to the parents how they can help the child to read and write at home using relevant materials. This provides one-to-one attention which promotes a healthy parent-child relationship (Strickland et al, 2002; Anita et al, 2008 & Isaacs, 2012). Another most important resource material is Volunteers these are people who freely offer their support to the pupils inside and outside the classroom. They should be given special part in the delivery of sensory curriculum but with close monitoring. They may have no expertise in planning the materials but can offer their services to individual pupils in class (Strickland et al., 2002).

Furthermore, teacher assist or support staffs: they always assist subject or class teachers to give a one-to-one support to pupils with difficulties in a particular subject. Their services are always of great help. Peers are also resource material as far as teaching of handwriting is concerned, when teachers give complex or unusual topics in class this may be a good opportunity for collaboration among pupils. For some pupils, peer tutoring



motivates them to read and write since they are guided by their age mates or play mates whom they are free with. Teachers should encourage peer tutoring to enhance learning in the classroom (Anita et al, 2008; Strickland et al, 2002 & Isaacs, 2012).

Apart from the above, there are also non human resource materials that teachers can use to support writing in class. Teachers of writing usually make successful materials that match the child's level of understanding and his/her difficulty. If it is good enough then it should motivate the pupil to practise writing, so this should be considered when choosing materials for the topic (Strickland et al, 2002). As mentioned earlier, the use of computer technology as a teaching material helps pupils in writing and they enjoy working with it because it gives them immediate feedback. It also maintains their interest in the activity. Other resources also motivate writing and should not only be books or printed text (Strickland et al, 2002).

Again, media play major roles in transmitting materials to students and support to create an effective and efficient learning process, including the learning of handwriting. According to Smaldino, Lowther, and Russell (2008: 6), media are means of communication. In addition, they state that media are anything that carries information between a source and a receiver. It means that in teaching and learning process, teachers can explain the materials using the learning media in a more concrete way. In line with this, Newby, Stepich, Lehman, Russell (2000: 100) state that media can serve or facilitate pupils learning process. Furthermore, they state that media can provide a stimulus-rich environment because they can provide vicarious experiences for students. Based on the statements, it can be stated that media are everything that can transmit learning materials from the sources based on a certain plan in order to create a helpful learning process so



that the receivers can learn effectively and efficiently. There are three kinds of media that can be used in teaching writing skill. Visual, example; pictures and photos, audio, example: tape recorder, cassettes, and radio, audiovisual, example: movies, and videos.

According to Smaldino, Lowther, and Russell (2008: 6) media are classified into six basic categories:

1. Text is alphanumeric characters that may be displayed in any format, for example: book, poster and so on.
2. Audio, includes anything that can be heard and it may be live or recorded, for example: teacher's voices, music and mechanical sounds.
3. Visuals are regularly used to promote learning, for example: cartoons and photographs.
4. Audiovisual / video shows motion, for example: movies, DVDs and computer animation.
5. Manipulatives are three dimensional and can be touched and handled by students.
6. People, for example: teachers, and students. All kinds of media can be utilised, if the media are relevant to the materials and effective to support the teaching of handwriting skill. Some of the instructional media above can be utilised to support the effective teaching of writing skill.

Related to this, Onasanya (2004) states that plethora of media offers teachers considerable opportunities to make their teaching more effective and efficient. Also she states that the effectiveness in the context implies how well educational goals and objectives are achieved, while the efficiency refers to how instructional media are utilised to achieve teaching goals and objectives. Therefore, the teachers need to consider



appropriate media in order to stimulate students to explore their ideas to help them in their writing process and make the students understand the learning materials given by the teacher effectively. It is also urgent for teachers to know functions of media in a learning process well. This attempt will help the teachers to select relevant and effective media that can be used to teach handwriting. This is to suggest that the functions of media that are used in a teaching process, including teaching handwriting are as follow: arousing and motivation the students, giving information, directing the students by giving clues of the materials which are taught, controlling the objectives of the study by helping the students to focus on the materials which are taught.

In teaching writing skill, the teachers need to use media that can motivate and help the students understand the materials. The use of media in the classroom is suitable to pupils who always have curiosity to something new, attractive, and modern. Consequently, the use of media in learning writing should be improved to arouse the students' motivation and help them develop their writing skills. Based on the explanations above, some kinds of media, including audio visual media for example, movies and videos, can be utilised as media for teaching handwriting. Through the use of these media, the students may get benefits in their writing processes. This is because the media support the learning of writing effectively and help to transmit the materials given by the teachers to the students. However, the use of media needs to be selected properly in order to be effective and relevant to the objectives of the study. Finally it is very clear that the important of media in teaching handwriting is quite obvious so teachers should do well and use media in their handwriting lesson delivery.



Another non human resource material for the teaching of handwriting in the classroom is Communicative Cartoon Movies. Cartoon is a decoration in the form of paintings or caricatures about people, ideas or situations which are designed to influence public opinion. Handwriting is an extremely complex cognitive activity, which requires the control of several variables. To solve the difficulties of handwriting teachers can use communicative cartoon movies as the main media to effectively improve the students' skill in handwriting.

In selecting communicative cartoon movies, one should be conscious about the characters, types and stories, for this is going to be shown to pupils. In the classroom apparently cartoons are one kind of instrument which has important potencies on the teaching. Besides, the movies that present cartoon characters will be interesting, colorful in showing a story and acceptable for any level of students. Therefore, the cartoon movies can be utilised in the teaching of handwriting. The movies that are selected to teach writing should be communicative. It means that the audio of the movies should include composed music and dialogues of the characters. Also, the visual images of the movies should demonstrate moves and interactions of the characters. In line with this, Champoux (2003), states that movies are unique media because of its abilities to present the power of sounds and the power of visual images. It means that the movies should present audios which contain communications or dialogues among the characters and composed music. Also, the movies should present visualisations which contain interactions and moves among the characters. As a result, the movies can be communicative and invite students' opinions or arguments related to the movie stories and help the students to easily understand the materials which are presented through the movie stories. In other words,



the students will be guided in their writing process in producing qualified outcomes. Finally the researcher believes that Cartoons are very important resource materials to enhance teaching of handwriting in the classroom.

2.7.6 Teaching Methods of Handwriting

Research has shown that when dealing with pupils presenting writing problems, the most common teacher approaches are the sensory-motor one and the auditory one. Collard, 2000 and Ott, (1997) affirm that the first approach increases the ability for the pupil to read while Duff and Clarke, (2011) point out that the second is better when the pupil presents hyperactivity. Research by (Miles, 2006; Speece et al., 1996; Vaughn, 1994 and Hallahan & Keogh, 2001) shows that under certain circumstances, an inclusive environment promotes the best learning outcomes for all. They further affirm that inclusion largely depends on teachers' attitudes towards learners with special needs and the resources available to them. In a number of studies, the attitude of teachers towards educating learners with writing problem has been put forward as a decisive factor in making schools more conducive for all learners. If mainstream teachers do not accept the education of students with learning difficulties as an integral part of their job, they will try to ensure that special teacher takes responsibility and will organise a secret segregation in the school (for instance, the special class). Research by Swanson (1999) shows that the following suggestions can be practiced when teaching pupils with writing problem, this include; use many strategies by cueing pupils, Practice interactive questioning and answering, teach problem solving, Explain information from simple to complex tasks by breaking it into manageable parts then combine and practice this for easy acquisition and retention of information, Use small group instruction, Match intervention strategies with





pupils' learning styles and strengths, Expose pupils to many types of writing materials to make an environment which is language-rich, Give clear and precise directions, Create regular opportunities to read and write, establish a good rapport with parents by communicating with them quite often and use a multi-sensory instruction approach. Engage pupils actively in the learning process. Bloom, (1987) affirms that if some of these considerations are applied in classroom when teaching pupils with reading and writing problem, then learners may retain about 90 Percent of what they say and do. Bloom, (1987) further asserts that pupils with reading and writing problem face many challenges in a school setting every-day and that adapted education can reduce these challenges. He argues that these pupils do not necessarily require a modified or different program but they need adaptations to the regular curriculum that meets their needs, interests and strengths. According to Saskatchewan Education, (1992), teachers need to adjust instruction, curriculum topics, environment and materials in order to accommodate pupils' diversity and help all pupils succeed in curriculum objectives. The adaptations should be given so that pupils with reading and writing problem can have the same opportunity as their peers without the problem in order to attain the learning objectives of the regular curriculum. This should not be seen as giving these pupils an advantage over the others or special treatment. It is very important for classroom teachers to keep a record of all the adaptations for easy handing over to the next class teacher when the year begins (Kirk et al, 2006; Anita et al, 2008 & Isaacs, 2012).

Finally, based on a review of the current literature, handwriting is an important, even vital, skill for individuals of all ages and in various settings. Research findings have indicated that handwriting is causally related to both learning to read and learning to

write. Studies have shown that handwriting contributes directly to compositional fluency and quality for beginning and developing writers and that automatic letter writing is the single best predictor of length and quality of written composition in younger students (Graham et al., 1997; Graham et al., 2000). Brain-based and applied research evidence lends support to the concept that reading and handwriting are closely linked (James, 2009; Levy et al., 2006; Richey, 2008; Vander Hart et al., 2010). Thus, it is of utmost importance that educators and therapists who work with those struggling to gain competency in their literacy skills not make assumptions. Ultimately, one should not assume that handwriting instruction is unnecessary or less valuable than reading and writing instruction (Medwell et al., 2009). As the studies have illustrated, even when handwriting is directly taught within short periods of time with little cost or added effort on the part of the teacher, it can lead to great gains in many aspects of academic achievement. Schools need to prepare students to be better hand writers. The emerging literature suggests that the contribution of handwriting to academic achievement and vocational success must be considered. It is therefore very clear from the above literature that handwriting has an impact on pupils' performance either positive or negative base on how it has been handle by teachers hence the need for this research in Ishadia E/A Primary School to enhance teachers competence in teaching handwriting through in-service training.



2.8 Training Model

2.8.1 Introduction

This training model is on enhancing teacher competence in teaching handwriting. Schools need qualified teachers for effective teaching. This form a crucial part of most schools striving to achieve their mission statement. The teachers responsible for the teaching and learning of handwriting must equally be accorded a very high priority. The nature of the teaching profession makes it practical and imperative for all teachers to have continuing career-long professional training so as to be equipped with special writing skills. This specific training need requires the ways in which they are carved out with difference according to circumstance, personal and current dispositions of the different teachers involved in acquiring the writing skills. Teachers should therefore be encouraged to participate in a wide range of informal and formal activities which will help them have better processes of review, renewal, enhancement of thinking and practice and more especially, being committed both in mind and heart so as to ensure effective teaching and learning of handwriting. Handwriting skills, like other aspects of the writing process, develop over time. With demonstration and opportunities for practice, and with application in meaningful contexts, handwriting movement patterns are established and reinforced, becoming automatic processes within the learner's control. This training model will help the teachers of Ishadia Primary School to enhance their capacity in teaching introduction and formation of letters in handwriting.



2.8.2 General Goals /Objectives of the Model

The general objective of the training model is to increase teachers' competence in planning for handwriting at the Ishadia E/A Primary School in the Karaga District.

2.8.3 Specific Objectives of the Model

1. To increase teachers skills in introducing letters in handwriting to students.
2. To teach formation of letter in handwriting.

2.8.4 Unit One: Introducing Letters

Brief

As the staff of the school has agreed to participants in this training on planning for handwriting, it is important that they get to know introducing letters to students be able to use it in class. This unit seeks to let participants get through the introduction of letters by taking into consideration the letter groupings.

Goals

Enable participants to have indebt knowledge on letter formation.

Objectives

By the end of the training session participant will be able to teach introducing letters in handwriting.



2.8.5 Materials needed

- Multimedia, marker board, markers, stationeries, overhead projector, computers, Flipchart.

2.8.6 Activity 1

Warm up exercise: facilitator will give pictures of TLMs of different kinds including pictures of introducing letters and ask participants to talk about them and separate the pictures with regard to what they can use them for as far as handwriting is concerned. Facilitator allows participants to continue to look at the pictures and suggest names and how they can help improve teaching of handwriting. Allow the participants to have enough interactions with the TLMs ask them whether they can improve some of these TLMs.

2.8.7 Handout. 1

Handwriting skills, like other aspects of the writing process, develop over time. With demonstration and opportunities for practice, and with application in meaningful contexts, handwriting movement patterns are established and reinforced, becoming ‘automatic’ processes within the learner’s control. Also according to Angela (2014) the best place to start handwriting is building up hand strength and to practice fine motor skills. Kids need to build up their hand strength through fine motor skills before actual writing.



Introducing letters

Introducing letters base on the hand and finger movement used to form letters is helpful for learners with poor fin motor skills. Introducing letters to learners involves putting them in group base on their basic movement.

- The anti-clockwise letters: a d g q c e s u y f.
- The ‘stick’ letters: l i t j
- The clockwise letters: m n r h p b.
- The diagonal letters: k v w x z.

These grouping are very useful for the revision of letter formation. If the similarities of movement are pointed out the learners are able to develop a mental picture awareness of the practice of letter writing.

2.8.8 Unit Two: Letter formation.

Brief

As the staff of the school has gone through introducing letters, there is the need for them to be taught how to teach their students letter formation.

Goals

Enable participants to have indebt knowledge of letter formation in handwriting.

Objectives

By the end of the training session participant will be able:

To teach formation of letter in handwriting



2.8.9 Activity 2

Warm up exercise: participants will be guided through finger warm -ups and shoulder warm- ups. Participants will be asked to brainstorm to come out with ways to assess their pupils' in handwriting.

2.8.10 Handout 2

Letter formation

Teaching correct letter formation involves providing learners with opportunity to talk about names and features of letters as well as sounds they represent. This increases letter recognition in texts and in environment. The formation of letters involves starting and finishing places, direction of movement and number of strokes per letter. These are important aspects if linking, fluency and speed are to develop with ease. An oval body shape is recommended with a 2 o'clock starting position for all anti-clockwise ovals. size, slope, spacing, alignment, cursive style, linking, pen lifts, speed of handwriting, explicit teaching, lesson focus, explanation, demonstration, practice, whole-class modeled and shared writing. (South Australian, 2006).



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter provides a description of the research design in the study, profile of the study area, population and sampling procedure, data collection and analysis to answer research questions, situational analysis (pre-intervention), intervention, post intervention, data analysis and presentation as well as data quality and ethical issues.

3.1 Profile of the Study Area

The study was carried out at Ishadia E/A Primary School in the Karaga District. The School was established in 1995 as an Arabic School. The introduction of formal education in the School occurred in September, 1999. The population of the School at the time of establishment was less than fifty (50), but as day's passes up till the time of the introduction of Western education, the population rose to two hundred and seventy-three (273) pupils. Currently the school has a population of about six hundred and eighty-nine (689), twelve teachers and five Arabic instructors. Karaga District according to the 2010 Population and Housing Census is one of the twenty-six administrative districts in the Northern Region of Ghana. It was carved out of the then Gushegu-Karaga district and officially inaugurated in August, 2004. The district was created by LI 1787. The population of Karaga District is 77,706 representing 3.1 percent of the region's total population. Those who can read and write in English Language only constitute about 22 percent of the district's population. Females in the district are more likely to be literates twenty-four point six percent (24.6%) than males nineteen point nine (19.9). Aged three



(3) years and above of the population in the district, a high proportion (65.7%) has never attended school, twenty-eight point five percent (28.5%) are currently attending and five point eight percent(5.8%) have attended in the past.

3.2 Research Design

Action research was used to improve upon teachers' competences in teaching handwriting in Ishadia E/A Primary School in the Karaga district. Action research is a type of research aimed at solving immediate and local problems. Teachers use this research to solve classroom and school problems using scientific approach of problem identification, data collection analysis and conclusion. Action research is essentially an on the spot procedure design to deal with a concrete problem located in an immediate situation (Cohen, Manion and Morrison 2008). This means that action research involves finding a workable solution to the problem that we identify in our work place or situation. Also action research can be seen as activity research which the researcher works collaboratively with other people to solve. It helps the teacher to know what really goes on in teaching and learning, also it enables the teacher to improve on his or her professional status and personal development as well. However despite the significant of action research, it has some weakness; one cannot use conventional format to write it up effectively. It also lacks the rigor of true scientific research in spite of this shortcoming the design is appropriate for this study.

Again, this study used a qualitative research design. The general objective was to enhance teacher competencies in effectively teaching handwriting at the Ishadia E/A Primary School in the Karaga District. According to Humphrey (2014), citing (Bailey, Hennink and Hutter, 2011, p. 9)'qualitative research is an approach that allows you to



examine peoples' experience in detail by using a specific set of research methods such as in-depth interviews, focus group discussion, observation, content analysis, visual methods, and life histories or biographies'. Qualitative research has the benefit of providing rich data on real life situations, especially on those concerning people. Moreover, qualitative approach allows research to be conducted in a natural setting and involves a process of building a complex and holistic picture of the situation of interest (Nicholas, 2006). The natural setting in this case was a classroom where the teaching process occurred.

3.3 Population of the study.

Research population is researcher's target group that is the group the researcher wants to investigate into so as to gain information and draw conclusion from. Population is an aggregate or totality of all the objects, subjects or members that conform to a set of specifications (Polit and Hungler 1999:37). For the purpose of this study the target population is teachers and students of Ishadia E/A Primary School in the Karaga district.

3.4 Sample and Sampling techniques.

The sample for the study is made up of twelve (12) teachers, five (5) students from each level of Ishadia E/A Primary School. Purposive sampling was used in selecting both the teachers and the students. Purposive sampling was use to select the teachers because all teachers in the school are expected to teach English language skills including handwriting. Purposive sampling method was again used to select the students because the researcher wanted a section of them to be interviewed to see if their teachers have been teaching them introduction and formation of letters in handwriting regularly and



how they teach them. Since the teachers teach at the Primary School and the students are also in the School, they constitute the ideal sample for the study. In purposive sampling the researcher handpick the cases to be included in the study on the basis of their judgment of their typicality or possession of the particular characteristics being sought (Cohen, et al., 2008). In this way they build up a sample that is satisfactory to their specific needs. Sampling is a process of selecting just a small group of people as representatives from a large group called the population (Nicholas, 2006).

The sample size of the study is twelve (12) teachers three (3) of them are females and the rest of the number are males. Also, a total of sixty (60) students were chosen; twenty-four (24) of them were boys and thirty-six (36) were girls.

3.5 Data Collection Instruments

3.5.1 Interview

Interview guide was designed to engage the respondents in some sort of dialogue so that they would be able to express themselves beyond Yes or No responses. Schedules for the interview were devised, comprising semi-structured items. This approach allowed interesting responses to be followed up immediately. According to Lynas, (2001), in semi-structured interview, only broad areas are identified and questions asked on them. Furthermore, Lynas contends that the researcher has the option to probe further and the act of probing ensures that issues that are misunderstood are cleared up and rapport is achieved and cooperation encouraged. The semi-structured interview were conducted with each one lasted for about twenty to thirty minutes and was recorded using a Philips Dynamax2 hi-fi recorder.



In general, the two instruments (interviews and observation) were used and considered appropriate for the study because the nature of this study lends itself to interviews and observation. Borg, Gall, and Gall, (1993) agree that some research typically employs the observation and interview to determine the opinion, attitude, preferences and perception of persons of interest to the study. Since the researcher was interested in exploring some strategies, it was appropriate to use these instruments.

3.5.2 Semi-structured interview

The semi-structured and open-ended interview was the main data collection tool. As Bateson (2009) notes, the use of interviews is the best technique when conducting intensive case studies of a few selected individuals. This method was chosen for finding out what were the concerns of teachers with regard to teaching handwriting. The interviews allow the research to obtain the perspectives of teachers on how they teach handwriting in the school. Again, interview is a verbal conversation between two people with the objective of collecting relevant information for the purpose of research (Bailey, et al 2011). It allows respondents to speak out their opinions, feelings, beliefs, insights, attitudes and experiences about a problem in question through the use of probing questions. The purpose of the interviews was to obtain description of the lived world of the interviewees with respect to the interpretations of the meaning of the described problem (Kvale, 2009). With semi-structured interview method; it was possible to ask follow-up questions in order to get richer information. The participants were available to clarify immediate concerns and unclear statements. Also through the establishment of trust and rapport with the participants, a researcher is likely to get more information by using semi-structure interview compared to other methods of data collection. Therefore



interactions were made possible before the interview session to build trust and rapport with the informants. An interview was carried out with every teacher selected to participate in the study. Time was allocated for every participant to be interviewed. The interview sessions took place in the morning before the students came to school and during breaks. The interview questions were formulated on the basis of the main research questions. One of the disadvantages of the interview method is that if it is a large number of participants it can be time consuming (Ary, Jacobs & Sorensen, 2010).

3.5.3 Observation

Observation was used as a support method to the interview with the aim of gaining clarity or understanding of the problems in detail. The act of observation may sound simple but in reality it involves multiple tasks of work to be done during data collection. Therefore it can be defined in the following ways: Observation is a research method that enables researches to systematically observe and record people's behaviour, actions and interactions. The method also allows researchers to obtain a detailed description of social settings or events in order to situate people's behaviour within their own socio-cultural context (Bailey et al 2011, p.170).With observation, the observer looks at people in their natural settings (Holloway, 1997). Observation is a first-hand experience, the observer records information as it is revealed. Some characteristic aspects can be noticed during observation that might be useful in exploring the topics. Observation also provides important additional source of data for verifying, clarifying and expanding the information obtained by other methods such as interviews (Bailey, et al, 2011).One of the limitations of observation is that participants might act differently knowing that they are being observed, thus this could lead to a lack of important information needed as



respondents act differently with the observer around (Creswell, 2003). This study used a non-participant observation-approach, which refers to conducting an observation without participating in the activities that you are observing (Leavy and Biber, 2011).

3.6 Data Collection Procedure

Four weeks were used to collect the data; two days within each of the weeks were used for the project. In all eight working days were used for collecting the data. Two weeks for the pre-intervention, one week for the intervention and the last one week for post intervention, within this time interviews were conducted.

3.6.1 Data collection procedure for interview

Interviews were conducted on one-on-one basis. Interviews were recorded using a Philips Dynamax2 hi-fi recorder. Each session lasted about twenty (20) to thirty (30) minutes. Before interviewing them, their consent was sought and the purpose of the research explained to them. Permission was also sought regarding the use of a recorder to record the interviews. In all cases the respondents agreed. The main procedure was through the use of tape recorder. Fetterman (1998) cited in (Avoke, 2003), stated that tape recorders allow the researcher to engage in lengthy informal and semi structured interview. And can also effectively capture long verbatim quotations essential to the fieldwork, while maintaining a natural conversational flow. Finally, confidentiality was assured throughout the interview.



3.6.2 Situational Analysis (Pre-intervention) First and Second Week

The researcher observed the various processes used by teachers in teaching before the intervention was carried out. The researcher used interview and observed how the pupils made to be involved in the teaching and learning of handwriting. There was also interview for teachers to diagnose their weaknesses so that a foundation could be laid for the resolution of the problem being investigated. The first day on arrival at the school the researcher asked for permission from the teachers because the researcher happens to be the head teacher. The researcher sought the consent of the respondents to enable him carry out the study through issuing an authority letter from University for Development Studies Faculty of Education outlining the purpose of the study. In the first visit teachers were informed about the impending interview and the rationale behind it. They were made to be aware of the intent of the exercise that it was not to penalise teachers by revealing their privacy and that they were assured confidentiality in whatever they were going to do. The researcher used the first two days to observe the way they teach their writing and for that matter handwriting lessons. The number of times they have English language and writing in a week and pupils participation level. Teachers were also interview to learn the different practice of how they teach handwriting.

On the second week first day researcher moves from class to class to observe their English lessons on handwriting, pupils participation and the kind of teaching and learning materials used in teaching and learning. The researcher interviews a section of the pupils to see if their teachers have been teaching them how to write properly. The next day the researcher interview teachers to learn the different practices of teaching handwriting.



Questions teachers were asked to answer includes:

- English language is on four skills, please name them?
- What skills do you have in teaching handwriting?
- How do you teach your pupils handwriting?
- Have you ever receive any training on how to teach handwriting?
- Do you have teaching and learning materials on handwriting in the school?

The essence of this pre-intervention was to inform the researcher the difficulties the teachers face when it comes to teaching and learning of handwriting.

3.6.3 Intervention Third Week Day Five and Six.

At this stage, series of strategies were put in place to solve the emerging problem relative to in-service training for schools. After the problem had been identified, the researcher developed some strategies to solve the problem. The researcher engaged the teachers on discussion concerning their challenges during in-service training. This was meant to eliminate any false impression about teaching of handwriting. At this stage the researcher with the help of English teachers and the Circuit Supervisor organise INSET for the teachers to improve the capacity in teaching handwriting and also to improve their teaching methodologies and ways of using teaching and learning materials (TLMs) in handwriting.



3.6.4 Post Intervention Forth Week Day Seven and Eight

In the post intervention stage the researcher observe lessons delivers by teachers to ascertain the effects of the INSET on the teaching methods of handwriting as well as their competence in handling writing lessons. This was done for one week where two days were used in the observation.

3.7 Validity and Reliability

3.7.1 Pilot Study

The pilot testing of the instrument was conducted at Karaga D/A Primary School in the Northern Region of Ghana. The purpose of pilot testing was to discover possible weakness, inadequacies, ambiguities and problem in the instrument. The school used for pilot testing of the instrument and the sample were considered appropriate because they have the same characteristics with study schools and sample (respondents were teachers of the school in the same District). Ten (10) respondents were involved in the pilot study. To determine the validity of the items, both interview and observation guide was given to experts for their inputs. Their assertion of its appropriateness guided the researcher in the review of the items.

Best and Khan (1993) contends that content validity is normally assessed by experts who judge its adequacy. Creswell (1994), states that researchers have no single stance or consensus on addressing traditional topics such as validity and reliability. As a result, another strategy the researcher used to ensure validity of the instrument was the performance of pilot test. According to Wilson and MacLean (1994), piloting is able to help in establishing the reliability, validity and practicability of the instrument because it



helps to check the clarity of the questions, give feedback on validity of test items and also makes sure that the data required will answer the research questions. The researcher as part of the pilot-testing, asked the respondents to comment and recommend suggestions to improve the instrument. Some very useful and valuable suggestions emerged from the pre-testing. These views were collated and studied closely and helped the researcher to remove ambiguous statement; some statements were completely deleted either because of similarity or non-relevance. Recorded interviews were played back for approval and correction, this was later transcribed and copies given to respondents for further checking and approval. All the necessary corrections and changes were effected to ensured credibility, trustworthiness and clarity.

3.8 Data Analysis and Presentation

This aspect of the study involved handling the data obtained from the varied respondents in the field. Data analysis is the practice of extracting useful information from raw data. Data analysis is the process of organising the data collected for example into categories (Kothari, 2008). The study adopted the use of interview where the researcher interviewed the respondents. Responses to the interview questions were analysed for accuracy consistency and relevant to the study. The researcher then used SPSS data matrix for the purposes of clarifying the responses. This was done by using the SPSS to construct tables to enhance further illustration of the data. The researcher also used observation method to collect data. Teachers were observed teaching pupils in the classroom to enable the researcher to ascertain the practical application of in-service training for improving teacher competence in teaching handwriting. In this process



pictures were also captured to further illustrate and clarify how the in-service training was done to enable teachers to teach handwriting effectively.

3.8.1 Data Quality and Ethical Issues

Quality assurance measures were used to ensure that, the findings were accurate. In view of this, ethical issues were identified and appropriately dealt with. Ethical consideration is part of the research works, and cannot be avoided (Bryman, 2004). The principal areas of ethical issues that the researchers considered are the privacy rights, the impact of psychological harm, deception and confidentiality. Before and during the data processing, the information was cross checked again to ensure completeness and internal consistency. Where some inconsistencies existed in the data due to mistakes made by the researcher, it was possible to cross check the interviewers for clarification and to have the right information and if the inconsistency was much less of recording or a mistake from the interviewer, clarification was sought from the respondent. When it was impossible to correct information that is clearly inconsistent, an exclusion of that portion of the data from further processing and analysis was considered. According to Punch (2000) as cited in Josephine (2012) asserts, “all social research involves consent, access and associated ethical issues, since it is based on data from people about people (teachers about learners with reading and writing problem in an ordinary classroom).



3.8.2 Privacy Rights

As fundamental ethical issues' respondents right to privacy was greatly respected. Given the very nature of perception of teacher in In-service training problem, invasion of privacy at one level or another are a matter of natural course. As an attempt to fulfill an important aspect of the respondents privacy right, the researcher furnished the respondents with enough information concerning the research problem so as to enable respondents participate or otherwise in the data collection process.

3.8.3 The Potential for Psychological Harm

The researcher was also sensitive to any possibility of harming the respondents psychologically, since the simple recollection of past experience concerning the in-service training programme; some teachers may suffer certain emotional discomfort and psychological pain. The researcher guided by the principle that, respondents who agree to participate in the research do so willingly and can terminate participation at any time. As a result of this, the researcher really operated in an open and liberal way so that this does not cause any potential psychological harm to the respondents in this study.

3.8.4 Deception

The need for deception in certain researches might be legitimate since revealing the purpose of the research could create biases or prevent scientific investigation. This may be so, but considering the nature and the essence of in-service training programme, the researcher in his own discretion did everything possible to ensure that, respondents were not deceived, and anything they needed to be abreast with the underlying principle of this study was disclosed and clearly explained out for all the respondents.



3.8.5 Confidentiality

The practice of collecting data about teachers on their effort towards attending in-service training programme and how they teach certain topics raises the issue of confidentiality. As a result of this, the researchers assured respondents of confidentiality. They were assured that the researcher will not report or discuss any confidential information obtained from them without their permission. Again, they were guaranteed that their names and any traces that could lead to revealing their identities would be made anonymous.



CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the results and discusses the findings of the study in relation to the literature review. The result is presented according to the research questions the findings also provide basis for appropriate conclusion.

4.1 Demographic Characteristics of Respondents

Table 1 discusses demographic characteristics of respondents. The table focuses on the age, sex, academic qualification, and year of teaching experience.

Table 4.1: Demographic Characteristics of Respondents

Variable	Frequency	Percentage
Sex:		
Male	9	75
Female	3	25
Age:		
21-30	3	25
31-40	8	67
41-50	1	8
Qualification:		
Certificate A	0	0
Diploma	9	75
Degree:	3	25
Working experiences:		
1-5 years	3	25
6-10 years	6	50
11-15 years	3	25
16 and above	0	0
Total	12	100

N = 12

Source: Field Data, 2017



4.1.1 Sex of Respondents

The table shows that there are more males seventy-five percent (75%) than females twenty-five percent (25%) respondents in the study. This means that majority of the respondent are independent and can be available at all times to teach.

4.1.2 Age of Respondents

The analyses of the table revealed that majority sixty-seven percent (67%) of the respondents were in the age 31- 40. Three (3) respondents representing twenty-five percent (25%) age 21- 30, and one (1) respondent representing eight percent (8%) age between 41- 50. This is the real situation at Ishadia E/A Primary School in the Karaga District. The staff is mature in terms of age. The staff is also in their youthful age therefore, they have the strength to teach and assist the pupils to learn.

4.1.3 Qualification of Respondents

The table shows that no teacher in the school has cert A. Nine (9) teachers representing seventy-five percent (75%) of the teachers have diploma the remaining three (3) teachers representing twenty-five percent (25%) are bachelor degree holders in education. This statistics shows that every teacher in the school is a professional teacher. Meanwhile the researcher enquiries also revealed that almost every diploma holder in the school is under taking degree in bachelor of education either distances or sandwich program with the sole aim of upgrading themselves and to acquire better qualifications



4.1.4 Working Experience of Respondents

The experience level of respondents ranged from one (1) to fifteen (15) years. This statistics is shown in Table 4.1 the data revealed that majority of the respondents has over five years teaching experience with twenty-five percent (25%) each of the respondents having teaching experience ranging from one (1) to five (5) years. By this it means that about seventy-five percent (75%) of the respondents have more than five (5) years teaching experience. With the varied experience these teachers could be relied on multiple cases for teaching pupils based on experiential approaches. In the same regard, the previous experience of the teachers could enable them draw comparisons with previous cases in teaching pupils to improve their handwriting.

Research question 1: What difficulties do teachers face in teaching introduction and formation of letters in handwriting?

To answer this research question a situational analysis was conducted to explore the ways school based in-service training can enhance teacher competence in planning handwriting.

4.2 Pre - Intervention

A combination of observation and interview with teachers in the school was employed to ascertain the difficulties teachers face in teaching handwriting. In all twelve teachers were observed and interviewed to confirm the identified problem. During the interview analysis the following difficulties facing teachers in teaching of handwriting were mentioned:



- a. Inadequate teaching and learning materials for the teaching of handwriting.
- b. Inadequate activities for pupils and teachers.
- c. Poor teaching skills in handwriting.
- d. Broadness of English language as a subject.
- e. Large class size.
- f. Inadequate stationery for pupils.
- g. Some letters /numbers by their nature are very difficult to writing.
- h. Inadequate English language period in the time table.
- i. No proper sitting in the class due to lack of furniture.
- j. Teaching your pupils handwriting is time consuming.

Teaching of English language in the primary schools is compulsory. Also teaching of the four language skills is mandatory on every teacher in the classroom. According to Tsadidey (2002:2) English is the official language, also it is the language of education starting as a subject on the time table for the first three years of formal education and there after become the medium of instruction. This policy has changed since 2002 making English the medium of instructions at all levels of formal education in Ghana. The policy of GES is very clear on the teaching of English language. However, there has not been a corresponding resource material in the school to effectively teach all aspect of the subject. For instance the teachers of Ishadia Primary School are expected to provide instruction in teaching of handwriting however the school lacks basic resources for teaching and learning of handwriting. The school has no materials on teaching of handwriting. Teachers relied on their personal efforts and only on the English text books for the purpose of instructions of lessons. This problem has further compounded by



teachers' lack of knowledge in teaching and learning of handwriting. This suggests that teacher's competency is important in teaching and learning of handwriting. The study also revealed that 35 minutes allocated per lesson in English language is not enough for effective teaching of the subject. In all the lessons observed the researcher realised that teachers were not able to fully develop their concepts/ topics before close of the period.

Research question 2: What are the effects of teachers' not teaching introduction and formation of letters in handwriting on students' performance?

Through interview with teachers the researcher also ascertains that teachers' inability to teach handwriting has effects on the academic performance of the pupils. The identified effects are as follow:

- a. Pupils with poor handwriting feel shy to show their writings to friends
- b. Pupils with poor handwriting get low marks in exams in every subject
- c. It is always difficult for someone to read their writing
- d. Pupils with poor handwriting are timid in class
- e. Poor handwriting brings about dropout in schools
- f. It brings about academic poor performance.



Research question 3: What are the strategies that could be used by teachers to teach introduction and formation of letters in handwriting?

4.3 Interventions – solutions to the identified problems of the English language teachers

Having identified the challenges /difficulties teachers face in teaching handwriting in Ishadia E/A Primary School, the researcher decided to put in an intervention by organising two (2) days school based in-service training for the teachers in order to enhance their competence in teaching handwriting in the school. The processes and the procedures of the training are presented in figure 2, 3, 4 and 5.





Figure 2: Teaching and Learning Materials on Handwriting

Source: Author's captured, 2017

Figure 2 showed some of the TLMs the participants will interact with to be able to go through the activities of the training. Participants will be asked to talk about these TLMs with regard to specific function some of them can do as far as teaching of handwriting is concerned. They will be asked how these TLMs can be improvised. For instance, the 'letter tree' is used to teach identification and names of letters (English alphabets). The manila cards are many they have illustrations of a game called the 'snake game,' matching and tracing which are used to teach alphabets arrangement, matching of capital letters to small letters, tracing the line to form vertical lines, horizontal lines, backward circle lines, slant lines, forward circle lines, as well as tracing and writing letters respectively.





Figure 3: A photo of resource person taking teachers through introduction and formation of letters.

Source: Author's captured, 2017

Figure 3 showed resource person taking the participants through introducing and formation of letters for them to familiarise themselves with these skills. Some of the activities he took them through were names and sounds of letters how to write anti-clockwise letters; stick' letters, clockwise letters and so on. Participants were also drilled through letter formation. The knowledge and skills the resource person imparted on the participants would go a long way to add to their existing experiences, this would enhance their ability to help pupils in improving their handwriting.





Figure 4: A photo of the researcher doing recap.

Source: Author's captured, 2017.

The researcher at stage is taking the participants through a recap of what they have learnt so far during the training sessions. This activity will enable the researcher to evaluate the training to ascertain success of what have been learnt so far in the training program. This will also enable him do some corrections where he thinks something is wrong. Similarly the researcher is encouraging the participants (teachers) to often seek feedback from their pupils to ascertain their understanding during lessons. It would help the researcher to give accurate judgment on the progress of the training.





Figure 5: a training session led by resource person

Source: Author's captured, 2017.

Haven told the participants what they are going to do, the resource person then took the participants through a training session to enhance their capacity of teaching introducing letters in handwriting. The resource person took them through the content by using instructions, modeling, coaching and supporting guiding through group work.

Day 1

An English teacher was sought as a resource person to take the teachers through the in-service training. The content of the training basically centered on:

- a. The anti-clockwise letters: a d g q c e s u y f.
- b. The 'stick' letters: l i t j
- c. The clockwise letters: m n r h p b.
- d. The diagonal letters: k v w x z.



Day 2

The session of the second day begun with an open prayer and the researcher took participants through revision of what was discussed yesterday. After the prayer and the revision the facilitator (resource person) continue the program of the day and the focus areas as far as letter formation is concerned were:

- a. Size
- b. Slope
- c. Spacing
- d. Alignment
- e. Cursive Type
- f. Pen Lifts
- g. Speed of Handwriting

The organisation of in-service training for teachers to correct their deficiencies in teaching skills and methodology is in line with; Guskey & Sparks, (2012) that in-service training is to prepare teachers to cope with curriculum change, pedagogical skills, and to provide them with the knowledge and skills to improve teaching and learning in the classroom. The purpose of in-service training therefore is to help in the professional development of teachers. Also, Nadia (2010) argued that, in-service training prepares teachers to cope with curriculum modifications, to train them in new teaching and learning technique, and to provide teachers with the requisite knowledge and skills to teach new and more innovative learning techniques.



Research question 4: How would school based in-service training enhance teacher competence in teaching introduction and formation of letters?

Through observation and in-depth interview with teachers of the school it was revealed that school based in-service training could enhance teacher competence in teaching handwriting in the school. They said that through frequent in-service training they will be able to:

- a. Identify and improvise the appropriate teaching and learning materials for teaching of handwriting.
- b. Acquire new methods of teaching handwriting.
- c. Gain knowledge to easily identify and assist pupils with handwriting problem.
- d. Enable them to also assess the pupils handwriting thus teacher will acquire methods of assessing their pupils handwriting.
- e. Accept pupils' weakness and help them to overcome those challenges.
- f. Place them on the right method of addressing their problems.
- g. Generally build teacher knowledge on wide areas as far as teaching is concerned
- h. It also assist teacher to act as professional on their line of duty.
- i. It gives teacher confidence on their job.

Finally through school base in-service training teachers get to update their knowledge on the teaching methods, hence training can improve teacher competence in teaching handwriting. According to Egonmwan (2008), in-service training basically upgrades the knowledge and skills of teachers and the modeling and reorientation of their attitude, so that they can be more effective, efficient and productive in the performance of their



teaching job. Again, Becker and Huselid, (2009), view in-service training as an ongoing education of teachers, leading to the improvement of their professional competence

4.4 Post - intervention

Post intervention is very important aspect of action research work. This aspect assesses the effects of the intervention. In this study, the researcher employed post intervention lessons observation to ascertain effects of training given to participants on their competence in teaching handwriting. A total of twelve teachers (1 per each teacher) lesson were observed this process last for 2 days. Analysis of the post intervention revealed that the intervention made was good. The observation revealed that teachers' competence in teaching handwriting has increase. It was clearly seen in teachers' lesson delivery /presentation. Teachers had improved on improvisation of teaching and learning materials to teach handwriting. They also use assessment technique to assess their pupils writing. The purpose of in-service training is to enable teachers to acquire new understanding and instructional skills. Teachers who were not able to detect pupils with handwriting difficulties can now do so.

Also, the teachers' application of good teaching methodologies for the instruction of handwriting had improved. Teachers had shifted from the traditional lecture approach to practical oriented teaching approach. Most of the teachers were now employing cooperate learning method, team teaching, brainstorming and other practical learning methods. The improvement in the abilities of the teachers after the training corroborates with the finding of several theorists including. Cohen and Hill (2010) defined in-service training



as a learning process that involves the acquisition of skills, concepts, rules or attitudes to enhance the performance of employees.

4.5 Challenges Hindering the Effective Implementation of Programmes.

This section discusses the challenges hindering the effective implementation of programmes, by extension these challenges also apply in organising in-service training for teachers of Ishadia E/A Primary School on improving their competence in teaching introduction and formation of letters in handwriting. Some of the problems militated against effective implementation of the in-service training were:

1. Finance was a challenge, funds were not enough to organise the training and the training programme was costly making it difficult for the researcher to organise.
2. Resource materials, even though the researcher bought and improved some of the materials for the training there was still not enough materials to carry out the training programme hence resource materials were a challenge in implementing the training programme.
3. Phone calls during the training session was a challenge militating against the success of the training, though there were rules set by participants on how the training will carry out but participants making and receiving calls was a challenge to the implantation of the programme.

The most pressing challenges that were identified by the researcher were lack of money, inadequate resource materials for the training and frequent phone calls on the part of participants.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This is the last chapter of the research work; it is comprised of Summary conclusion and recommendation. The main purpose of the study was using school based in-service training to enhance teacher competence in teaching handwriting in Ishadia E/A Primary School in the Karaga District. Specifically the study sought to find out the difficulties teachers face in teaching introduction and formation of letters in handwriting, effects of teachers not teaching introduction and formation of letters in handwriting on pupils performance, the strategies to use to overcome the problems and how would school based in-service training enhance teacher competence in teaching introduction and formation of letters in handwriting. The researcher design employed twelve teachers and the main instruments for the study were interview and observation.

5.1 Summary

From the analysis made the following finding were emerged:

1. Most of the respondents were males representing seventy-five percent (75%). Also, sixty-seven percent (67%) of the respondent age between thirty-one to forty (31-40) years. Again seventy-five percent (75%) and twenty-five percent (25%) of the respondents had diploma certificates and bachelor's degree respectively, indicating a high staff qualification rate. In terms of number of years teaching



experience seventy-five percent (75%) of the respondents had taught more than five (5) years.

2. The study also revealed that the challenges facing teachers in teaching introduction and formation of letters in handwriting is lack of teaching and learning materials, poor teacher knowledge in teaching handwriting, large class size, inadequate stationery for pupils, English language as a subject is too broad. Poor sitting due to lack of furniture.
3. A post intervention analysis after the ins-service training revealed that teachers competence in teaching introduction and formation of letters in handwriting had improve. Majority of the teachers were now improvising teaching and learning materials to teach handwriting.
4. Teachers now used variety of teaching methodologies in teaching handwriting, most of them now employ cooperative learning discussion, brainstorming. Others also employ audio-visuals aid by using Discovery Learning Alliance (DLA) study center materials. Sometimes too they call other colleagues or expect to assist in parts of their lesson delivery.
5. Again identifying and improvising teaching and learning materials for teaching handwriting, acquiring new methods of teaching handwriting, knowledge of easily identifying pupils with handwriting problems as well as right way of assessing pupils' handwriting.



5.2 Conclusion

This research aims at improving teachers' competence in teaching handwriting in Ishadia E/A Primary School in the Karaga District. Specifically the study determine the factors hindering the abilities of teachers in teaching introduction and formation of letters in handwriting, determine the effects of teacher not teaching introduction and formation of letters in handwriting its impact on pupils performance and the difficulties in teaching handwriting. Inadequate teaching and learning materials for the teaching of handwriting, inadequate activities on handwriting for pupils and teachers, poor teaching skills of handwriting by teachers, broadness of English language as a subject, large class size, inadequate stationery for teachers, Some letters /numbers by their nature are very difficult to writing, inadequate English language period and finally no proper sitting arrangement in the class due to lack of furniture were identified as some the difficulties teachers face in teaching handwriting.

The research concluded that appropriate in-service training for teachers of English language can help increase their competence in applying right teaching methods for the teaching of handwriting.

5.3 Recommendation

Base on the findings of the research work the following recommendation were made.

1. Stake holders of education in the district should endeavor to provide appropriate teaching materials for handwriting. Again, reward teachers who teach handwriting with teaching and learning materials.



2. School based in-service training should be intensified by Ghana education service; they should encourage head teachers to carry out school based in-service training in their schools.
3. The leadership of Ishadia E/A Primary School with the help of district education office should increase time allocation to the teaching of English language.
4. The government should seek collaboration with the donor community to increase funding of school based in-service training for English language.
5. Further research should be conducted using a qualitative approach to determine the effects of In-service Education Training (INSET) for English language on the academic performance of pupils. This could justify the investment that stakeholders have to make in improving the teaching of English language in the primary schools.



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APPENDIX A

INTERVIEW GUIDE

- 1 Sex: a. male [] b. female []
- 2 Age:
- 3 Educational level: a. Diploma [] b. HND [] c. Degree [] d. Masters []
- 4 How long have you been teaching:
- 5 Please what are the subjects you teach as a classroom teacher?.....
- 6 Do you prepare lesson notes on them? a. Yes [] b. No []
- 7 Do you prepare lesson notes on the four English language skills? a. Yes [] b. No []
- 8 Do you perceive your pupils to be doing well in handwriting? a. Yes [] b. No []
- 9 If No why, give at least two reasons.....
- 10 How will you respond to the suggestion that school based in-service training improves your confidence in teaching? a. strongly agree [] b. agree [] c. disagree [] d. strongly disagree [] e. undecided []
- 11 How would it improve your confident in teaching handwriting?.....
- 12 How often do you receive school based in-service training a. monthly [] b. term [] yearly []
- 13 Do you normally face any challenge/difficulties in teaching your pupils how to write? a. Yes [] b. No []



- 14 If Yes for question 15, please give at least one of the challenges/difficulties you face.....
.....
- 15 Do you agree with the suggestion that teachers' inability to teach pupils how to write well has an effect on their academic performance? a. Yes [] b. No []
- 16 If Yes for question 17, please give at least one of the effects.....
.....
- 17 Please give two or more strategies /solutions that could be used to overcome/solve teachers inability to teach their pupils how to write
- 18 What kind of support from teachers do pupils with handwriting problems need?
- 19 What do you do to encourage all pupils to work together in class and for those with handwriting problems?
- 20 What do you do to help all pupils engage in the classroom activities?
- 21 What do you do to help a pupil with handwriting problems to work with the same activities as the others in the class?
- 22 What kind of methods do you use in teaching pupils handwriting problems to improve their academic achievement?
- 23 What kind of materials do you use when teaching these pupils in the classroom?
- 24 What kind of support do teachers need to help these pupils in the classroom?



APPENDIX C

CONSENT FORM

Educational Foundation Studies

University for Development Studies

P O Box 1883

Tamale Northern Region Ghana

Dear Students,

My name is Sayibu Ibrahim a Masters Degree student in the Department of Educational Foundation Studies at the University for Development Studies; I am conducting a research work on “using school based in-service training to enhance teacher competence in teaching handwriting in Ishadia E/A Primary School in The Karaga District”. Your school and class have been selected to participate in the study. I am therefore contacting you for your participation in this study. If you choose to participate, I will be prepared to share the findings with you after completion of the study. Your identity will be kept confidential. Your individual names will NOT be associated with the research findings in anyway. Only your researchers will know your identity. Data collected from you will be treated strictly confidential and will not be shared with any other participants and individual outside of this study. There are no known risk and/or discomforts associated with this study. The expected benefits associated with your participation are the information about your knowledge level. If this study is later submitted and accepted for publication, a by- line will indicate the participation of all students in your class.



www.udsspace.uds.edu.gh

Enclosed you will find an “**INFORMATION CONSENT FORM**” which asks your permission to participate in this study. If you choose to participate in this study, kindly sign and submit it to your class teacher. I hope you will choose to participate in this study.

Thank you for your cooperation

Sincerely,

Sayibu Ibrahim (Dip/B. Ed in Basic Education)

UNIVERSITY FOR DEVELOPMENT STUDIES



APPENDIX D

INTRODUCTORY LETTER

UNIVERSITY FOR DEVELOPMENT STUDIES

Faculty of Education

Department of Educational Foundations

Tamale Campus



**THE HEADTEACHER
ISHADIA E/A PRIMARY SCHOOL
KARAGA DISTRICT
KARAGA**

Dear Sir/Madam

LETTER OF INTRODUCTION- MR. SAYIBU IBRAHIM

We write to introduce the above named student of our institution who is doing research on “**Using School-Based In- Service Training to Enhance Teachers’ Competence in Teaching Hand Writing in Ishadia E/A Primary School in the Karaga District**” in partial fulfilment of the requirement for his degree.

The office would be most grateful for all support and courtesies extended to him in this endeavour.

Information so obtained shall be used solely for academic purposes.

Thanks in advance for your support

Sincerely,

Rev. Fr. Dr Thomas Asante

(Coordinator)

**Coord of Graduate Programs
Faculty of Education
U D S
P. O. Box 1350
Tamale, Ghana**



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