UNIVERSITY FOR DEVELOPMENT STUDIES, GHANA

IMPROVING THE PROJECT SKILLS OF ZANTELI JHS AND PRIMARY SCHOOL TEACHERS ON SCHOOL BASED ASSESSMENT (SBA) IN THE GUSHEGU DISTRICT

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BY

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THESIS SUBMITTED TO THE DEPARTMENT OF EDUCATIONAL FOUNDATIONS STUDIES, FACULTY OF EDUCATION, UNIVERSITY FOR DEVELOPMENT STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF EDUCATION DEGREE IN TRAINING AND DEVELOPMENT

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DECLARATION

Candidate's Declaration

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

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Supervisor's Declaration

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

Supervisor's Name: DR. HAJIA ALIMATU CECILIA ISSAKA

Signature: ……. Date: ……

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DEDICATION

This study is dedicated to my wife and children, the entire family and friends who contributed in diverse ways in my education.

TABLE OF CONTENTS

DECLARATION ii
ACKNOWLEDGMENT iii
DEDICATION iv
LIST OF TABLES viii
LIST OF FIGURES ix
ABSTRACT x
CHAPTER ONE 1
1.0 INTRODUCTION 1
1.1Background of the Study 1
1.2 Perceived Problem 4
1.3 Diagnosis of the Problem 4
1.4 Statement of the Problem 5
1.5 The Purpose of the Study 7
1.6 Objectives of the Study 7
1.7 Research Questions 8
1.8 The Significance of the Study 8
1.9 Limitation of the Study 9
CHAPTER TWO: LITERATURE REVIEW 10
2.0 INTRODUCTION 10
2.1 Meaning of School Based Assessment 10
2.2 Importance of School Based Assessment 13
2.3 Challenges of School Based Assessment 16
2.3.1 Lack of Skills by Teachers 16
2.3.2 Lack of Trust for Teachers 18
2.3.3 Lack of Human Resource as Hindrance to School Based Assessment 19
2.3.4 Environment as a Hindrance to School Based Assessment 19
2.3.5 Materials as a Hindrance to SBA 20
2.4 Challenges that ConfrontTeachers in Project Based Assessment 22
2.4.1 Challenges of Project Skills Assessment 23
2.5 Requisite Skills needed by Teachers in Conducting School Based Assessment 25
2.5.1 EssentialSkills of PBL 27
2.5.2 Lauren Ayer Four Skills of Project Based Learning 30

2.6 Theoretical Framework 36
2.6.1 Origins of School-Based Assessment 36
2.6.2 Influences on School Based Assessment 37
2.6.3Contributions to School Based Assessment 38
2.7.1 Project (School) Based Assessments (SBA) 40
2.7.2 Performance Assessment 40
2.7.3 Objective Assessment 40
2.7.4 Summative Assessment 40
2.8Conceptual Framework 41
2.8.1 Model for Skill-BasedAssessment 42
2.8.2 Scoring School Based Project 44
2.9 Blooms Taxonomy of Planning 45
2.9.1Criticisms of Blooms Taxonomy 46
2.9.2 Implications of Blooms Taxonomy to Skills Learning 47
2.10 Meaning of Participatory Action Research (PAR) 47
2.11 Relevance of Participatory Action Research to the Study 48
CHAPTER THREE: RESEARCH METHODOLOGY 49
3.0 Introduction 49
3.1 Profile of the Study Area 49
3.2 Research Design 50
3.3 Population 51
3.4 Sample and Sampling Techniques 51
3.5 Data Type and Source 52
3.6 Data Collection Instruments 52
3.7 Pre-Intervention Data Collection Procedure 53
3.7.1 Situational Analysis (pre-intervention) 53
3.7.2 Intervention Procedure 54
3.7.3 Post Intervention Data Collection Procedure 54
3.8 Data Analysis Tools for Post Intervention Data 55
3.9 Data Quality and Ethical Issues 56
CHAPTER FOUR: RESULTS AND DISCUSSION……..57
4.0 Introduction 57
4.1.1 Subjects Taught by Respondents 60

4.2 Discussion of Pre and Post Intervention Results..... 61
4.3Research question three:..... 76
4.3.1 Limited Knowledge of Teachers on School Based Project Assessment Implementation 76
4.3.2 Resource Constraints..... 77
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS……78
5.0 Introduction 78
5.1 Summary of Findings..... 78
5.2 Conclusion..... 79
5.3 Recommendations..... 80
APPENDIX 1 88
APPENDIX 2 91
APPENDIX 3 95

LIST OF TABLES

Table 4.1: Experience and Education Level of Respondents……63

Table 4.2: Subjects Taught by Respondents……..……64

Table 4.3: Skills of Planning General Objectives……..……66

Table 4.4: Skills of Planning Specific Objectives…….67

Table 4.5: knowledge of Bloom's Taxonomy of planning SBA Projects….……68

Table 4.6: Skills on Taxonomy of educational objective: affective……..…….69

Table 4.7: Skills of Developing Table of Specifications…….……..71

Table 4.8: Knowledge of Outlining SBA Instructional Content……73

Table 4.9: knowledge of Scoring……...……75

Table 4.10: Skills of Scoring Essays…….…….76

Table 4.11: Skills of Calculating Standard Deviation……...……78

Table 4.12: Skills of Reporting……..79

LIST OF FIGURES

Figure 4.1: Sex of Respondents……..……62

Figure 4.2: Skills on Taxonomy of educational objective: psychomotor……..70

Figure 4.3: Respondents Knowledge on Analyzing Students Projects using Average Score……..77

ABSTRACT

The purpose of the study was to improve the skills of Zanteli Junior High and Primary School teachers in conducting School Based Project Assessment in the Gushegu District of the Northern Region of Ghana. The project adopted a participatory action research design and collected data through two questionnaires: The Pre-Intervention and Post Intervention Questionnaire. A school-based workshop was conducted for teachers in the Zanteli Junior High School and Primary schools in the Gushegu District of the Northern Region of Ghana. Ten (10) teachers were purposively selected for the study. The study revealed that, teachers in the Zanteli Primary and Junior High School had limited knowledge in planning, scoring, analysing and reporting School Based Assessment. However, after the intervention training, there was evidence of increased skills of respondents in planning, scoring, analysing and reporting of SBA. In terms of project planning, the study revealed that a lot of teachers as high as 90% had very limited knowledge in preparing cognitive lesson plans with only 10% having limited knowledge/skills. Post intervention results however showed a significant improvement in the skills of teachers to 80% sufficiency in skills level. Finally, the study also revealed resource constraints and limited knowledge of teachers as the major challenges of successfully implementation of School Based Assessment Projects in schools. The study concluded by recommending that the Ghana Education Service supported by headteachers should provide regular skills training for teachers, enforce implementation by demanding from school authorities evidenced based reports from school authorities on their implemented School Based Assessment projects at least once per term from each school.

CHAPTER ONE

1.0 Introduction

This chapter focuses on the background of the study, statement of the problem, research question, objectives of the study, significance of the study, scope of the study and organisation of the study.

1.1Background of the Study

Since the introduction of formal education in Ghana, the concept of Continuous Assessment (CA) now known as School Based Assessment (SBA) has been an integral part of student development. Teachers assess students in the three domains of educational objectives (cognitive, affective and psychomotor) with the aim of developing the student holistically as the student climbs the educational ladder. Many countries have therefore found a solution to effective learning and assessment through the Project Based Assessment (PBA).

Project-Based Assessment is a form of performance assessment that evaluates the processes and a systematic process for gathering data about student achievement," is an essential component of teaching (Dhindsa, Omar, & Waldrip, 2007, p. 1261).In the language classroom, project work is a pedagogical approach that departs from a traditional focus on language in isolation and instead engages learners in using the language as they create meaningful products and investigate relevant issues (Dhindsa, etal., 2007). Project work thus emphasizes higher level thinking skills as learners analyze

problems, synthesize information, generate texts, and develop arguments to support conclusions (Harris & Katz, 2001).

The importance of School Based Assessment (SBA) cannot be over emphasized (Nneji, 2012, and Mwebaza, 2010). The major evidence weighted in support of continuous assessment in schools is that students who are assessed continuously obtain better results than those of equal ability, assessed through a single examination. This is because Continuous Assessment allows for more opportunities to test a wide range of abilities over a longer period of time than through single examination.

The term "Continuous Assessment" otherwise known as School Based Assessment is defined as the assessment of student's performance throughout the duration of a course rather than relying on an examination at the end of it, (Collings English Dictionary, 12th edition). Greaney (2001) also defined assessment as any procedure activity that is designed to collect information about the knowledge, attitude or skills of the learner or group of learners. School Based Assessment is a tool that is used by teachers at all levels in Ghana's educational system. School Based Assessment at the school level in Ghana emphasizes cognitive, affective and psychomotor that will help the student to develop to his/ her fullest potential. The use of School Based Assessment at school helps the teacher to be able to pass judgments about a student's performance and also be able to refer the student to the appropriate quarters for assistance if need arises.

The acquisition of School Based Assessment skills and competence by teachers at school enables teachers to put students in the position to make more meaning of their world and develop interest in their talents as an essential tool for science, research and development. Again, assessment of students learning of curriculum contents in the area of knowledge,

skills and values is a major pre-occupation of many educational reforms. This is because results from such assessment not only provide feedbacks regarding the educational progress of students but remain the authentic yardstick for measuring the effectiveness of the teacher, the instruction, and in part the functionality of any curriculum reforms.

Gushegu is the third largest district in Northern region which shares boundaries with Karaga District to the west, Mion District to the south, Saboba and Cheriponi Districts to the east and East Mampurisi District to the north. The District is one of the deprivedin northern Ghana where professional teachers do not easily accept postings to and has led to majority of teachers in the district being untrained. But Zanteli is a village under Gushegu District and it is about six kilometres away from the District capital. It is located on the Gushegu-Bawku eastern corridor high way. Zanteli has two schools, primary and junior high schools andit is also a circuit centrewhich serves as an educational hub for surrounding communities. The circuit has only one junior high school which was established in 2015 and has an enrolment of 41 pupils; 22 girls and 19 boys. The school has six teachers, five males and one female including the head teacher as its staff. The primary school has an enrolment of 120 pupils; 65 being girls and 55 being boys and has six teachers as its staff, comprising one female and the rest being males. The circuit has eight primary schools. Pupils who progress to the Junior High School form one from primary six do not come with proper records that can track their academic performance. And from the routine checks of pupils' exercises and assessment marks recorded by some teachers in the junior high school by the researcher in his capacity as head teacher revealed that all the five teachers have never given students project to work on which is part of the school based assessment system. Junior High School teachers are expected to

assess and record the performance of each individual pupil in to their cumulative record books as the pupil progress from one form to the other. By the time the pupil gets in to his/her final year, 30% of the marks he/she gets willform part of the final Basic Education Certificate Examination (BECE) that is organised by the West African Examinations Council (WAEC) and therefore, should be the true reflection of the pupil's performance.

1.2 Perceived Problem

It has been observed that, the Teacher Education Curriculum has not imparted much on teachers the skills of conducting School Based Assessment in many schools in Ghana. This has made teachers to resort to the traditional way of assessment with little help in improving learning by students. Many teachers in Zanteli Junior High School and Primary school have always encountered the challenge of conducting assessment projects in their various schools. The study therefore seeks to improve the poor project skills of Zanteli Primary and JHS school teachers on School Based Assessment (SBA) in the Gushegu District.

1.3 Diagnosis of the Problem

The problem was observed when investigating, as head of the school, was checking pupils' exercises, assessment template design for the teachers to record pupils' assessment marks according to the type of assessment done in order to ascertain how pupils are moving on with their studies and to equally monitor how teachers assess pupils. It was detected that from all the exercises given to the pupils, none contained project. Also, on the assessment templates designed for teachers to use and record the marks of pupils according to the type/or area of assessment done, showed that all the areas design for assessment were all assessed and recorded with the exception of the

project column. And upon interrogation with the teachers it was confirmed that most of the teachers has limited skills to assess projects. Similar trend was observed at the primary school level as the head teacher told the researcher "our main challenge is assessing pupils through project" and further checks on the pupil's exercises books confirm the above statement. No single project was carried out by pupils in their entire primary school assessment.

Although School Based Assessment system in Ghana emphasised the assessment of pupils in classroom, this was categorised into three areas: class exercise, class test and project in evaluating pupils' progress in schools. The latter was being ignored and considered burdensome and cumbersome. Continuous Assessment was originally weighted 40% but reduced to 30% when it became evident that the scores submitted by the schools to WAEC were mostly unreliable. The 30% score which is used by WAEC as the pupil's Continuous Assessment and is to be added to the final examination score of the Basic Education Certificate Examination organised by WAEC. This is meant to ensure that, the result or certificate of the pupil is a true reflection of the pupil's performance must be taken serious and hence this study.

1.4 Statement of the Problem

Since the introduction of School Based Project Assessment into the school curriculum, it was expected that, with its implementation teachers will get the full understanding of students' abilities, and to support students in developing their abilities through a personal learning path. Having taught for quite a long time, the researcher has come to the realization that most teachers in Zanteli Junior High School do not undertake School Based Projects Assessment which is a key component of the educational curriculum in

Ghana. Again, few teachers who have attempted its implementation have express limited knowledge in executing the idea to the full benefits of their students. Although evidence suggests that such School Based Assessment enhanced student learning and motivation (e.g., Bredderman, 1983), their adoption and successes were not as widespread as desired. According to Blumenfeld, Soloway, Marx, Krajcik, & Palincsar (2011) the reasons for this included the fact that the projects were developed and disseminated without sufficient appreciation for the complex nature of motivation and knowledge required to engage students in difficult and reflective work. Despite the far-reaching importance of School Based Assessment, the inability of many teachers in Zanteli to assess their students' projects has contributed to the poor performance of students in the basic education certificate examination (BECE) in the district. This has resulted in some people raising questions about the falling standards of education in the district.

How teachers teach is largely determined by the knowledge, attitudes, values, theories and assumptions they already hold about teaching and these were likely to be based on their own first-hand experiences and observations as classroom learners (Richards, 2001).This has resulted in the poor judgment and placement given to many students in the school and could be traced to the insufficient skills that many teachers in Zanteli have in assessing students projects in the district.

According to Brookhart (2002), studies of what teachers are or should be taught and what they know have generally concluded that teachers' knowledge of large-scale testing is limited especially in the important area of communicating assessment results to students, parents and administrators. The findings also indicated that teachers have limited skills at

gathering and using classroom assessment information for improving student learning. In fact, the findings of many other researchers have also concluded that courses in testing and measurement for teachers should increase emphasis on classroom assessment, and decrease emphasis on large-scale testing (Brookhart, 2002).

Thus, we must acknowledge the fact that if teachers possess low levels of knowledge in assessment they may not be able to help improve student learning. These teachers may feel overwhelmed and frustrated and consequently might display undesirable work behaviours towards performing best practices in School Based Assessment.

If efforts are not made to investigate and to improve the best practices of teachers in School Based Assessment, the noble aspirations that the Education Ministry hopes to achieve with the implementation of the School Based Assessments may not be fulfilled. This study therefore seeks to improve the skills of Teachers in Zanteli Schools on the skills of undertaking School Based Project Assessment.

1.5 The Purpose of the Study

The purpose of this study was to improve the project skills of Zanteli Teachers on School Based Assessment (SBA) in the Gushegu District. The study was intended to offer skills training to teachers which will facilitate monitoring and provide feedback information to teachers to adjust their teaching and to improve students' learning skill.

1.6 Objectives of the Study

The main purpose of the study is to enhance Zanteli teachers' skills in students' project assessment in Gushegu District. Specifically, it was intended to:

1. Improve School Based Assessment planning skills of Zanteli teachers

2. Increase teachers' knowledge in scoring, analyzing and reporting of School Based Assessment
3. Examine the challenges teachers faced in Implementing School Based Assessment

1.7 Research Questions

1a. What is the knowledge base of Zanteli Primary and Junior High Schools teachers in planning SBA in Zanteli schools before intervention?

1b. What is the knowledge base of Zanteli Primary and Junior High School teachers in planning SBA in Zanteli schools after intervention?

2a. What is the knowledge base of teachers on scoring, analyzing and reporting of SBA before intervention?.

2b. What is the knowledge base of Zanteli Primary and JHS teachers on scoring, analysing and reporting of SBA after intervention?.

3. What Challenges do teachers faced in the implementation of School Based Assessment?

1.8 The Significance of the Study

The importance of this action research is enormous. Good students' assessment serves as success in schools. It is hope that the results of this research would help improve upon the poor project assessment of students in schools more especially junior high schools. It is expected to provide better classroom, good methods and techniques of continuous assessment (SBA) of students by teachers. Also, it is the hope of the researcher that after taking teachers through the processes and the activities involve in School Based

Assessment would provide information on assessment achievements of students in Zanteli schools in the District. It will guide policy makers to re-shape and implement educational policies. This will improve the achievement level of assessment in students by teachers in the district.

1.9 Limitation of the Study

A study like this nature exploring more into the ways and manners by which people discharge their work duties always has the challenge of respondents' apathy. The researcher had to employ more data collection skills by probing respondents further to illicit the needed information. Getting the head of the Zanteli Primary School to interview was also a challenge to the researcher as he was not readily available. Traveling from Gushegu to the regional capital to meet the supervisor for guidance was also a challenge. Frequent printing and photocopying of research materials also became a serious challenge to the researcher and tired the hands of the researcher in his work.

1.10 Delimitation of the Study

The problem was focused only on improving the project skills of Zanteli teachers on School Based Assessment. The research work is limited to only Zanteli school teachers. The researcher included 5 subject teachers from the junior high school with five (5) classroom teachers from the primary school to find the existing difference in their assessment of study. Gushegu District was chosen because the researcher is a teacher identified the problem a school in the District.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter aims at reviewing materials which are available in books, articles, journals, research works, unpublished works, long essays, magazines and others that are related in a broad way or focused on the problem under research. It is discussed under the following themes/topics:

1. School Based Assessment (SBA)
2. The Importance of School Based Assessment
3. The Underpinning Learning Theories Influencing Assessment and Teaching Techniques
4. Challenges of School Based Assessment
5. Challenges that confront Teachers in conducting Project Based Assessment
6. Project Skills that Teachers need in conducting School Based Assessment

2.1 Meaning of School Based Assessment

School Based Assessment (SBA) refers to assessment that is designed and conducted by teachers in schools (Cheng& Lee, 2010). There is neither a clear-cut definition of SBA nor parameters for its implementation. The key to successful implementation of SBA depends on whether it delivers what it claims (Mercurio, 2008). Burton's (1992) suggested some features of good assessment which includes; Be appropriate to what is being assessed, enable the learner to demonstrate positive achievement and reflect the learner's strengths, have clear criteria for successful performance, Be appropriate to all

persons being assessed and be balanced with the learning pattern. These attributes can best be compared to the features of SBA. However,

Burton's proposal put the focus of assessment on the teaching and learning process. School Based Assessment is taught to match these criteria as it is an assessment carried out with the prime purpose of improving student's learning and increasing the validity of assessment (Harp – Lyons, 2009). It is a response to the change of expectations of schooling (Manitoba Education, 2006).

According to Zambia education policy dubbed "Educating our Future" defines school based continuous assessment as "--- an ongoing diagnostic and school based process that uses a variety of assessment tools to measure learner performance" (Kapambwe, 2010). The school based continuous assessment in Zambia is therefore based on the use of a variety of assessment procedures, formative and summative, on an ongoing basis.

Based on the above definition of School Based Assessment it can be seen as a continuous assessment as it uses a variety of assessment procedures hence defined as a classroom strategy implemented by teachers to ascertain the knowledge, understanding, and skills attained by pupils. Teachers administer assessments in a variety of ways over time to allow them to observe multiple tasks and to collect information about what pupils know, understand, and can do. These assessments are curriculum-based tasks previously taught in class, (USAID EQUIPI,2003).

According to Amoah (2012), school based assessment as a kind of assessment carried out in schools by pupils' own teachers, with the prime purpose of improving pupils' learning –Richard DCL, Gonzales. Further describes SBA as a formative and diagnostic task

geared towards improving the quality of teaching, learning and the mode of assessment itself. To him SBA is a two-way communication link. Teaching and learning is said to be effective when a given learning experience is properly assessed and evaluated. No matter the mode of assessment, there is the need for the instructor to take a critical look at some factors. Simply put it must be valid, reliable, consistent and user- friendly.

A teacher who has taught a lesson very well but failed to assess learners is just like the one who has not taught anything at all. A good teacher must assess pupils regularly and undertake proper evaluation of any lesson delivered (Amoah2012).

Assessment is the process of obtaining information that is used to make educational decisions about students, to give feedback to the student about his or her progress, strengths, and weaknesses, to judge instructional effectiveness and curricular adequacy, and to inform policy (American Federation of Teachers, 1990). The various assessment techniques include, but are not limited to, formal and informal observation, qualitative analysis of pupil performance and products. Paper-and pencil tests, oral questioning, and analysis of student record. The assessment competencies included here are the knowledge and skills critical to a teacher's role as educator.

Australian Journal of Teacher Education on the topic: "Student Voices in School Based Assessment" viewed SBA as premised upon the notion that regular, classroom- based assessment provides a reliable indicator of student learning, while also contributing feedback for future learning (Brown & Hershfeld, 2008).

The term "continuous assessment" also known as SBA is defined as the assessment of student's performance throughout the duration of a course rather than relying on an

examination at the end of it, (Collings English Dictionary, 12th edition). Greaney (2001) also defined assessment as any procedure or activity that is designed to collect information about the knowledge, attitude or skills of the learner or group of learners.

2.2 Importance of School Based Assessment

It is undisputable fact that the benefits or use of School Based Assessment (SBA) in our modern schools has been of a great blessing to pupils, teachers, schools and institutions, which people and institutions talk and write about which is to be reviewed:

Assessment should be viewed as a tool to measure the effectiveness of teaching and learning process and should not be interpreted as the objective of student's learning experiences (Yong & Lim, 2008). It should serve as a means to attain educational goals. MOE Malaysia believes that SBA has the characteristics that fulfill the above requirement. And it is the ideal assessment system to relieve students' pressure while at the same time allowing teacher initiative in assessing their students (Brown, 2001). It means that school-based assessment creates a space for both the teacher and the student to have time to reflect on what is taught and learned in order for the teacher to understand which teaching area needs amendment and correction and do so. The student also assesses him/herself to know his/her weakness and reports to the teacher for corrective measures to be taken to avert that difficulty.

The benefits laid down by the Hong Kong SBA Consultancy Team (2005) for using SBA in teaching a language subject such as English, includes providing stable and continuous pressure-free assessment, reducing the reliance on standardized examination, improving test item reliability, reflecting students' ability, promoting leisure reading, fostering

teaching, enforcing independent learning, facilitating learning autonomy and empowering teachers in the evaluation process.

SBA may also serve multiple purposes such as providing summative information and improving learning (Bell & Cowie, 2001). The ongoing nature of SBA provides teachers with a formative view of the students' progress, helps them to adjust the instruction to suit the specific needs of students (Black & Wiliam, 1998; Wong, 2007), and identifies students' depth and breadth of understanding, thus improving their learning (Dori 2003).

Assessment is an integral part of instruction as it determines whether or not the goals of education are being met. Assessment inspires us to ask these hard questions: "Are we teaching what we think we are teaching?" "Are students learning what they are supposed to be learning?" "Is there a way to teach the subject better, there by promoting better learning?" When assessment works best, it provides diagnostic feedback to the teacher to understand the student's knowledge base, the student's performance base, the student's needs and what has to be taught.

Assessment is a critical step in the learning process. It determines whether or not the course's learning objectives have been met. A learning objective is what students should know or be able to do by the time a lesson is completed. Assessment provides frequency and feedback as it is designed in a way that enables students to understand their progress towards course goals and modify their behavior in order to meet those goals. In order to do that, assessment should be ongoing. In order words, classes that use one or two exams a term are not using assessment as effectively as it could be used. For students to gain a true representation of their understanding, frequent assessment is critical, and it should be accompanied with feedback.

Education in the school system consists of a variety of practical work as well as theoretical work. SBA therefore gives schools the chance to ensure that the performance of pupils on both practical skills and theoretical knowledge is reflected in the marks pupils obtain on their End-of-Term examinations. Learning does not take place only in the classroom. Education is a broad concept and pupils are expected to learn from a variety of sources; from their teachers, from their friends and elders, from the library, from the Internet and generally from their environment. All these sources contribute to the education of the young person. The seriousness with which pupils learn in the classroom and outside the classroom should therefore be reflected in the assessment system of schools. (SBA Manual)

Reduced number of assessments and mark recordings: School Based Assessment has been designed to reduce the amount of workload in the previous continuous assessment system by 64 percent on the part of the student and by 53 percent on the part of the teacher. The reductions have been made to reduce the tediousness in the School Based Assessment process and at the same time make it a more useful tool for improving school performance and for improving the thinking abilities of school children. (SBA Manual)

Emphasis on student-centred learning: One of the major problems that lead to low performance of students on national tests (National Education Assessment (NEA) and BECE) is the predominantly teacher-centred approach used in the instructional system in schools. As a method for improving this situation, the syllabuses that the Ministry of Education has issued to schools since 2000 have all stressed the importance of high ability thinking skills on the part of students. The full impact of this has yet to be realized. However, the School Based Assessment system puts a lot of stress on project

undertaking. This is the component that allows the student individually or in groups, the freedom to explore different ideas and skills to produce something of their own. This is the student-centred learning component which should help in improving the standard of education in the country (SBA Manual).

2.3 Challenges of School Based Assessment

Teachers have had to face a number of difficulties when School Based Assessment (SBA) was introduced for most subjects' curriculum. The emergence of School Based Assessment implies a shift in the philosophy of assessment from a "testing" model to a broader model of "educational assessment" (Yung, 2001: 986-987). School Based Assessment is believed to foster student learning and development and promote better validity of assessment (Cheung, 2001; Harp-Lyons, 2009; Keightley & Coleman, 2003). As it aims to meet students' learning needs, one essential element of School Based Assessment is to collect evidence of student performance in the process that is not assessed easily through high stakes examinations. Since School Based Assessment is a forward-looking approach that supports students to engage in individual learning paths (Black & Wiliam, 1998; Grima, 2003; Wong, 2007), it is thought to be a way to engage students of diverse learning styles (Keightley & Coleman, 2003). The following have been found to be the challenges associated with the implementation of School Based Assessment in schools;

2.3.1 Lack of Skills by Teachers

Although School Based Assessment offers many promises in terms of improving teaching and learning, these intentions are not always achieved. Yip and Cheung (2005) found that teachers might not necessarily have the skills to achieve the objectives of

School Based Assessment. Differences in students' ability and learning attitude may also influence the effectiveness of teaching and learning (Yung, 2001). This therefore requires teachers to have enough skills that will factor in their assessments the learning differentials of students. Along with these findings, there are a number of skill challenges that teachers have to face when implementing School Based Assessment are; making assessment appropriate to students, diagnosing the learning needs of students accurately, and responding accordingly, creating a supportive and non-competitive assessment environment and helping students to develop a personal learning path.

To address these challenges, having clear assessment criteria is considered to be important. Postholm (2006: 161) concluded in her research of assessment for projects, 'It is . . . important to decide what is going to be assessed, by whom and why you want to assess it before settling on how the assessment procedures are to be conducted'.

The effectiveness of School Based Assessment is thus not limited to its technical design. School Based Assessment is more likely to be influenced by human factors. As teachers are the key players in School Based Assessment who conduct instruction as well as assessment (Broadfoot & Black, 2004; Keightley & Coleman, 2003), their understanding and perceptions of assessment have a great influence on its implementation. Apart from affirming the dual role of teacher and assessor, and that teachers may hold onto a 'testing paradigm', Cheung (2001) identifies two additional issues related to the narrow range of assessment tasks prepared by teachers and the limited use of internal assessments for diagnostic purposes. Since teachers are so used to the examination-oriented assessment approach, the introduction of SBA requires their willingness to participate in and their devotion to the new form and approach of assessment, as well as teaching and learning

(Ogan-Bekiroglu, 2009). Theyalso need to have appropriate knowledge and skills to put it into practice (Sato, Coffey, & Moorthy, 2005). Without these knowledge and skills, they may feel insecure in practicing School Based Assessment and be easily tempted to turn back to their usual practices.

Cheung (2001) reported that in an open-ended survey (n=53) teachers expressed a wide range of worries, for example, their ability to design high-quality assessment tasks, whether School Based Assessment will affect teacher-student relationship, assessment method to be used etc. A strategic review of assessment identified an even more serious issue (challenge) involving teachers in SBA the public does not trust teachers (IBM, 2003, p.34):

2.3.2 Lack of Trust for Teachers

Another reason put forward in the past for limiting school-based assessment is the public's ostensible lack of trust for teachers. This has been too readily accepted as received wisdom. It dates from a period before teaching was a trained profession, and it no longer fits the modern education system. Numerous questions about the roles and judgments of teachers were raised, related to validity and reliability in School Based Assessment (Chang, 2004; Hau, 2004). In one sense they are technical questions but they go to the heart of public confidence in SBA and therefore they are not always easy to address (Chang, 2004).

The challenges and among the challenges are those related to man, machine, materials, methods and environment.

2.3.3 Lack of Human Resource as Hindrance to School Based Assessment

The main issue identified which is related to the man is school readiness in implementing School Based Assessment. It was found that school administrators and teachers still have difficulty in accepting the changes made in the policy. The reason being they do not get sufficient information on School Based Assessment and lack of relevant trainings. Another issue is teachers' skills which are found inadequate especially in the aspect of developing various assessment instruments other than written tests which they are used to. Materials on School Based Assessment are found to be insufficient for the teachers to refer to whenever they encounter a problem or have uncertainties to implement School Based Assessment.

The situation in Ghana is not different as some schools do not have School Based Assessment manuals and materials for teachers to quickly refer to whenever they have problems. Again, school administrators (Head teachers), supervisors and teachers are not given professional trainings on School Based Assessment issues.

2.3.4 Environment as a Hindrance to School Based Assessment

The environment-related issue in the implementation of School Based Assessment is the class size where the number of learners in each class could reach up to 50 in areas with high density of population such as the urban areas. Teachers in such schools will have hard time organising and managing learner-centred activities and assessments that cater for individual differences. On top of that they have to record learners' progress and development regularly. Physical development in the form of building more classrooms in a limited space of the school compound is sometimes not possible. Therefore, teachers

are encouraged to apply collaborative teaching in the classroom so that School Based Assessment could still be carried out without burdening them too much.

Ghanastill has schools that do not have structures and pupils have to sit under trees as classrooms that are not well organised for teaching and learning. Coupled with the huge number of students in classes in some schools ranging from 50 above, makes it difficult for teachers to do proper teaching and assessment of pupils' learning.

2.3.5 Materials as a Hindrance to SBA

Formative assessment (SBA) requires that the assessor know in advance both the material that students are supposed to grasp and the different alternative and problematical ways in which students may fail to grasp it. In order to obtain this information, a teacher either has to have a great deal of experience evaluating students' reasoning or be aware of research literature on student beliefs and disbeliefs. The depth of this literature varies greatly across disciplines. In the general case, requiring all teachers to be experts at formative assessment (SBA) is not feasible. Earl Hunt and James W. Pellegrino (2014).

According to Lo Yiu Chun in the study "Practice and Challenges of School- based Formative Assessment" found a number of challenges associated with School- based Formative Assessment in the school. Among them are:

In the implementation of school-based formative assessment approach, the school had encountered a number of challenges in the process. Very often, there were new teachers joining the school in new academic years, some of them might not have the professional knowledge and skills in school-based formative assessment. Some others might not agree with the use of formative assessment or would not be willing to change their mind-set unless they saw the good results of formative assessment. The school had to allow

adequate time for these new teachers to establish their relevant concept and practice. The existing teachers in the school needed to have the professional knowledge and patience to help the new colleagues to understand and work on formative assessment.

Due to the fact that assessment design in the school was based on class levels, each class level would have different modes in their assessments. Subject teachers who used to teach primary 4 classes would not know what was happening at primary 2 level. Thus coordination between class levels appears to be important and necessary. Besides, teachers often had differences in their marking of students' work. They might give high marks to their favourite pupils. So, the teachers needed to have consensus in assessing pupils by sitting together to discuss about the marking criteria. For example, in marking Chinese composition, teachers discussed about how to count the scores in relation to the content, structure, writing styles and use of phrases as well as their weightings. In order to ensure the use of set criteria, they then picked one or two papers for pre-marking with the use of these criteria and weightings. This was regarded as an effective way to minimize the differences between teachers' markings. At the end, when they had some assessment papers with very high marks, they would ask other colleagues to mark the same papers again. If the marks were different, they would suggest a score for the colleague to change the marks. Similar work would be done for those assessment papers with low marks.

Kot also notes that the School Based Assessment system creates additional challenges for teachers. Without enough resources, schools are increasingly asking teachers with free periods to teach liberal studies. Kot, who oversees a team of 10, says they are all call on

to teach the subject, even if it is not their area of expertise, and some struggle with it (Mabel 2013).

2.4 Challenges that Confront Teachers in Project Based Assessment

There is a number of inhibiting factors or challenges that confront teachers in trying to implement project assessment in their various classes or subject areas and among them are those which are already reviewed by other researchers and scholars as follows:

The way that learning is assessed is yet another way to understand project-based learning. Much of the assessment that takes place in project-based learning experiences is authentically generated – a quality check on group progress, assessment of content knowledge to gauge readiness to address a driving question, or a final presentation of findings much in line with what someone would do in the workplace. Because of this, students are assessed differently in the project-based learning classroom. Self-reflection, group reflection, process and project evaluation all play a role in the quality control process of the learning experience. Much of the literature about project-based learning addresses the need for assessing student learning through a discussion of rubrics (Barell, 2010; Bell, 2010; Boss, 2012; Callison, 2006; Larmer & Mergendoller, 2010). Rubrics capture the breath of content and standards as well as the process of getting at the content and standards. Rubrics can identify progress toward previously identified goals and how well the group has worked together to meet the goals. Rubrics can be either holistic or analytic/descriptive. The holistic rubric provides a general descriptor of performance to derive a grade. The analytic rubric delineates levels of performance for each descriptor (Bender, 2012, p. 162). The use of rubrics is a way for the students to come to agreement

on the goals of the project by how it will be assessed and can be used as a formative and summative assessment tool throughout the learning process (Markham et al., 2003).

Self-reflection through journaling is also another important form of assessment in project-based learning (Barell, 2010; G. Solomon, 2003). Like with the use of rubrics, self-reflection can be used for a wide range of evaluation and assessment purposes. Students can reflect after a task is complete or as a part of a quality check as the project is progressing. The reflection can be about the process or the product. It can be used to derive a grade or to determine the quality of the learning experience for the groups or the individuals in the groups (Bender, 2012). Students can use charts or rubrics or simply use a journal or discussion prompts.

Other selected literature identifies the school assessment of project-based learning as challenging for some teachers since the learning experiences associated with project-based learning are often group-based, cross-curricular and multifaceted (Bell, 2010; Bender, 2012; Boss, 2012; Colley, 2008; Solomon, 2003).

2.4.1 Challenges of Project Skills Assessment

The challenges associated with implementation of PBL describe the processes of planning and enacting project-based learning. Major works in this area has come from the University of Michigan (Krajcik, Blumenfeld, Marx & Soloway, 1994; Krajcik, Blumenfeld, Marx, Bass, Fredricks & Soloway, 1998; Marx, Blumenfeld, Krajcik, Blunk, Crawford, Kelley & Meyer 1994; Marx, Blumenfeld, Krajcik & Soloway, 1997). In general, these studies conclude that both students and teachers face a much more complex set of challenges in Project Based Learning experiences not associated with the application of more prescriptive lessons.

The study will deal more with the challenges of the teacher in carrying out PBL assessment. Krajcik et al. (1998) and Marx et al. (1997) describe the following difficulties encountered by teachers:

1) Time: Project Based Learning as an investigative projects as such require more planning time and classroom time than typical lessons on both long term and daily bases.

2) Classroom Management: Teachers must balance student autonomy with order.

3) Subject Depth: Teachers need to focus on a driving question and link concepts and diverse activities, helping the students to construct their own knowledge rather than didactically teach single subjects.

4) Assessment: Project Based Learning requires alternative forms of evaluating the student's knowledge.

There has been a shift from traditional assessment forms to a newer paradigm, alternative assessment. Particularly, the emergence of formative and summative assessment as two different formats has attracted educators' attention in the current literature (William & Thompson, 2008). The have argued that the use of assessment for student learning is the main feature of formative assessment. However, Bloom (1969) proposed the terminology "formative" and "summative" assessment, given the reason to differentiate the role of evaluation. Formative assessment is introduced as an ongoing process of evaluating students' learning, providing feedback to adjust instruction and learning, improving the curriculum (2008). Summative assessment, on the other hand, is bound to administrative decisions and assigning grades to the tests.

Bloom (1969) asserts that when assessment is aligned with the process of teaching and learning, it will have "a positive effect on students' learning and their motivation" (as

cited in Wiliam, 2008, p. 58). Assessment in general accounts for "supporting learning (formative), certifying the achievement or potential of individuals (summative), and evaluating the quality of educational institutions or programs (evaluative)" (Wiliam 2008, p. 59). Black and Wiliam (2004) put more emphasis on the use of assessment to support learning.

2.5 Requisite Skills needed by Teachers in Conducting School Based Assessment

School projects are very important part of the student learning as it broadens the knowledge and expose students to the real-world problems and make them fit/or ready/or open up to the 21st century work force. However, the lack of these skills by some teachers put their students' future in jeopardy, hence the need for this in-service training to build teachers project skills in assessing pupils and below are some of those skills:

Project Based Learning (PBL) is a teaching method in which students' gains knowledge and skills by working for an extended period of time to investigate and respond to a complex question, problem, or challenge using project management techniques. They do this by engaging with designed "learning projects," sequences of learning experiences that give students lots of opportunities to practice and improve all of their skills, while engaging in meaningful, real-world work that addresses compelling questions and problems.(http://projectmanagement.p21.org/toolkit-skills)

PBL has proved to be an excellent approach to help students to build the learning and innovation, digital literacy, and career and life skills that are increasingly recognized as essential to work and live today. For example, research in recent years across several academic subjects has shown that PBL is a highly effective method to help students learn content, process, presentation, and problem-solving skills. In a Stanford University

review of the accumulated research on learning methods used in projects, PBL has been shown to help students:

- Learn more deeply when they apply their knowledge to real-world problems.
- Participate and contribute in tasks that require sustained engagement and collaboration.
- Achieve higher levels of academic performance and personal development, regardless of the student's background or prior academic record.
- Become more successful by learning how to learn as well as what to learn.

The Project Management Institute Educational Foundation (PMIEF) defines a well-designed, effective learning project as one that has the following features:

- Project outcomes are tied to curriculum and learning goals.
- Driving challenges that lead students to the central concepts or principles of the topic or subject area.
- Student investigations and research involve inquiry, problem-solving, and knowledge building.
- Students are responsible for designing and managing much of their own learning.
- Projects are based on authentic, real-world problems and questions that students care about.

According to Thom (2016) in his article "7 Essential Skills for Project Based Learning Teachers indicated the need for teachers teaching projects to have skills he deemed as essential. To him Master Teachers are usually measured by their ability to deliver high quality instruction and manage classrooms so that every child learns. These basics apply

to project-based learning (PBL) as well, but this study has found that successful PBL teachers must possess a more diverse-and demanding-set of skills to make project-based work effective.

2.5.1 Essential Skills of PBL

Some of the essential Project Based Learning skills can be taught or learned, and some, frankly, are more personality driven. But every PBL teacher should think about becoming skillful in these seven areas:

1. ***Know World-class PBL Methodology:*** Project based learning and 'projects' are two different worlds. Over the last decade, PBL teachers in many countries have developed high quality methods that work. The methods begin with organizing a project around a central, vital, and engaging question, moving students through a deliberate process that requires them to think, inquire, share, reflect, and perfect their products and reasoning, and concluding with a meaningful demonstration of their learning that surfaces content acquisition, conceptual understanding, and application of 21stcentury skills. Getting results from Project Based Learning is not serendipitous; it comes from using thoughtful, replicable methods (Thom 2016).
2. ***Create a Culture of Care:*** You might prefer to call this a 'student-centered' culture, but it is believed that the underlying dynamic that drives better performance in Project Based Learning is a personalized classroom culture in which every student feels known, respected, and communicated with (Thom 2016). This isn't just a nice thing to do; it's the known result of years of youth

development research that demonstrates that a culture of care allows you, as the teacher, to assume a *mentor* role. The mentor role allows you to both 'push' and 'pull' students through h the ups and downs of the Project Based Learning process. If you're not in that role, you will find it difficult to move from a classroom manager to a project manager, a crucial shift for successful Project Based Learning.

3. ***Shift from Teacher to Coach:*** In a traditional classroom, human variation is muted by rows, a standardized lesson, and the teacher's ability to keep an eye on every student. In PBL, personalities bloom, tendencies—good or disruptive—emerge, and students often confuse the freedom to inquire with the license to mess around. The messiness can be cured only by coaching individual students to perform better—by speaking to their strengths, helping them see their challenges, and returning at all times to the standards and norms for top performance (Thom 2016). In a traditional classroom, the end product is paramount. In PBL, the process of learning assumes equal weight as an outcome. Success on the journey often entails what I term the art of 'ruthless compassion.' Give every student maximum support; require every student to perform at their best.
4. ***Use the Tools of People Management:*** Like the methods for world class Project Based Learning, a set of tools has been developed, largely in industries outside of education, that help people stay on task, achieve goals, and work harmoniously. In Project Based Learning, nearly everything you do has people management ramifications. This begins with norms and performance expectations, agreements on behavior, and clear directions. But other elements contribute just as much: (1)

A clearly stated Driving Question that captures imagination and starts the project in the right direction; (2) a consistent explanation of the *why* behind the project; (3) an air of experiment, problem solving, and discovery; and (4) a promise that, at the end of the project, the results will matter to someone besides the teacher or the test designers.

5. ***Make Teamwork Productive:*** Project Based Learning is a group-based form of learning. But an essential step is to move from the language of groups to the more powerful vocabulary of teamwork and to teach team members to think deeply together. To achieve high quality work in PBL, there can be no, "Well, she's sick today and she has all the stuff and we don't know what to do." Or, "I did all the work and I got a 'C' because my group slacked off?" In teams, everyone is committed to each other's success and everyone assumes accountability. Project Based Learning teachers have developed tools to spur this process, including work ethic and collaboration rubrics, contracts, and bonus point systems to reward initiative and empathetic behavior. If you're not using these tools, you're not taking advantage of methods that work. And, most important, if your teams don't work, neither will your projects.
6. ***Know how to Teach and Assess 21st Century Skills:*** Project Based Learning is the best method we have for teaching students how to solve complex problems. But to get to a meaningful solution, students need to master the skills of collaboration and self-management. And, to show us how they arrived at a conclusion or created a product, they need to communicate effectively. That's a short version of why Project Based Learning is central to teaching 21st century

skills. But Project Based Learning teachers face a challenge: Nothing has been standardized in regard to teaching or assessing these skills. Solid performance rubrics have been developed but are rarely used school wide. I urge PBL teachers at every school to band together and agree on rubrics and methods for assessing 21st century skills (this is a prime topic for PLC work), as well as sharing ideas on how to teach these skills.

7. ***Value Reflection and Revision:*** Finally, educators can learn from the slow food movement. High quality PBL requires a different time frame and expectation, primarily because problem solving is not a linear, 50-minute period experience. This means not just being flexible (one of the prime qualities of the successful PBL teacher), but also making reflection and revision, in pursuit of excellence, central to the process of learning. This takes several forms. First, during a project, encourage drafts and prototypes, then structure time for peer debriefs, jig saws, or other disciplined ways for students to share and exchange ideas. At the end of a project, reflect and debrief thoroughly. Make excellence a standard for your projects.

2.5.2 Lauren Ayer Four Skills of Project Based Learning

According to Lauren (2008), that there are 4 skills that all teachers teaching projects should possess in other to make a greater impact on students as presented below;

2.5.2a Begin at the End

According to Lauren (2008) when planning a project, begin with the end in mind. What content do you want students to understand by the end of the project? What 21st century

skills will they be expected to gain? How will new information be presented to learners? What will be the end product of your project to showcase what students have learned?

Planning project-based learning takes time. Coming up with new ways to present information and showcase student learning can be a challenge. Luckily, there are a lot of resources available to get elementary, middle, and high school teachers thinking about what their students can accomplish.

2.5.2b Help Students Develop Questions

In project-based learning, students are driving a lot of their own learning. Teachers are there to facilitate learning and guide students toward answers to their questions—not to answer the question themselves through the project skills acquired or learned. Teachers should therefore learn the following skills for effective School Based Assessment implementation in their schools (Lauren 2008);

- Generate questions by finding out what students think they know about a topic. Brainstorm and record all of these ideas (Even if what students think they know is inaccurate. Resist the urge to correct. Let students discover their mistakes for themselves through the project process). What do students want to know? Record all of their questions on a chart or other visual. Finally–and most crucially–help students use your questions as models to develop their own questions. Once students have questions they want answered, start with the largest content ideas first.
- Go on field trips. Think beyond traditional museums and exhibits. If your class is studying the skeletal system, you can visit a nearby hospital or orthopedic office.

If you're studying economics, visit a local business. The teacher can also invite guest experts to come and share what they know. Call on students' parents, friends, or local community members to share their knowledge.

- Provide engaging opportunities for students to engage with the topic. This may come in the form of a WebQuest, reading, online games, interactive activities, or experiments. At this stage, you want all students to be exposed to the bulk of the content. They are searching for answers to their own questions and discovering what this project is all about.

The effective acquisition and utilization of these project skills by teachers of Zanteli schools will promote learning and proper assessment by teachers based on students' competency and abilities.

2.5.2c Help Students Understand to Think Like an Expert

According to Lauren (2008) this is where student choice comes into play and that Students get to hone in on one aspect of the project topic in which they are most interested. They find out everything they can about that topic in order to share it with others. For example, if your class is studying landforms, a student may choose one landform to learn more about. He/she may choose to focus on the Mountain Afajato—what is its significance? What impact does it have on the community around it? What recreational and economic opportunities exist as a result of its existence? How did it form, or how long has it been a major resource for Ghana?

The questions can get as specific as you allow. This is when students discover that not all of their questions will have answers. They will have to explore a variety of resources and synthesize information. 21st century skills of critical thinking and problem solving,

flexibility and adaptability, and productivity and accountability will be on full display during this stage.

2.5.2d Help Students Present, Publish, and Perform

This is the end that you, as a teacher, started with when you were planning. During this final stage, students will be required to organize all of the information they have gathered in order to share it with others. This holds students accountable for all of the learning they have done to this point. They will have the opportunity to use the 21st century skills of creativity and innovation, communication and collaboration. Students may be creating a life-size model, making a brochure persuading people to visit a particular landform, creating their own business, reenacting an experience they were part of during the field experience, or any multitude of presentations. They will study and critique each other's work to ensure that they are presenting their best product.

Invite others to come see what students have learned. Invite students in other grades who are studying similar topics. Invite parents, administrators, community members, and the guest experts that helped you in the beginning. Or go out into the community to present your project to those who would be interested in the results of your projects! Students will practice communication and presentation skills. You will be amazed by how well students perform when they are engaged in a topic and held accountable for their learning.

In short, Planning, Questioning, Thinking and Presentation skills in project-based teaching are essential skills for every teacher to acquire.

Also, according to project- management- skills in an article posted on this website on February 29, 2016 with the title "Teaching Project Management Skills" listed the following as components of project management which the researcher think are areas a teacher should have skills in other to be able to teach and assess pupils projects well which will be the main focus on skills training in Zanteli are: Objective, Scope, Resources, Responsibilities, Action Items, Risk Factors, Schedule, Budget.

Objectives - Teachers should have an objective skill to help students be able to clearly articulate all the goals related to their assignments- both the actual, concrete deliverable(s) and the underlying objectives.

Scope- the scope of a project is tied to the objectives, but includes more details on "what's involved", having this skill as a teacher will enable students list elements of the project such as length, delivery format, level of detail and any other specific requirements you have assigned.

Resources- Some projects may require no resources outside of time, manpower, paper and pencils. Others may require computers or smart phones, library books, supplies, DVDs, parental assistance, transportation, etc. Teachers should possess this skill to guide students to list all required resources to complete the objectives, and the sources they will use for acquiring them. Acquiring resources should then be built into the schedule, as one or more of the project steps.

Responsibilities –Since the students are working as a team, they should be able to clearly define which team members are responsible for which parts of the project; teachers

should be able to demonstrate this skill in the teaching and assessment of students' projects.

Action Items – Action items are all the "to – do's" that must be accomplished to complete the project – both team and individual assignments. Each team member should list their individual action items and then review them with their group, to ensure that all angles and responsibilities are covered. Another project skill teacher must have.

Schedule - The Schedule, sometimes referred to in the business world as a work plan, is the primary component (skill) of the project plan, incorporating almost all the other components. Once it is completed, it is an excellent guide for executing the project and achieving project success. Scheduling starts with the due date and works backwards from there. Students must break the project down into steps, and determine individual due dates for each step, including suitable timeframes for the group to carefully review their work, proof – read all deliverables, and make edits or improvements, as necessary. Elements of the Responsibilities, Resources and Risk Factor components should be incorporated into the schedule. It should show which team member will handle each step, when supplies will be acquired, and how the group will handle issues if they arise and a good teacher should have this skill in teaching pupils project as well as assessing it (Lauren 2008).

Budget –If no financial resources are required to complete your group assignment, you can plan a separate budgeting exercise for your students. Budgeting is straight –forward: a project manager (teacher) must have a kill to calculate all the costs associated with the

project and ensure that sufficient funds are available, identifying the source of funds, as well as the risk factors associated with going over budget.

2.6 Theoretical Framework

2.6.1 Origins of School-Based Assessment

Competence based curriculum is a functional approach to education as it emphasizes life skills and evaluates mastery on skills, necessary for any individual to function proficiently in a given society (Savage, 1993). Mosha (2012) noted that a competence-based curriculum seeks to develop in learners the ability to know, to learn and learn how to learn, to do things, and to learn and work with other people. Such a shift has pedagogical implications according to Rutayuga (2010) that, competence-based curriculum requires a shift from assessing a set of learning content to assessing each learning outcome. Wood(2001) again insists that, the move towards competence based rather than content-based curriculum necessitates student centred teaching and learning

An analysis of the theoretical underpinnings of School Based Assessment brings to light two kinds of bases: broad *influences* and specific *contributions*. The theoretical influences serve to contextualise and coordinate the theoretical contributions, while the contributions themselves are the actual techniques, principles and rules that govern the practice of the professionals who organise and implement School Based Assessment. The two key theoretical influences on the development of School Based Assessment are behavioural psychology and systems theory. In the case of the theoretical contributions, they have been categorised according to the aspects of School Based Assessment to which they contribute: the objectives, the learning process orthe assessment.

2.6.2 Influences on School Based Assessment

The significance of both behavioural psychology and systems theory for the development of School Based Assessment is explicitly acknowledged by researchers but can also be traced in the specifications for the 1968Comprehensive Elementary Teacher Education Models program that was so important for the evolution of School Based Assessment. Assessment should be viewed as a tool to measure the effectiveness of teaching and learning process and should not be interpreted as the objective of student's learning experiences (Yong & Lim, 2008). It should serve as a mean to attain educational goals and it is the ideal assessment system to relieve students' pressure while at the same time allowing teacher initiative in assessing their students (Brown, 2001). To promote the benefits of the assessment, teachers are expected to be involved in four phases of the assessment process: a) planning, b) gathering evidence, c) interpreting evidence, and d) using the results for decision making. The benefits of SBA in teaching a language subject such as English, includes providing stable and continuous pressure-free assessment, reducing the reliance on standardized examination, improving test item reliability, reflecting students' ability, promoting leisure reading, fostering teaching, enforcing independent learning, facilitating learning autonomy and empowering teachers in the evaluation process. Another important benefit of SBA based on the researchers teaching experience is that students themselves are evaluated based on school standards and school information, not on statewide or nationwide information. Students are not compared to students in other locations when school-based evaluation is used. Because SBA is completely educator written and can create evaluations based on their own students' accomplishments, it clearly shows what students have learned during a specific

grading period or school year; unlike standardized tests, which are researched and written by the state or by teachers in another school (Manso, HeeLeng, Sattar Amnah & Yusoff, 2013).

In the case of Ghana, students are given end of term and final exams as in the case of BECE for Junior High Schools. These tests assume that all schools study the same material covering similar topics. While this should be true, the fact is that some schools do not get to cover every topic due to unexpected situations or students' inability to complete a study in a particular area. School-based evaluations can be tailor made to include only what has been accomplished by the students and the scores will reflect what the students have actually learned, instead of what they were supposed to be learning. All of the above suggest that the change in the assessment system has further lead to a paradigm change in the teaching and learning processes of all primary and JHS schools that deserve the attention of academicians, educators and researchers, including stakeholders. Therefore, the role of teachers in this new assessment system is vital; teachers have to have a variety of teaching approaches and assessment techniques that have a direct impact on the assessment outcomes (Chan, Sidhu, & Yunus, 2006).

2.6.3Contributions to School Based Assessment

One of the most distinctive characteristics of School Based Assessment is the emphasis placed on the identification and expression of learning objectives, an emphasis reflected in the 'competency' within the title of the movement. SBA is premised upon the notion that regular, classroom-based assessment provides a reliable indicator of student learning, while also contributing feedback for future learning (Brown & Hirschfeld, 2008). Hargreaves (2011) argues that a learner finds feedback to be effective when it is not

hurtful, or critical of a person's character; when it is fair; and when it is clear that the intention is to help the learner.

Such insights serve to remind us that students' opinions are significant, as their perceptions of and responses to feedback are determinant factors of success in learning (Stiggins, 2007). In the Hong Kong context, the ascribed importance of assessment in English Language means that student voices are particularly worthy of attention. A study on students 'perspectives of SBA in Hong Kong by Gao (2009, 116) showed that many students in one school held a positive outlook on the initiative, finding their participation in oral discussions to be "active and relaxed", allowing them to demonstrate their actual abilities better. Yet there were diverse student views on the contribution of SBA and its associated feedback to improved learning. Some students thought it was highly beneficial while others complained that the feedback from their teacher was inadequate, although they agreed that good feedback was desirable

2.7 School Based Assessment Concept

Though not entirely new, School based Assessment has captured the attention of the higher education community and for good reason. However, there is no "one specific thing" called competency-based education. Further, related terms are used in different ways by different people, often causing confusion. This section of the study attempts to clarify the concept and will provide a helpful structure for further discussions about School based Assessment, especially for those new to the conversation. Below present the most used terms of the concept for which this study has used most extensively also.

2.7.1 Project (School) Based Assessments (SBA)

Project based assessments are assignments that involve students in real-world experiences (or simulations of) in settings such as companies, not-for-profits, and community-based organizations. As such, the assessment of project-based assignments typically addresses competencies such as analytic thinking, quantitative reasoning, and teamwork skills, as well as disciplinary content.

2.7.2 Performance Assessment

Performance Assessment describes assignments such as presentations, papers, projects, etc. that require instructor judgment (with or without a rubric) on the competency levels demonstrated by a student. The instructor applies the grading process to each student submission.

2.7.3 Objective Assessment

Objective assessment describes tests (typically timed) of student competencies in a format of pre-determined right-and-wrong answer options. These tests can include multiple choice, yes/no, true/false, matching, fill-in-the-blank, etc. The instructor or technology methods evaluate correct/incorrect responses once and apply the answer key to all student submissions. Objective assessment is one strategy used in competency-based education models to reduce costs.

2.7.4 Summative Assessment

Summative assessment is judgmental in nature and refers to the use of assessment results by instructors or coaches to determine whether and how well a student achieved a learning objective or competency. In the context of program assessment, assessment

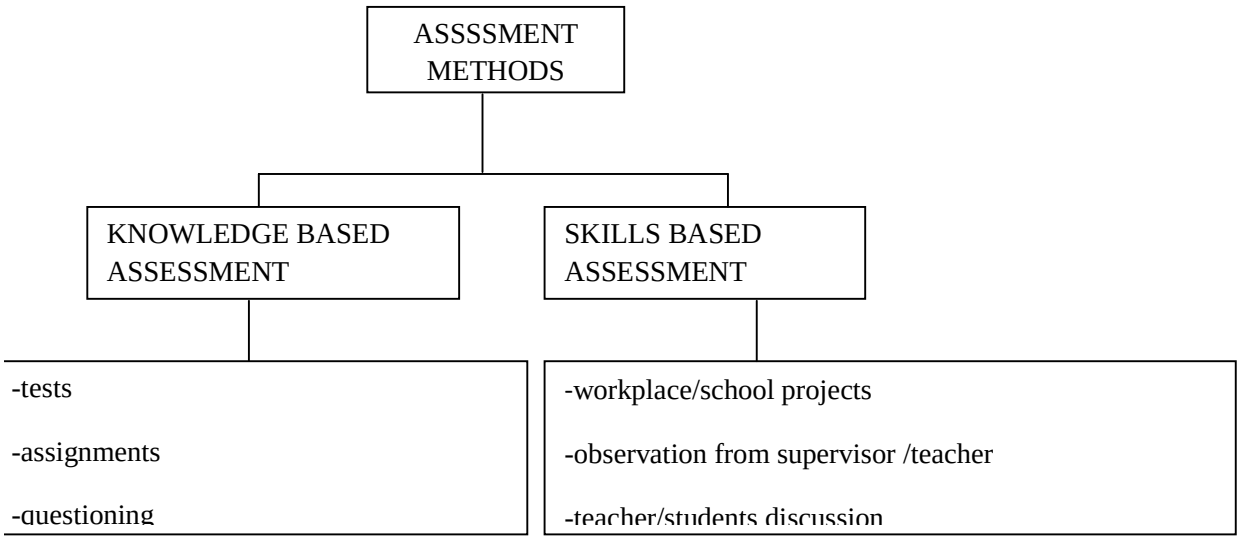
results are used to determine the extent to which the program goals were achieved. Another definition for summative Assessment is, assessment occurring at the end of a defined milestone of an activity.

2.8Conceptual Framework

School-based Assessment education is not new; the approach has been developed in the field of vocational training in the late 1970s. The use of project-based assessment techniques has continued to grow within education curriculums as resources and concepts beyond traditional testing applications have evolved. There can be extensive value to the student's overall learning process with the addition of project-based learning to supplement standard curriculum material. Often the project-based component of a lesson plans can help to make the concepts relatable for students.

Assignments that compile into a project-based assessment are also a technique option for educators looking to review the ability of students to be creative, diverse and authentic with their course work and the experience gained throughout the time frame of the class. Learning is guided by much more than study skills and the completion of worksheets and lesson plans. The ability of teachers to apply additional assessment techniques to determine the level of understanding of a topic can be highly beneficial to the overall development of a student

2.8.1 Model for Skill-Based Assessment



Source: Health Link Services (UK), 2010

The study adopted the model developed by the Health Link Services (UK) for assessing apprentices in the case of this study students understanding. The first model is knowledge-based assessment, mainly assessing understanding and knowledge of the students based on formal class room lessons provided. The diagram above shows the tools that will be implemented to achieve these assessment goals. The second method is skills-based assessment, and this purely will be carried out in the working environments of the students. Teachers and students will work collaboratively to ensure the stated assessments are completed during the course of the project duration

According to the National Research Council (2001) students intellectual development relies on several strategies and sources: observations, conversations, journal assignments, student work, and a final presentation. These opportunities are part of the natural flow of classroom life, indistinguishable for her and for the students from collecting data, discussing findings, planning next steps, drawing conclusions, and communicating findings about the main

concepts they are expected to learn. The technique for constructing a school-based assessment program involves backwards planning and asks the question, what do students' need to learn to become successful adults. The question is answered by convening meetings of those from the fields of business, politics, social, cultural and environmental sectors to define the criteria for success. These become external standards for success. Educators then take this information and convert it to learning outcomes or specific statements of behavior that students must perform that demonstrate learning which becomes the educational standards as well as defining when these standards should be mastered from kindergarten through junior high level.

With the creation of minimum performance standards, that is, standards that indicate the lowest level of performance acceptable, it is then possible to create a curriculum and the means to **assess** student performance related to the curriculum. Curriculum is defined in various ways. Some define it as the planned subject matter content and skills to be presented to students. Others say that the curriculum is only that which students actually learn. Still others hold the very broad definition that the curriculum is all experiences students encounter in school, learned or unlearned and out of school, taught and untaught.

The minimum standards also provide a framework for creating assessments. Assessment is much broader than testing. Whereas multiple choice tests, true/false, matching and other types of test items may be useful in measuring lower order learning, knowledge and some skills, other types of assessments such as report writing, presentations, debates, group problem solving are useful in determining higher order learning which demonstrates that students know when and how to use knowledge and skills in critical and creative ways to solve problems. What is key here is that assessments are aligned with the curriculum which,

in turn, is aligned to the standards, and that they measure learning in terms of how students perform using, as much as possible, a real-world situation as possible. This approach is referred to as contextual learning in Indonesia and elsewhere.

To ensure that curriculum and assessment are implemented properly, educators must consider developing appropriate instructional materials to support learning activities including textbooks, workbooks, charts, three-dimensional models, simulations, puzzles, games, and many other items. In addition, teachers will need to be trained in how to use the new materials since the methodology of competency-based curriculum requires shifting from teacher-centered to student-centered approaches.

Thus, professional development is a key component in achieving successful implementation. Once all components are completed, the program can be rolled out. If a national program, the rollout needs to be phased since there will not be enough trainers and resources to conduct a rollout nationwide. Also, as a new program, the first phase of the rollout should be a pilot program so the new materials can be tested and modified before final adoption is instituted. Professional development is systemic to the process so that educators can continuously improve in how they implement a quality educational system.

To determine effectiveness and to ensure that the rollout is being implemented properly, an M&E system is needed. Over time, the M&E system is used to provide feedback to different parts of the system so that adjustments can be made, whether changing standards and tests, or revising training modules.

2.8.2 Scoring School Based Project

Literature sheds light that one core reason teachers hesitate to use alternative assessment is because they provide little information in a numerical way. However, Herrera, Murry

& Cabral (2007) asserted that, if teachers become aware of the many ways that Project Based assessment makes it possible to quantify or measure the information, this concern can be alleviated. Some ways to achieve this numerical representation are using rubrics, checklists, and questionnaires. Wiggins and McTighe (2007) define a rubric as a "criterion-based evaluation tool, consisting of a fixed measurement scale (such as four score points) as used in this study for the analysis and descriptions of the characteristics for each score point". Rubrics are used to engage students in the details of their own learning. Rubrics can be adapted based on grades of students, starting with picture style in pre-school and progressing to more structured forms in upper levels.

2.9 Blooms Taxonomy of Planning

There are three main domains of learning and all teachers should know about them and use them to construct lessons. These domains are cognitive (thinking), affective (emotion/feeling), and psychomotor (physical/kinesthetic).

The domains of learning were first developed and described between 1956-1972. The ones discussed here are usually attributed to their primary author, even though the actual development may have had more authors. Major works in this area is usually attributed to Benjamin Bloom. While Bloom was involved in describing both the cognitive and the affective domains, he appeared as first author on the cognitive domain. When publishing the description of the affective domain in 1964, Krathwohl was named as first author, but Bloom also worked on developing this work.

2.9.1Criticisms of Blooms Taxonomy

According to Morshead (1965) that in the publication of the second volume, the classification was not a properly constructed taxonomy, as it lacked a systemic rationale of construction. This was subsequently acknowledged in the discussion of the original taxonomy in its 2000 revision, (Anderson, Lorin W.; Krathwohl, *David R.*, 2001)and the taxonomy was re-established on more systematic lines. It is generally considered that the role the taxonomy played in systematising a field was more important than any perceived lack of rigour in its construction.

Some critiques of the taxonomy's cognitive domain admit the existence of these six categories but question the existence of a sequential, hierarchical link (Paul, R. 1993*).* Often, educators view the taxonomy as a hierarchy and may mistakenly dismiss the lowest levels as unworthy of teaching (Flannery, Maura C. 2007 &Lawler, Susan 2016*).* The learning of the lower levels enables the building of skills in the higher levels of the taxonomy, and in some fields, the most important skills are in the lower levels (such as identification of species of plants and animals in the field of natural history) (Flannery, Maura C. 2007 &Lawler, Susan 2016). Some consider the three lowest levels as hierarchically ordered, but the three higher levels as parallel(Anderson, Lorin W.; Krathwohl, David R., 2001). Others say that it is sometimes better to move to Application before introducing concepts; the idea is to create a learning environment where the real-world context comes first and the theory second to promote the student's grasp of the phenomenon, concept or event.

Furthermore, the distinction between the categories can be seen as artificial since any given cognitive task may entail a number of processes. It could even be argued that any attempt to nicely categorize cognitive processes into clean, cut-and-dried classifications undermines the holistic, highly connective and interrelated nature of cognition (Fadul, J. A. 2009). This is a criticism that can be directed at taxonomies of mental processes in general.

2.9.2 Implications of Blooms Taxonomy to Skills Learning

Bloom's taxonomy serves as the backbone of many teaching philosophies, in particular, those that lean more towards skills rather than content (Krathwohl, 2002 & Anderson & Krathwohl, 2001).These educators view content as a vessel for teaching skills. The emphasis on higher-order thinking inherent in such philosophies is based on the top levels of the taxonomy including analysis, evaluation, synthesis and creation. Bloom's taxonomy can be used as a teaching tool to help balance assessment and evaluative questions in class, assignments and texts to ensure all orders of thinking are exercised in students' learning, including aspects of information searching (Jansen, Booth & Smith, 2009).

2.10 Meaning of Participatory Action Research (PAR)

Participatory action research is an approach to enquiry which has been used since 1940s.The origins of PAR can be traced to the work of Kurt Lewin (1944), who is considered the founder of action research (Gillis & Jackson, 2002). Lewin, a Prussian psychologist and a Jewish refugee from Nazi Germany, embodied the philosophy “that people would be more motivated about their work if they were involved in the decision-

making about how the workplace was run" (McNiff & Whitehead, 2006, p.36). Participatory action research has been defined as "a philosophical approach to research that recognizes the need for persons being studied to participate in the design and conduct of all phases (e.g., design, execution, and dissemination) of any research that affects them" (Vollman, Anderson & McFarlane, 2004, p.129). According to Vollman et al. (2004), the purpose of PAR is to foster capacity, community development, empowerment, access, social justice, and participation.

2.11 Relevance of Participatory Action Research to the Study

Participatory action research (PAR) is considered a subset of action research, which is the "systematic collection and analysis of data for the purpose of taking action and making change" by generating practical knowledge (Gillis & Jackson, 2002, p.264). Action research discourse includes myriad terms, such as: participatory action research, participatory research, community-based participatory research, and other forms of participative inquiry, which may seem ambiguous for researchers intending to conduct action research (Greenwood & Levin, 1998; Gibson, Gibson & MacAulay, 2001). Ideally, the purpose of all action research is to impart social change, with a specific action (or actions) as the ultimate goal (Kach & Kralik, 2002; McNiff & Whitehead, 2006).

The researcher has adopted Participatory Action Research because participants of this study were not just subjects but active contributors to the outcomes and success of the study. Again, improving new knowledge and skills in the area of School Based Assessment Project will assist in the promotion of greater benefit to teachers and students in the entire education process.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter comprised the methodology that is adopted for this study. Research Methodology is an essential component of any study and provides the framework upon which the whole research process is conducted. Therefore, it is important that the methodology is good to produce efficient and accurate results in order to achieve the research objectives.

3.1 Profile of the Study Area

Zanteli is a village under Gushegu District and it is about six kilometres away from the District capital. It is located on the Eastern Corridor Gushegu -Bawku high way. Zanteli has two schools; primary and junior high schools and it is also a circuit centre which serves as an educational hub for surrounding communities. The circuit has only one junior high school which was established in 2015 and has an enrolment of 41 pupils, 22 girls and 19 boys. The school has six teachers, five males and one female including the head teacher as its staff. The primary has an enrolment of 120 pupils, 65 being girls and 55 being boys and has six teachers as its staff, comprising one female and the rest being males. Gushegu is the third largest District in Northern region which shares boundaries with Karaga District to the west, Mion District to the south, Saboba and Cheriponi Districts to the east and East Mampurisi to the north. The District is one of the deprived Districts in northern Ghana where professional teachers do not easily accept postings to and has led to majority of teachers in the District being untrained.

3.2 Research Design

The researcher adopted a participatory action research design. Reason and Bradbury (2001) cited in Ozanne & Saatcioglu, 2008, p. 424) described participatory action research is as "a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes." The participants identified their own problem and democratically put their views and actions together in order to solve their problem. The major objective of the researcher was to improve the knowledge and skills of teachers in project based assessment. Using this approach enabled the researcher to work together with colleague teachers to improve their project assessment skills through participants sharing knowledge, experiences and working as a team to improve their skills. A school-based workshop was conducted among teachers in the Zanteli JHS and Primary schools in the Gushegu District of the Northern Region of Ghana.

During the presentation, participants were allowed to share views, made comments and critiques to reflect on the objectives of this project. This helped them further understand their problem and put all their ideas together to solve their challenges in terms of School Based Assessment Projects. According to Denscombe (2014, p. 126), action research should not only be used to gain a better understanding of the problem which arises in everyday life practice, but actually set out to alter things which are part and parcel of research process.

The study adopted the qualitative research approaches to collecting data. Qualitative approach was used by the researcher because it focuses on a specific situation and a detailed data description of the phenomenon which is the object of study in order to account for a better understanding.

The researcher considered the study as a fieldwork research in which direct observation of the events in their natural succession was done (a questionnaire was presented to the teachers before and after the workshop).

3.3 Population

Population for this study included all school teachers in Zanteli Junior High School and Primary school teachers (from primary 2 class teachers to primary six). In all, Zanteli schools have 12 teachers in both the Junior High and Primary Schools. Out of this number, only 2were females and the rest being males. Ten (10) of the teachers were professionals and two (2) being service personnel. According to Ary, Jacobs and Rezavieh (2002), population refers to the entire group of individuals to whom the findings of a study apply. It is the group the researcher wishes to explore about. In this study, the primary aim was to explore the level of project skills of teachers and how it can be improved.

3.4 Sample and Sampling Techniques

The study has selected ten (10) teachers in Zanteli schools as units of investigation for analysis. The sample used was chosen through purposive sampling procedure made up of 5 teachers from Zanteli Primary (class 2 to class five) and another 5 teachers from the Zanteli Junior High School (JHS). Two of the teachers were females. The researcher was interested in teachers handling core subjects and has projects part of its syllabus. Majority of the respondents (6) were diploma holders whiles 4 were degree holders and all were professional teachers.

3.5 Data Type and Source

The source of the data is both primary and secondary and collected through focus group discussion, questionnaires, semi-structured interviews and document analysis. Two separate questionnaires of open ended questions were made for the teachers and the trainers. The questionnaires were distributed among 8 teachers from the Zanteli JHS and Primary schools as well as two trainers. Following the survey, semi-structured interviews were taken with four of the teachers. The interview served the purpose of exploring further the teachers' opinion and the current situation of School Based Assessment.

3.6 Data Collection Instruments

According to Salkind (2010) data collection instruments refer to the tools or means by which a researcher attempts to measure variables or items of interest in the data-collection process. It is related not only to instrument design, selection, construction and measurement, but also the conditions under which the designated instruments are administered. The instrument used was the Teacher School-Based Assessment Questionnaire developed by the researcher. Questionnaire as an instrument containing questions and other type of items such as statement designed to solicit information on specific issues, themes, problems or opinion to be investigated (Babbie, 2005) allowed the researcher to gather respondents level of skills on School Based Assessment pre and post intervention. In designing a questionnaire, researchers consider the working sample unit level of understanding of the research issue before settling on either open-ended question or close ended question (Smith 1975). With open-ended question, the respondent is given the will to respond relatively on unrestricted manner. Close-ended questions on the other hand restrict the choice of response by forcing respondent to

answer by presenting categories or alternatives (Smith, 1975). Cannel et al (1968) noted that in situations where the study demands for knowledge of respondent level of information, open-ended questions are useful. The questionnaire was designed in an open-minded form to illicit more information. The questionnaire items were grouped into three sections, A, B, C and D. Section A contains items on demographic information such as name of school, sex and years of teaching experience. Section B contained the items on skills of planning and conducting School Based Assessment, Section C deals with skills required in scoring, analyzing and reporting School Based Assessment among teachers whiles Section D considered the challenges involved in School Based Project Assessment implementation.

3.7 Pre-Intervention Data Collection Procedure

The study adopted the focus group discussion method of data collection. This allows the researcher to have face to face interaction with respondents. In a very informal setting they were asked to answer the questions on various aspects of School Based Assessment. The opinions were interpreted without changing their original theme and some others are quoted as they are. Information was also collected from recent articles, syllabus, curriculum documents and government reports. Below are the summaries of the steps taken to collect the data used for the study.

3.7.1 Situational Analysis (pre-intervention)

To ascertain the current situation of school-based project skills of teachers in Zanteli, the respondents were randomly selected and pre-interviewed with the help of a check list or interview guide. These pre-informed the researcher about the possible areas of project skills that teachers needed, their level of skills and the strategies to improve these skills.

3.7.2 Intervention Procedure

Two School Based Assessment Trainers from the District Education Service (GES) were consulted to take the teachers through the skills of undertaking assessment of students using the School Based Assessment guide. This was done in the Zanteli Junior High School for the 8 teachers and two collogues who assisted in administering the questionnaire. As an action research this was done in a confined place to facilitate discussion among the participants which lasted for about three hours (3.00hrs). This was done in sessions of three covering all the specific research objectives raised by the researcher. Each session was 1 hour, 45 minutes for presentation and 15 minutes for questions and answers, as well as contributions from participants. Fifteen (15) minutes were also allowed for break and for the researcher to administer impact questionnaires at the end of every session. Presentation was delivered on School Based Assessment Planning Skills during the first session, skills of reporting and scoring during the second session and the final session on skills of analysing as well as the challenges of School Based Assessment.

3.7.3 Post Intervention Data Collection Procedure

After the training both the trainers and the research respondents were given a post intervention questionnaire covering the research objectives. This facilitated the measurement by the researcher, the outcomes of the intervention and the way forward for School Based Assessment in Zanteli Schools and other schools in the District. The trainers and some respondents were also interviewed on the challenges of School Based Assessment implementation in schools.

3.8 Data Analysis Tools for Post Intervention Data

It is worth stating that descriptive statistics was used in analysing the data, based on the objectives of the study. In this study, data was organised using simply tables and explained using percentages as stated by Bogdan and Biklen (1982) that, data analysis involves the process of "working with data, organising it, breaking it into manageable units, synthesising it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others. The data were analysed using descriptive statistics using the Statistical Package for the Social Sciences (SPSS) software Version 20.0 to calculate measures of central tendency (mean and mode) and dispersion (standard deviation), frequencies and percentages. The means and standard deviations, and frequencies and percentages of the variables were presented in tables and reported in Chapter 4. The mode, frequencies and percentages of the categories on the Likert scale were also presented.

The determination of level of knowledge/skills on an item was measured using mean of the coded categories on the Likert scales used for the study as cut-off points. For instance, in the 4-point Likert scale, a mean score of 2.5 was used as a cut-off point to re-code the literacy level into high, moderate or low. As a rule, if the mean score is in the range 2.0 and2.5, the knowledge level is moderate. If the mean score is greater than 2.5, the knowledge level is high while a mean score less than 2.0 indicate that the literacy level is low. The declarative statements under assessment knowledge construct were coded with Yes (1) and No (2).

3.9 Data Quality and Ethical Issues

The themes emerged from an examination of the data. All the sources of information i.e. the answers to interview survey, the transcripts of the semi-structured interview and the documents were repeatedly read through. The researcher obtained a letter of permission from the schools that were selected for this study and committed to ensure anonymity of the respondents. Again, a letter was granted by the University Development Studies (UDS) ethical committee to ensure that ethical standards in research are complied with.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter of the study deals with data analysis and presentation of the key variables mentioned in the research objectives. The findings have been summarised under two main categories i.e. present situation of project-based skills and challenges towards the implementation of project-based assessment in Zanteli Schools.

4.1 Demographic Characteristics of Respondents

The demographic and general questions about Project Assessment and contextual framework within which to better understand the study of the research questions determines to the large extent the expectations of the research findings. These questions describe the background and experience of the teachers responding to the questions and their general feelings about project-based skills. The total number of respondents who took part in the study was ten (10). A summary of the representation of gender is shown in Figure 4.1.

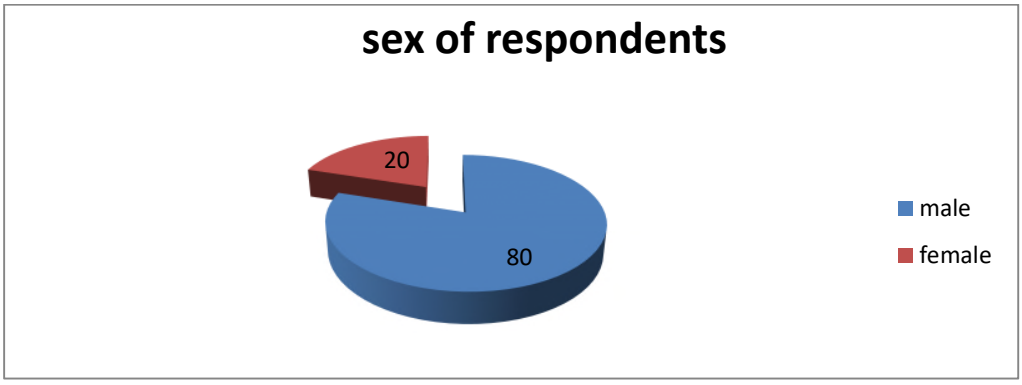


Figure 4.1: Sex of Respondents

Source: Field Survey, 2017

From Fig 4.1 8 representing 80% of the respondents were males and the remaining 20% were females. This indicates that much of the views expressed in the study largely came from males. The researcher had wanted to get a fair representation of gender in the study but was constrained as there were only two (2) female teachers of which two were National Service Personnel in the schools. Again, the respondents were asked about their experience in teaching. As indicated in chapter three of the study, the researcher sought to deal with the more experience teachers in the schools. Table 4.1 shows the detailed experience level of respondents.

Table 4.1: Experience and Education Level of Respondents

Years' Experience	Number of responses	Percentage
1-5	3	30
6-10	4	40
11-15	2	20
16-20	1	10
TOTAL	10	100
LEVEL OF EDUCATION		
Diploma	6	60
University degree	4	40
TOTAL	10	100

Source: Field Survey, 2017

The Table 4.1 represents the years' experience, the number of responses and the percentage of responses. The results are presented with these categories to demonstrate the range of years' experience represented by those responding to the questionnaire. Most of the teachers responding to the questionnaire have been teaching for 6-10 years (40%), yet this response category was just slightly higher than the 1-5 years of teaching range (30%) and this range was only slightly higher than the 11-15 years of experience range (20%). From the responses, only 10% of the teachers had experience range of 16-20 years. In all, the greatest difference of years' experience occupied the extreme ends of the response options, either teachers just starting their careers or the most veteran teachers with 20 or more years' experience. Again, the data revealed that all the respondents are

professional teachers and 60% of them being Diploma holders' whiles 40% are university degree holders.

4.1.1 Subjects Taught by Respondents

The study also collected data on the subjects the respondents teach in their various schools. All core subjects (Science, Social Studies, Information Communication Technology, Mathematics and English Language) were listed. Table 4.2 represents the disbursement of subjects taught by the respondents.

Table 4.2: Subjects Taught by Respondents

Subjects	Number of responses	Percentage
Science	2	20
Social Studies	2	20
ICT	1	10
Mathematics	3	30
English Language	2	20
TOTAL	10	100

Source: Field Survey, 2017

From the Table 4.2 20% of the respondents each teach Science, Social Studies as well as English Language, 10% teach ICT and greater number (30%) being Mathematics teachers. In order to understand the range of subjects taught by the respondents, all other subjects deviate by no more than 1 respondent.

4.2 Discussion of Pre and Post Intervention Results

School Based Assessment projects have been part of Ghana's educational curriculum for years but less practiced by teachers in various schools. The researcher carried out intervention workshop that was intended to increase participants' knowledge and skills on certain key areas of School Based Assessment projects. This was done to ensure an increased in knowledge of the respondents on issues they had limited knowledge as shown by the results of the pre-intervention. The researcher examined the respondents' knowledge and skills on certain key components of conducting School Based Assessment Projects in their various schools and subject areas as follows;

4.2.1What are the Teachers' Pre and Post Intervention Knowledge/Skills on Planning School Based Assessment Projects in Zanteli Schools?

In other to answer this research question, the researcher assessed the planning skills of teachers through a questionnaire to determine the current situation of skills that teachers possess in planning School Based Assessment Projects. It was revealed that teachers had limited skills in planning many areas of School Based Project Assessments as shown in Table 4.3. The researcher took respondents through five(5) key dimensional areas in School Based Assessment Planning including skills of planning General lesson objectives, Specific Objectives, Bloom's Taxonomy of planning Lesson plans, developing table of specifications as well as outlining instructional and content list for test. The post intervention results on skills improvement are presented below;

Respondents showed sufficient knowledge in writing both the general and specific objectives for their lesson plans before the intervention as well as post intervention. Table 4.3 is the summary:

Table 4.3: Skills of Planning General Objectives

Writing general objective for lesson plan	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	0	0	0	0
Limited	0	0	0	0
Sufficient	5	50	1	10
very sufficient	5	50	9	90
TOTAL	10	100	10	100

Source: Field Survey, 2017

From the Table 4.3, 50% of the respondents demonstrated sufficient knowledge of writing general objective for lesson plans whiles another 50% said they had very sufficient knowledge before the intervention and had increased to 90% after the intervention. This is in line with the findings of Chan & Gurnam (2015) where respondents did not have problems in writing general objectives for their lesson plans with a mean score of 3.33 in a likert scale of 5 points. The assessment section should be connected to the lesson plan as well as the overall objective. Teachers as a routine requirement often prepare lesson plans for their lessons except that projects plans are not incorporated. The intervention training focused on integrating project into their usual plans which facilitated greater improvement.

4.2.1a Skills of Planning School Based Assessment Specific Objective Lesson Plans

Similarly, respondents demonstrated to have sufficient knowledge in the preparation of specific objective lesson plans as demonstrated in table 4.4 below;

Table 4.4: Skills of Planning Specific Objectives

Writing specific objective for lesson plan	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	0	0	0	0
Limited	0	0	0	0
Sufficient	6	60	4	40
very sufficient	4	40	6	60
TOTAL	10	100	10	100

Source: Field Survey, 2017

Table 4.4 indicated that 40% of the respondents said they have very sufficient knowledge in writing specific objective for lesson plans before the intervention. The score however increased considerably to 60% after the intervention. These findings are supported by Chan & Gurnam (2015) where the mean score for specific lesson plan preparation by the respondents was 3.32 indicating sufficient knowledge of respondents.

4.2.1b Application of Knowledge of Bloom's Taxonomy in Lesson Planning

On the issue of School Based Assessment project planning regarding learning, respondents showed limited knowledge on some aspects of the planning process before the training intervention but has substantially acquired more skills in planning after the workshop. The Table 4.5 provides detailed summary;

Table 4.5: Knowledge of Bloom's Taxonomy of Planning School Based Assessment Projects

taxonomy of education objective: cognitive	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	9	90	0	0
Limited	1	10	0	0
Sufficient	0	0	2	10
very sufficient	0	0	8	80
TOTAL				

Source: Field Survey, 2017

Teachers were expected to be more knowledgeable in building the cognitive mentality of students as exhibited in the nature of lesson plans prepared. But the data revealed that a lot of teachers, as high as 90%, had very limited knowledge in preparing lesson plans cognitively with only 10% having limited knowledge. Lessons plans are supposed to generate certain ability in students' which teachers must fine tune their projects to achieve. Post intervention results however showed an improvement in the skills of teachers to higher percentage of 80% sufficiency in skills. Teachers through the intervention were equipped to be able to help students recognized and recall specific facts, procedural patterns and concepts that serve in the development of intellectual abilities and skills through proper lesson plans (Bloom, 1956).

With regards to Taxonomy of educational objective, (affective) over 60% of the respondents had limited knowledge whiles 20% demonstrated sufficient knowledge

before the intervention. This is however contrary to the findings of Chan &Gurnam (2015) in their assessment of teachers' knowledge in School Based Assessment planning in the Malaysian schools where a lot of teachers had sufficient knowledge in writing affective lesson plans.

Table 4.6: Skills on Taxonomy of educational objective: affective

Taxonomy of educational objective: affective	**Pre- intervention**		**Post intervention**	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	5	50	0	0
Limited	3	30	0	0
Sufficient	1	10	4	40
very sufficient	1	10	6	60
TOTAL	10	100	10	100

Source: Field Survey, 2017

From the Table 4.6, respondents after being taken through the dynamics and skills of preparing affective lesson plans as Bloom suggests, demonstrated sufficient acquired skills in developing the attitudes, feelings or self of learners. After the intervention 40% and 60% respectively demonstrated sufficient and very sufficient skills in dealing with feelings values, motivation, and attitudinal components of lesson plans.Psychomotor objectives are those specific to discreet physical functions, reflex actions and interpretive movements. Traditionally, these types of objectives are concerned with the physically encoding of information, with movement and/or with activities where the gross and fine

muscles are used for expressing or interpreting information or concepts. Basically, school projects are taught to be skill based for which students acquire practical experience with the topic of study.

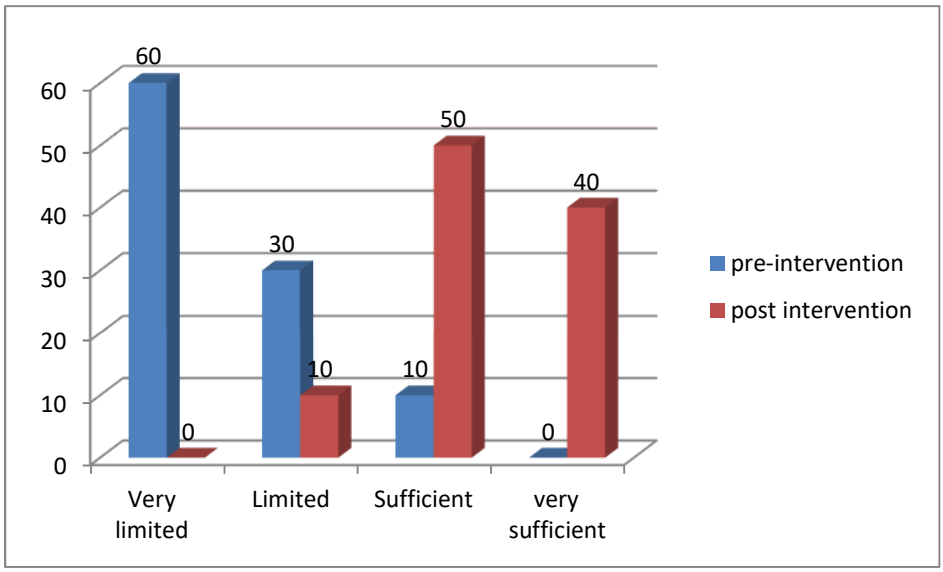


Figure 4.2: Skills on Taxonomy of educational objective: psychomotor

Source: Field Survey, 2017

From the figure 4.2 above, respondents had little knowledge in planning assessment project on the Taxonomy of educational objective before the intervention contrary to the findings of Chan & Gurnam (2015) where the knowledge of secondary school teachers were satisfactory with mean scores of knowledge in the cognitive (mean=2.79), affective (mean=2.73) and psychomotor (mean=2.76) in a four-point likert scale. After the intervention 40% of the respondents demonstrated very sufficient knowledge as against 0% in the pre-intervention, 50% demonstrated sufficient knowledge after the post intervention as against 10% before the intervention. However, only 10% of the respondents still demonstrated limited knowledge in preparing lesson plan covering the

psychomotor domain after the intervention. In all the study has improved the skills of teachers in general as none of the respondents indicated very limited knowledge after the intervention as against 60% prior to the intervention.

4.2.1c Developing Table of Specifications

To ensure that classroom tests measure a representative sample of instructionally relevant tasks; it is of utmost importance to develop specifications of test items and assessment tasks. The respondents again were asked of their skills in developing table of specifications for School Based Assessment. The Table 4.7 below shows their responses;

Table 4.7: Skills of Developing Table of Specifications

Developing table of specification for test	**Pre- intervention**		**Post intervention**	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	7	70	0	0
Limited	2	20	1	10
Sufficient	1	10	5	50
very sufficient	0	0	4	40
TOTAL	10	10	100	100

Source: Field Survey, 2017

Thus, the results showed that teachers were less knowledgeable with as much as 70% having very limited knowledge and 20% demonstrated limited knowledge in developing a table of specification under School Based Project Assessment planning before the intervention. The post intervention results however, showed an increased in skills to at least 90%. The findings of Chan & Gurnam (2015) study indicated that only 61.4%

teachers in Malaysian Secondary Schools developed table of specifications to identify both the content areas and the instructional objectives they wished to measure. A table of specifications is very important especially at the planning stage because it is like a plan for the preparation of a test paper Chan & Gurnam (2015).

4.2.1d Other Skills of Planning SBA Projects

With respect to outlining instructional content for the test, 70% of the respondents demonstrated limited knowledge whiles 60% of the respondents also said they have limited knowledge in listing instructional objectives for School Based Project Assessment test as against 100% improvement in skills prior to the post intervention. The findings however contradict with that of Chan & Gurnam (2015) which disclosed that the ESL teachers in Malaysia did not have problems in outlining instructional content (mean = 2.99,) and objectives for the test (mean = 2.98). Table 4.8 shows the results.

Table 4.8: Knowledge of Outlining SBA Instructional Content

Outlining instructional content for the test	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	3	30	0	0
Limited	4	40	0	0
Sufficient	2	20	8	80
very sufficient	1	10	2	20
TOTAL	10	100	10	100
Listing instructional objectives for the test				
Very limited	4	40	0	0
Limited	2	20	1	10
Sufficient	3	30	6	60
very sufficient	1	10	3	30
TOTAL	10	100	10	100

Source: Field Survey, 2017

It can be observed that, teachers' skills of planning lessons are much greater as this is a regular routine exercise, monitored by the Ghana Education Service. However, it is generally agreed that, a teacher who has taught a lesson very well but failed to assess learners is just like the one who has not taught anything at all (Amoah, 2012). A good teacher must assess pupils regularly and undertake proper evaluation of any lesson

delivered which the study revealed limited knowledge in executing before the intervention.

4.2.2 Research question two: What level of knowledge is exhibited by teachers in scoring, analyzing and reporting of School Based Project Assessment?

The study answered this question taking the respondents through the techniques of scoring analysing and reporting of School Based Project Assessments. The situational analysis of respondents' skills in these items as found by the researcher were very limited. However, teachers are often required to score, analyse and report the performances of students in all assessments. As one of the objectives for this study, the researcher assessed the knowledge of respondents in scoring, analysing and reporting of School Based Project Assessment in the schools under study in Zanteli and how these can be improved. Below are the findings of the researcher after the skills training organized for teachers in Zanteli.

4.2.2aTeachers Knowledge of Scoring School Based Project Assessment?

Assessments are often done in two forms in Ghanaian schools- multiple choice and essay questions. This study showed that, teachers had sufficient knowledge (100%) in scoring Multiple Choice Questions, sufficient knowledge (70%) in scoring essay questions before the intervention workshop. The Table 4.9 shows the results.

Table 4.9: knowledge of scoring Multiple Choice Questions

	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	0	0	0	0
Limited	0	0	0	0
Sufficient	1	10	0	0
very sufficient	9	90	10	100
TOTAL	10	100	100	100

Source: Field Survey, 2017

The results are again supported by Chan & Gurnam (2015) where a high percentage of 86.8% to 96.3% responses to the respective items revealed that they were aware of the good procedures in scoring and grading. From the data presented in table 4.9 above, respondents demonstrated greater skills in scoring multiple choice questions during the post intervention with 100% indicating very sufficient skills.

Table 4.10: Skills of Scoring Essays

	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	0	0	0	0
Limited	3	30	0	0
Sufficient	4	40	3	30
very sufficient	3	30	7	70
TOTAL	10	10	100	100

Source: Field Survey, 2017

From the table 4.10 above, 100% of the respondents had obtained skills in scoring essay questions after the intervention as against 70% sufficient knowledge before the intervention. This has shown an increase in the scoring skills of respondent from 70% to 100% indicating an improvement in skills of respondents' essays scoring.

4.2.2b Level of Skills of teachers on Analyzing Project Based Assessment

The mean and standard deviation scores have often been the standard and accurate measure of all forms of assessments. However, only few are conversant with its computations. The researcher therefore sought to ascertain the respondents' knowledge in these areas as demonstrated in the figure 4.3 below.

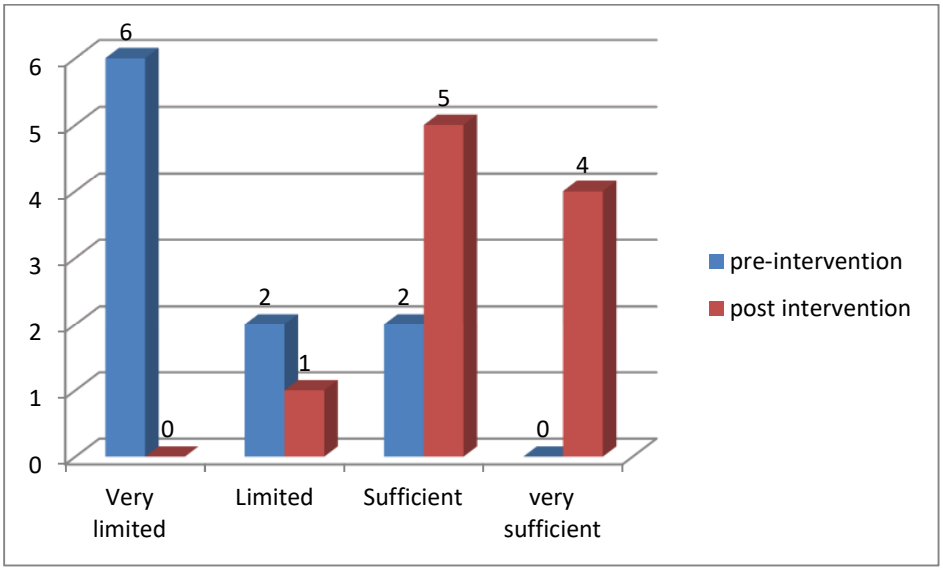


Figure 4.3: Respondents Knowledge on Analyzing Students Projects using Average Scores

Source: Field Survey, 2017

From the fig 4.3 above respondents however showed limited knowledge in items that relates to analysis of the score before the intervention. They rated their knowledge in calculating the mean score of students as limited (60%) before the intervention which had increased to 90% prior to intervention. this has also demonstrated an increased in skills of respondents in analysing the mean score of students' assessments.

Table 4.11: Skills of Calculating Standard Deviation

Calculating standard deviation	Pre- intervention		Post intervention	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	8	80	0	0
Limited	1	10	1	10
Sufficient	1	10	7	70
very sufficient	0	0	2	20
TOTAL	10	10	100	100

Source: Field Survey, 2017

With regards to analysing the variation of students' performance from the average score, 80% of the respondents had very limited knowledge and only 20% demonstrated limited knowledge. This means that teachers in Zanteli are not able to compute the margin by which students perform from the average mark obtained by students in their assessments or measure whether all their students follow their lessons thought or not. Improvements in skills were recorded after the intervention as demonstrated by 70% and 30% sufficient and very sufficient in skills respectively. This is supported by the work of Chan & Gurnam (2015) in their study of school-based assessment among teachers in Malaysia that; teachers had limited knowledge in analyzing the score of students. In their study respondents' knowledge in analyzing and interpreting the scores reflected that they were not familiar in calculating the mean (mean=2.42, SD=0.80), standard deviation (mean=2.31, SD=0.79) in a five-pointlikert scale.

4.2.2 Level of Skills of Teachers on Reporting School Based Project Assessment

For effective School Based Project Assessment implementation, teachers are supposed to guide students write reports either in the form of tables or graphs. However, the findings of this study revealed that 70% of the respondents had very limited knowledge in preparing School Based Project Assessment reports, 20% had limited knowledge while only 10% demonstrated sufficient knowledge before the intervention. The table 4.12 below shows the details of their response

Table 4.12: Skills of Reporting

Reporting score	**Pre- intervention**		**Post intervention**	
	Number of responses	Percentages (%)	Number of responses	Percentages (%)
Very limited	7	70	0	0
Limited	2	20	0	0
Sufficient	1	10	6	60
very sufficient	0	0	4	40
TOTAL	10	100	10	100

Source: Field Survey, 2017

From the table above, the post intervention result indicates an increased in skills of teachers in report writing by 100%. According to Jonassen (1988) feedback is an important aspect that assists learners in monitoring their understanding. Approximately

80% of the respondents admitted to using test scores for further enhancement of the teaching and learning process by reporting to students, parents and other stakeholders.

4.3**Research question three: What Challenges do teachers faced in School Based Assessment implementation?**

An interaction with the assessors and the respondents revealed several challenges that affects the successfully implementation of School Based Project Assessment in schools. The headteacher of Zanteli Primary, *"school-based assessment Projects are very good but seems very difficult for us because we deal with large class of sometimes more than 60 students in a class so how is this possible for teachers to assign students to perform project activities and how can a teacher review the projects and provide feedback for them as you have explained to us in this presentation"*. Some of the challenges revealed are discussed briefly below:

4.3.1 Limited Knowledge of Teachers on School Based Project Assessment Implementation

As shown from the discussions above, teachers possess little knowledge in School Based Assessment project planning, scoring, analyzing and reporting of School Based Project Assessment. A successful project must start from the project title. Project title refers to the name of the project. Before selecting the project title, the teacher must go through the syllabus looking through the sections and units to identify interesting ideas that may be developed into a project. The project title should capture important skills required in the sections and units of a term in the subject. Since the teachers showed lack of knowledge in these skills, greatly impact negatively in their ability to implement School Based Project Assessment programmes in their schools.

4.3.2 Resource Constraints

The majority of the teachers complained that they had inadequate teaching and learning materials. The difficulty with learning materials mainly affected the unavailability of appropriate teaching and learning materials in new curriculum. There was a complete lack of materials in some learning areas like Science and Mathematics. A Science teacher of Zanteli JHS also has this to say, *"the Zanteli JHS lacks teaching and learning materials (TLMs) especially for science. We have basically been using only drawings to make students understand some basic concepts which could have been illustrated properly by the use TLMs. So, if commitment is not coming from GES in this regard, schools alone will find it very difficult to implement as most of SBA Projects will need TLMs to be executed".* A successful implementation of projects requires that, the teacher takes students through project activities for several times which all requires the availability of resources.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This aspect of the study presents summary of findings of the research as well as conclusions and some recommendations.

5.1 Summary of Findings

Zanteli Primary and JHS teachers unanimously agreed that School Based Project Assessment enhanced the learning of pupils in schools. In Ghana, School Based Assessment Project ought to start from lower primary up-to the Junior High Schools. Teachers are also very aware that School Based Project Assessment like classroom assessment is an ongoing process. As such they felt learning is more meaningful to students as they can obtain immediate feedback on their performance.

The study in essence has increased the knowledge of respondents in all the areas that the researcher had intended to impact knowledge on. In terms of project planning, the study revealed that a lot of teachers as high as 90% had very limited knowledge in preparing cognitive lesson plans with only 10% having limited knowledge. Lessons plans are supposed to generate certain ability in students' which teachers must fine tune their projects to achieve. Post intervention results however showed a significant improvement in the skills of teachers to higher percentage of 80% sufficiency in skills level. With regards to Taxonomy of educational objective, (affective) and Taxonomy of educational objective (psychomotor) over 60% of the respondents had limited knowledge whiles 20%

demonstrated to have sufficient knowledge before the intervention. This again recorded sufficient skills improvement of 100% after the intervention.

With regards to scoring, analysing and reporting School Based Project Assessment, the study revealed that 70% of the respondents had very limited knowledge in preparing School Based Project Assessment reports, 80% of the respondents also had limited knowledge in presenting, analysing and interpreting the mean and standard deviations of Assessment Projects. There was however an improvement in teachers' skills in scoring, analysing and reporting of School Based Project Assessment to a substantial level after the action research. The study also revealed resource constraints and limited knowledge of teachers as the major challenges of successfully implementation of School Based Project Assessment in schools.

The study finally revealed that most teachers did not see the essence of School Based Project as its implementation may take quite a long time demanding more commitment from students and all stakeholders in the process.

5.2 Conclusion

School Based Project Assessment implementation requires that teachers show a high level of interest and commitment for its effective implementation in schools. Headmasters and head teachers should also take keen interest by monitoring subjects' teachers on topics that demands project execution.

Assessment for learning at least requires that teachers are made to understand the desirable relationship between learning and assessment as well as techniques for

achieving this. This means that assessment should be used to support and inform the teaching process by identifying the pupils' areas of weaknesses and strengths so that appropriate remedial interventions could be affected

Henceforth there is a need for the Ghana Education Service together with the education Ministry to ensure refresher courses and workshop that is gear towards rebuilding teachers' skills on implementing effective School Based Project Assessment.

5.3 Recommendations

Based on the findings of the study, the following recommendations were made.

Continuous in-service training should be organized for teachers and officials on the required knowledge and skills of School Based Project Assessment planning and reporting in all Districts of Ghana and the Northern Region in particular. This is necessary to address the skills gap of teachers on School Based Project planning exhibited by teachers.

School Based Project Assessment is not new in Ghana's educational curriculum but less practiced by teachers. There is therefore the need for the Headteachers assisted by Ghana Education Service to enforce its implementation by demanding from school authorities evidenced based reports on their implemented School Based Project Assessment at least once per term from each school. This will make sure that teachers integrate School Based Projects into their termly plans.

Again, the ministry of Education together with the Ghana Education Service (GES) should ensure that resources are provided to schools (both primary and Junior High School) purposely for School Based Project Assessment implementation. Award schemes can be instituted and tied with schools that develop the best project within the district.

Addressing the resource gap will also ensure successfully implementation of School Based Projects in our educational curriculum.

Review School Based Project Assessment to match formative assessment of students by teachers. Black and Wiliam's (1998) as found in William M. Kapambwe (2010) reviewed the use of formative assessment; which showed that it had a powerful impact on student performance. Research on the teachers' use of formative assessment in teaching has been undertaken in England, Scotland, Australia and New Zealand. In their extensive survey of research literature on assessment, Black and William (1998) as found in William M. Kapambwe (2010) had concluded that the development of formative assessment in the classroom could raise standards of achievement. This in essence will make school Based Projects more attractive, meaningful and beneficial to students

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APPENDIX 1

UNIVERSITY FOR DEVELOPMENT STUDIES

PRE-INTERVENTION TEACHER SCHOOL BASED ASSESSMENT QUESTINNAIRE ON IMPROVING THE PROJECT SKILLS OF ZANTELI TEACHERS ON SCHOOL BASED ASSESSMENT

This questionnaire attempts to improve the Knowledge and Project Skills on Conducting School Based Assessment of teachers in Zanteli. The challenges faced by teachers in conducting SBA, some recommended solutions to these challenges and the way forward. The research is being done in partial fulfillment for the award of an MA in Training and Development from the University for Development Studies (UDS). Hence your input to this study is highly substantial and the information given will only be use for academic purpose with full surety of confidentiality.

RESERACHER

ZAKARIA HAFIZU UDS/MTD/0090/15

DR HAJIA. ALIMATU C. ISSAKA (SUPERVISOR)

Respondent ID……

Date…….....

Questionnaire no.....

PRE-INTERVENTION QUESTIONNAIRE

A. Background Data

1. Name of school

2. Teaching Status (1) Professional (2) Non-Professional

3 Qualification (1) SSSCE (2) Diploma (3) Degree (4) Post Graduate degree

4. Number of years in service (in teaching) ……

5. Sex ( ) male ( ) female

6. Age……

7 Subject taught in class ……

SECTION B: SKILLS OF PLANNING SCHOOL BASED ASSESSMENT

Please **tick** where appropriate your skills level of these planning items

S/N	**PLANNING ITEMS**	**1**	**2**	**3**	**4**
8	Taxonomy of educational objective: cognitive				
9	Taxonomy of educational objective: affective				
10	Taxonomy of educational objective: psychomotor				
11	Writing general objective for lesson plan				
12	Writing specific objective for lesson plan				
13	Developing table of specification for test				
14	Outlining instructional content for the test				
15	Listing instructional objectives for the test				

Scale: 1 = very limited, 2 = limited, 3 = sufficient, 4 = very sufficient

SECTION C: KNOWLEDGE IN SCORING, ANALYZING AND REPORTING SBA PROJECTS

Please tick the box that applies relating to your skills in Scoring, analyzing and reporting SBA in your school.

Scale: 1 = very limited, 2 = limited, 3 = sufficient, 4 = very sufficient

S/N		1	2	3	4
16	Scoring the MCQ				
17	Scoring essay questions				
18	Calculating mean				
19	Calculating standard deviation				
20	Reporting score				

APPENDIX 2

UNIVERSITY FOR DEVELOPMENT STUDIES

POST-INTERVENTION TEACHER SCHOOL BASED ASSESSMENT QUESTINNAIRE ON IMPROVING THE PROJECT SKILLS OF ZANTELI TEACHERS ON SCHOOL BASED ASSESSMENT

This questionnaire attempts to improve the Knowledge and Project Skills on Conducting School Based Assessment of teachers in Zanteli primary and JHS. The challenges faced by teachers in conducting SBA, some recommended solutions to these challenges and the way forward.

The research is being done in partial fulfillment for the award of an MA in Training and Development from the University for Development Studies (UDS). Hence your input to this study is highly substantial and the information given will only be use for academic purpose with full surety of confidentiality.

RESERACHER

ZAKARIA HAFIZU UDS/MTD/0090/15

DR HAJIA. ALIMATU C. ISSAKA (SUPERVISOR)

Respondent ID……

Date…….....

Questionnaire no.....

POST-INTERVENTION QUESTIONNAIRE

A. Background Data

1. Name of school

2. Teaching Status (1) Professional (2) Non-Professional

3 Qualification (1) SSSCE (2) Diploma (3) Degree (4) Post Graduate degree

4. Number of years in service (in teaching) ……

5. Sex ( ) male ( ) female

6. Age……

SECTION B: SKILLS OF PLANNING SCHOOL BASED ASSESSMENT

Please **tick** where appropriate your skills level of these planning items

Scale: 1 = very limited, 2 = limited, 3 = sufficient, 4 = very sufficient

S/N	**PLANNING ITEMS**	**1**	**2**	**3**	**4**
7	Taxonomy of educational objective: cognitive				
8	Taxonomy of educational objective: affective				
9	Taxonomy of educational objective: psychomotor				
10	Writing general objective for lesson plan				
11	Writing specific objective for lesson plan				
12	Developing table of specification for test				
13	Outlining instructional content for the test				
14	Listing instructional objectives for the test				

SECTION C: KNOWLEDGE IN SCORING, ANALYZING AND REPORTING SBA PROJECTS

Please tick the box that applies relating to your skills in Scoring, analyzing and reporting SBA in your school.

Scale: 1 = very limited, 2 = limited, 3 = sufficient, 4 = very sufficient

S/N		1	2	3	4
15	Scoring the MCQ				
16	Scoring essay questions				
17	Calculating mean				
18	Calculating standard deviation				
19	Reporting score				

SECTION D: CHALLENGES WITH THE IMPLEMENTATION OF SCHOOL BASED ASSESSMENT

20. Please do you face any challenge with SBA implementation?

( ) yes ( ) no

21. If yes list some of these challenges below

……

……

……

……

22. Please share any other thing you know concerning SBA

……

……

……

THANK YOU.

APPENDIX 3

4.2 TRAINING AND DEVELOPMENT INTERVENTION ACTIVITY TABLE

TOPIC: IMPROVING THE PROJECT SKILLS OF ZANTELI TEACHERS ON SCHOOL BASED ASSESSMENT (SBA)IN THE GUSHEGU DISTRICT

OUTCOMES	ACTIVITIES	RESOURCES	RESPONSIBILITIES	BENCHMARK
ducting re-vention ey	Distribute a questionnaire to participants get their views on the various SBA Project areas before the start of the workshop.	The researcher, Pre-intervention questionnaires, pens/pencils	Researcher	At least 98% response rate in all questions
duction view BA	Introduction of participants, trainers, the researcher, SBA Projects and it its benefits to students, teachers and the nation	The researcher, two SBA Trainers, projector, laptop computer, flip chart, marker	SBA Trainers	None
ove ning s of cipant teachers	Meaning of planning, importance of planning, why plan SBA projects, the Bloom's taxonomy of planning	The researcher, two SBA Trainers, projector, laptop computer, flip chart, marker	SBA Trainers	At least 60% sufficient knowledge acquired in planning SBA projects
increase the knowledge of teachers	How t score, analyzed and report and the various procedures involved in scoring, analyzing an	The researcher, two SBA Trainers, projector, laptop	SBA Trainers	At least increase participants knowledge by

in scoring, analyzing and reporting of SBA	reporting as well as its importance.	computer, flip chart, marker		60% scoring, analyzing and reporting of SBA projects
vention ey	Distribute the post intervention questionnaires to participants	The researcher, Post-intervention questionnaires, pens/pencils	Researcher	At least 98% response rate in all questions
lusions		None		

APPENDIX 4

UDS TRAINING AND DEVELOPMENT

IMPROVING THE SKILLS OF ZANTELI TEACHERS ON SCHOOL BASED ASSESSMENT

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SCHOOL BASED ASSESSMENT

- RATIONALE School-Based Assessment (SBA) is an integral part of student assessment in the course covered by this syllabus. It is intended to assist students in acquiring certain knowledge, skills and attitudes that are critical to the subject

OBJECTIVES OF TRAINING

- TO IMPROVE SKILLS ON PLANNING SBA
- TO ENHANCE SKILLS ON SCORING, ANALYZIND AND REPORTING OF SBA

MEANING OF PLANNING

- Planning is the thinking skill that helps an individual develop strategies to accomplish goals. It helps a child to think about how to complete a task before attempting to begin it. For example, Planning is utilized when a Teaher/ child sets out to complete an art project by first deciding what art supplies they will need, carefully assembling and arranging these supplies, and then taking a step-by-step process for completing the project.

SKILLS OF PLANNING SBA

- Prepare a tentative list of instructionally relevant learning outcomes
- List beneath each general instructional objective a representative sample of specific learning outcomes that describe the terminal performance students are expected to demonstrate.
- Begin each general objective with a verb (e.g., knows, applies, interprets). Omit "The student should be able to

SKILLS CONTINUED

- Begin each specific learning outcome with an action verb that specifies observable performance (e.g., identifies, describes).
- State instructional objectives in terms of:

➢ teacher performance.
➢ learning process.
➢ course content.
➢ two or more objectives.
➢ students' terminal performance.
➢ at the end of instruction

SKILLS CONTINUED

- Review the list for completeness, appropriateness, soundness and feasibility
- Develop a table of specifications to identify both the content areas and the instructional objectives we wish to measure
- Use your test and assessment specifications as a guide

SCORING SBA

SKILLS INVOLVED IN SCORING

- Prepare an outline of the expected answer in advance. Use the scoring rubric that is most appropriate.
- Decide how to handle factors that are irrelevant to the learning outcomes being measured

SKILLS CONTINUED

- Evaluate all responses to one question before going on to the Next one.

- When possible, evaluate the answers without looking at the student's name
- If especially important decisions are to be based on the results,
- obtain two or more independent ratings.

- Grading the test

ANALYZING SBA

SKILLS INVOLVED IN ANALYZING

- The total of the score
- The mean of the score

-By adding the scores of all students divided by the total number of students

- The standard deviation of the score

REPORTING SBA

SKILLS OF REPORTING

- Report the test score to
  - ➢ Students
  - ➢ Parents
  - ➢ The district education office
  - ➢ Use results for the improvement of learning and instruction