UNIVERSITY OF CAPE COAST

# KNOWLEDGE AND PRACTICE OF SCHOOL-BASED ASSESSMENT OF PRE-SERVICE TEACHERS IN CENTRAL REGION

HARUN KOFI OBO

2023

UNIVERSITY OF CAPE COAST

# KNOWLEDGE AND PRACTICE OF SCHOOL-BASED ASSESSMENT OF PRE-SERVICE TEACHERS IN CENTRAL REGION

BY

OBO, HARUN KOFI

Thesis submitted to the Department of Education and Psychology, Faculty of Educational Foundations of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Measurement and Evaluation

FEBRUARY 2023

# DECLARATION

## Candidate's Declaration

I hereby declare that this thesis 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.

Candidate's Signature……Date……

Name: …….

## Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature: ……Date……

Name:……...

## ABSTRACT

The purpose of the study was to explore the knowledge and practice of school-based assessment of pre-service teachers at Komenda and Foso Colleges of Education in the Central Region. The study was guided by the following research objectives; examine the level of knowledge of pre-service teachers on SBA, investigate the attitudes on the implementation of SBA principles, examine the impact of SBA on instructional methods of pre-service teachers and identify the challenges of pre-service teachers in the implementation of SBA. The respondents were chosen from two colleges in the Central Region using the multi-stage sampling procedure because the study involved a very large population. The cluster of population was divided into smaller clusters in several stages which made primary data collection more manageable. The sample size for the study was 381. A quantitative descriptive research design was used for the study and the study was guided by two hypotheses and five research questions. A questionnaire was employed to acquire data for the study. The questionnaire's Cronbach's coefficient alpha was 0.876. The study revealed that pre-service teachers had knowledge about SBA. It was also observed that pre-service teachers had positive attitude towards the application of SBA in schools. Pre-service teachers had adequate time for SBA implementation. SBA was further seen to have impact on pre-service teachers' methods of instruction. Pre-service teachers used SBA to identify the learning needs of students. Teachers further indicated that they faced challenges such as non-availability of SBA guidelines, truancy, irregular pupil attendance and shortage of materials when implementing SBA in schools.

It was discovered that there was no significant difference in pre-service teachers' attitudes toward SBA based on their gender. It is recommended that public school teachers and pre-service teachers undergo timely in-service training on SBA-related topics and tasks in order to remain current. Even if teachers have a positive attitude about using SBA principles, regular in-service training and seminars must still be provided to them. Additionally, the Ghana Education Service and other stakeholders should budget money for workshops and seminars for teachers and pre-service teachers on the difficulties with SBA.

**KEYWORDS**

School

Assessment

Challenges

School-Based Assessment

Pre-service teachers

## ACKNOWLEDGEMENTS

This thesis' successful completion was made possible thanks to the help of many people. My sincere gratitude is extended to my supervisor Dr. Kenneth Asamoah Gyimah of the Department of Educational Psychology and the Vice Dean of the Faculty of Educational Foundations, UCC. This study was directed by your professional counsel, encouragement, and support from start to finish.

I want to sincerely thank Dr. Regina Mawusi Nugba of Faculty of Educational Foundations for her assistance in helping me finish this thesis. To my mother, Madam Aba Hadiza Musah, and my elder brother, Yunnas Obo for their words of inspiration and encouragement. I am also equally grateful to Mrs. Emily Rita Pinto, the Headmistress of Twifo Praso SHS, Mr. Alex Owusu Paintsil, the Assistant Headmaster of the same school, Ms. Jamila Sadique Dawood, Justice Dadzie, and Mr. Stephen Assar-Junior. In conclusion, I would like to offer my most heartfelt gratitude to each and every faculty member for their insightful comments and invaluable assistance during the presentation of the project. Not to mention the readiness and collaboration of my other great colleagues throughout the duration of the programme.

## DEDICATION

To my mother, Madam Aba Hadiza Musah, and my late father, Mr. Kweku Saed Musah, as well as the rest of my family.

# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

# CHAPTER ONE

## INTRODUCTION

Every teaching and learning require an effective assessment to make it complete (Nitko, 2001). Without teachers assessing how well students have been able to pick up or comprehend the knowledge being impacted following the instructional knowledge, there can be no effective teaching or learning (Bunch, 2012). It went on to emphasize that assessment in education is a very essential element of the process of teaching as well as learning. The school-Based Assessment, often known as the SBA, was introduced in Ghana in order to give schools access to an internal assessment system that would aid them in satisfying assessment requirements (Curriculum Research and Development Division [CRDD], 2011). One of the goals of the SBA is to get a comprehensive picture of a student's performance in learning by analysing the activities that are carried out during the teaching and learning processes, gathering ongoing information about teaching and learning, and planning and adjusting how teaching and learning are carried out (Ojo & Gbinigie, 2009; Yin & Adamson, 2015).

The policy-backed practice known as SBA has been adopted by a variety of educational systems across the globe, including those in New Zealand, Australia, the United Kingdom, Canada the United States of America, Ghana, and Zambia, to name a few of these countries' educational systems (Williamson, 2017). Despite the benefits of SBA since its implementation, there are some challenges which need to be looked at. As a result, the study will take into account the knowledge and practice of pre-service teachers in SBA when they are away from college. Therefore, this

study is conducted at Foso and Komenda Colleges of Education to investigate the knowledge and practice of SBA of Pre-service teachers in Komenda and Foso Colleges of Education in the Central Region.

**Background to the Study**

According to Bunch (2012), assessment is a structured procedure for gathering, analysing, and reporting standardized data on students' knowledge, skills, and abilities. In conformity with Nitko (2001), extremely good assessment practices by teachers would help mould students' and teachers' ways of thinking and also motivate both students and teachers on how to be effective with reference to the teaching and learning activities. Teachers and school administrators should therefore take assessment seriously and make sure that the data acquired are accurate and valid for its intended use (Amedahe, 1991).

As a result of the fact that teachers are required to conduct assessments, it is reasonable to expect them to be equipped with at least some level of knowledge and expertise concerning assessment procedures. If a teacher does not have a better understanding of assessment, it is likely that they will encounter some difficulties when assessing their students. It is possible that this will have a substantial impact on the students' academic performance (Lingam & Lingam, 2016). In addition, assessment is the act of gathering information that is then utilized for the process of decision making on educational programmes, students and educational curricula, as well as educational policies (Suskie, 2018). Therefore, it encompasses the entire spectrum of methods that are used to gather information about the pupils' academic progress. This contributes to the provision of information that

facilitates decision-making and facilitates effective stakeholder communication (Zeleke, 2010). Assessment further focuses on the systematic way of data collection to enable review and use educational information to increase students' learning or performance. This emphasizes the abilities and values of the students at the time of graduation (Kelly, 2004).

Globally, each educational reform, practice, and progress has prioritized assessment (Koloi-Keaikitse, 2012). Nitko (2001) explains that assessment is the process of gathering data for judgments concerning students, curriculum, programmes, and educational policy. For teachers to receive accurate and pertinent information, assessment is important (Alyahyan & Düştegör, 2020). It has been discovered that the assessment process is an effective way to enhance teaching and learning activities in the classroom (Faleye & Ojerinde-Dibu, 2005), and not only a measurement-based approach is emphasized here. The assessment process is oriented toward measurement, and it has been found to be successful in doing so (Darling-Hammond, 2010). According to Mehrens and Lehmann (1991), the average person makes hundreds of decisions throughout the course of a single day, and making decisions that are informed by knowledge is essential.

Formative and summative assessment methods are both part of the assessment process (Amadahe, 2014). Formative assessment is used by the teacher to make decisions at various points throughout the process of teaching and learning. It offers information or criticism to both the one teaching and the student as well regarding the effectiveness of their respective teaching and learning (Zelek, 2010). Formative assessment is a tool that assists teachers in gathering information about their students' learning processes, determining

whether or not the students are making progress, and directing teachers as to how to proceed with their own teaching.

Formative assessment, as defined by Vik (2013), is the process of utilizing the learning stage as well as the information collected via the various assessment methods to ensure that students properly understand what is being taught to them. It is utilized to ensure the necessary educational adjustments in the students in order to fulfil the requirements (Boston, 2002). Students are given the opportunity to analyse their own work and get insight into how they might develop based on a variety of teacher-made tests (TMTs) and high-quality assignments through the use of formative assessment, which can be utilized to help the learning process (Boud & Falchikov, 2006). In addition, when formative assessment is made an essential component of a learning experience, both the teaching and learning process as a whole, as well as individual lessons, have the potential to benefit from the incorporation of real assessment behaviour (Berry, 2008).

Summative assessment, on the other hand, is a comprehensive assessment of students' performance that is carried out at a specific time, typically at the conclusion of the programme's course, to determine if the program should be continued or modified (Garrison & Ehringhaus, 2007). It provides a final assessment of the students' learning progress and the extent to which their knowledge has changed as a result of instruction. The method is also known as the end-of-key-stage levelling assessment process (Clark, 2011).

Harlen (2005) depicts the characteristics of summative assessment as follows: The process is not ongoing and cyclical; the data is interpreted based

on publicly available criteria; the judgment is given in terms of levels that must be supported by a quality assurance mechanism; and students play a limited role in the process. According to Miller, Linn and Gronlund (2009), summative form of assessment has the following drawbacks:

1. Anxiety on the parts of students which affected the true performance of the students.
2. There is no provision of feedback to learners to track the progress being made by students.

The Ghana Education Service introduced Continuous Assessment in 1987, at the time of educational reforms, to replace the traditional summative or final assessment. Continuous assessment together with end-of-term tests, and end of term examination have been the primary methods of students' assessment in Ghana since 1987 (Awonyi, 2016). Continuous assessment is a formative evaluation technique that seeks to systematically determine the overall improvements in knowledge, attitude, and abilities that a student has made after a particular sequence of learning experiences (Etsey, 2012). It is calculated using the results of numerous tests, projects, and observational methods, and it summarizes how well students performed in the three domains; thus, cognitive, emotional, and psychomotor domains throughout the period of studying (Okonkwo, 2002). It disagrees with the idea of using a "one-shot" evaluation or an assessment in a way of "end-of-term" exam (Amedahe, 2014).

However, Curriculum Research and Development Division (CRDD), (2011) revealed that the continuous assessment despite its benefits has not

lived up to its expectation due to how it was conceptualized. Among the challenges of the continuous assessment included:

1. Less hours of student-teacher interaction,
2. Significant levels of stress experienced during the administration and scoring of tests,
3. Lack of attention on projects, usage of questions with simple grading requirements,
4. There are issues with continuous assessment, including a lack of moderation and
5. Inconsistency in continuous assessment practices between schools.

Among these and other challenges of the continuous assessment resulted in the School-Based assessment being introduced in September 2008 as part of the new educational reforms (Ministry of Education, 2008). The SBA is intended to accomplish the following purposes:

1. Standardize internal assessment procedures across the current education system,
2. Provide teachers with guidelines for constructing assessment items or questions and other assessment task,
3. Introduce standards of achievement in each subject area and in each class of the school system,
4. Provide guidance in marking and grading of test and other assessment task,
5. Introduce a system of moderation that will ensure accuracy and reliability of teacher's marks,

6. Provide teachers with advice on how to conduct remedial instructions on difficult areas of the syllabus to improve pupil's performance.

Since the inception of the SBA, there have been some challenges in the classroom assessment (CRDD, 2012) though unlike the continuous assessment, the SBA has reduced the burden on teachers. With the SBA, the total class score is 50% instead of the 30% of the CA, class exercises and homework does not form part of the assessment in the SBA (Amadehe, 2000). According to a study by Hamzah, Idris, Abdullah, and Muhammad (2015) in Malaysia, many teachers are uninformed regarding the use of SBA to assess their students' learning; as a result, these teachers do not wish to use the SBA. Furthermore, comparable findings were found in studies by Davidson (2007), Lukman and Uwadiegwu (2012), and Omorogiuwa and Aibangee (2017) as teachers struggle to integrate SBA in their classrooms.

**Statement of the Problem**

Studies carried out all across the world show that teachers lack the necessary expertise in SBA, which prevents them from using it to its full potential in the classrooms (Davidson, 2007; Lukman & Uwadiegwu, 2012; Hamza et al. 2015; Aibangee, 2017). In Malaysia, Talib *et al*. (2014) identified that SBA knowledge among teachers is inadequate and inconsistent. Ojo and Gbinigie (2009) further explained in their study conducted in Malaysia that teachers without better knowledge and skills in SBA are likely to face some challenges in SBA practice. Some teachers are unaware of the SBA's composition, including whether it involves only formative or summative assessments (Md-Ali, Veloo, Krishnasami, 2015).

In addition, according to a study conducted in Malaysia by Hamzah et al. (2015), many teachers are uninformed regarding the use of SBA to assess their students' learning, and as a result, these teachers do not desire the use of SBA. While teachers struggle to implement SBA in their classes, Davidson (2007), Lukman and Uwadiegwu (2012), and Omorogiuwa and Aibangee (2017) found similar outcomes.

Most studies in Ghana have shown that teachers lack enough training in SBA. For instance, Awonyi found that few teachers understood the concept of SBA in a study on Senior High School teachers' understanding of SBA and its challenges in some Senior High Schools in Cape Coast. In the research, a number of recommendations were made, including but not limited to additional research on assessment practices in the area of the SBA guidelines, scoring, and the use of test results to improve teaching. The level of training has also been shown to have a significant impact on teachers' knowledge of and preparedness for SBA (Amadahe, 2014).

Thus, teachers including pre-service teachers should be given more training in SBA (Veloo et al., 2015). Awonyi (2016) found that mathematics teachers in Senior High Schools in the Cape Coast Metropolis faced challenges such as lack of assessment materials, inadequate record keeping facilities, truancy and absenteeism. Also, Nugba (2012) looked at the effectiveness, impact and challenges of the implementation of SBA in Obuasi Municipality. It was identified that inadequate equipment and facilities, non-availability of SBA assessment guidelines, lack of training for teachers. Nugba (2012) also observed that teachers were not trained before the implementation of SBA which affects the implementation of SBA.

Several research has shown that most teachers do not have adequate information regarding assessment (Amsami, Mohammed & Mazila, 2015). This leads to exploring how SBA is understood by pre-service teachers in Komenda Edina Eguafo Abrem (KEEA) Municipal in Central Region of Ghana as compared to policy documentation and also without considering the training given to pre-service teachers on SBA guidelines. This prompted the idea to assess the level of SBA knowledge among pre-service teachers of Komenda and Foso Colleges of Education.

**Objectives of the Study**

The primary objective of the research was to examine the knowledge and practice of pre-service teachers of Komenda and Foso Colleges of Education. Specifically, the research aims to:

1. Examine the level of pre-service teachers' knowledge of SBA
2. Investigate the attitude of pre-service teachers on the implementation of SBA principles.
3. Examine the impact of SBA on the instructional methods of pre-service teachers.
4. Examine the pre-service teachers' approaches in the implementation of the SBA.
5. Identify the challenges of pre-service teachers in the implementation of SBA.
6. Discuss gender difference in pre-services teachers with respect to the attitudes of pre-service teachers towards the application of SBA guidelines.

7. Discuss the age difference in pre-services teachers with respect to their knowledge in the use of SBA.

**Research Questions**

The following research questions guided the study:

1. What is the level of knowledge of pre-service teachers in SBA?
2. What is the attitude of pre-service teachers towards the application of SBA guidelines?
3. What is the impact of SBA on pre-service teachers' instructional methods?
4. How do pre-service teachers implement the concept of SBA during off-campus teaching practice?
5. What are the challenges faced by pre-service teachers in the implementation of SBA during off- campus teaching practice?

**Research Hypotheses**

The following hypotheses were tested.

1. $H_o$: There is no statistically significant gender difference in the attitudes of pre-service teachers towards the application of SBA guidelines.

   $H_1$: There is a statistically significant gender difference in the attitudes of pre-service teachers towards the application of SBA guidelines.

2. $H_o$: There is no statistically significance age difference in pre-service teachers' knowledge of SBA

   $H_1$: There is no statistically significance age difference in pre-service teachers' knowledge of SBA.

## Significance of the Study

This study will be significant for teachers, students or pre-service teachers who are under training to become teachers to understand the concept of SBA. Educational administrators may use the findings and recommendations to optimize the quality of education in Ghanaian basic schools. Different assessment strategies will be brought out and will be of importance to teachers and educational administrators. As a means of expanding knowledge, other scholars and institutions may pursue the suggested areas for more study. Again, the outcomes of the study will be able to inform the Ghanaian Ministry of Education regarding the quality of SBA training provided to pre-service teachers in Ghanaian colleges of education.

## Delimitation

Geographically, the study was restricted to the Central Region of Ghana's Komenda Edina Eguafo Abreim (KEEA) Municipal and the Foso College of Education in the Assin Foso municipality. The two colleges were selected for the study colleges because it was easy obtaining data on the population size. The study discusses the knowledge and practice of school-based assessment of pre-service teachers in Komenda and Foso Colleges of Education in the Central Region.

## Definition of Terms

**Assessment**: Assessment involves the process of obtaining information that is used for making decisions about students, curricular, programmes and educational policies (Nitko, 2001). According to Alyahyan and Dustegor (2020) assessment process is very effective for improving teaching and learning and learning.

**School-based assessment**: it is a type of formative assessment that gives students feedback and scores based on the tasks they completed for school.

**Pre-service teachers**: Pre-service teaching is a period of guided, supervised teaching. The college student is gradually introduced into the teaching role for a particular class by a mentor or cooperating teacher.

**Formative assessment**: It gives teachers and students ongoing information or feedback about how well they are doing in terms of teaching and learning. It is used to ensure educational changes which are required in the students (Boston, 2002).

**Summative assessment**: It entails making a general judgment about the value of an educational program. It is the overall assessment of the performance of the students which is conducted at a particular time, mostly at the end of the course (Garrison & Ehringhaus, 2007).

**Off Campus teaching practice**: It is a practice of teacher development where pre-service teachers are given the opportunity to integrate their knowledge in theory into practice and to blend into the teacher profession.

**Organization of the study**

In Chapter one, the introduction was discussed, which covered the background to the study, the statement of the problem, purpose of the study, the objective of the study, the research questions, the significance of the study, the delimitation, the limitations, the definition of terns, and the organisation of the study. The review of related literature, which includes theoretical, conceptual, and empirical literature is covered in Chapter 2.

The third chapter of the study contains the methodology that was used. This will highlight the research design, study area, population, sampling procedure, data collection instruments, data collection procedures, and data processing and analysis. The study's findings and outcomes are discussed in chapter four, and the summary, conclusions, and recommendations are covered in chapter five.

# CHAPTER TWO

# LITERATURE REVIEW

## Overview

A review of related literature that is important to the study is presented in this chapter. The study examines the knowledge and practice of pre-service teachers during their off-campus teaching practice. Review of current SBA literature is provided in this section. Theoretical, conceptual, and empirical reviews serve as the foundation for the literature. The theoretical review looked at classical test theory and socio-cultural theory with more emphasis given to the classical test theory. The conceptual review looked at formative and summative assessment; School-Based assessment; Pre-service teachers; off-campus teaching practice. Empirically, literature was reviewed on knowledge of SBA practice; attitudes of teachers toward the implementation of SBA principles; teachers' implementation of the concept of SBA; challenges of SBA practices to teachers.

## Theoretical Review

This section will address classical test theory which further expands to socio-cultural theory. The review focuses on how the aforementioned theories inform SBA practice and implementation for academic progress.

## Classical Test Theory

As said by Bichi (2016), Classical test theory (CTT) was developed from the early 20$^{th}$ century approaches in measuring individual differences. Charles Spearman discovered how to derive the reliability index required for making repairs to a correlation coefficient for attenuation owing to measurement error, and his discoveries eventually led to the development of

Classical Test Theory (Bichi, 2016). It went on to say that developing high-quality tests is crucial for evaluating students' performance and that different indices are created in order to have dependable and valid elements while developing tests. Therefore, utilizing SBA to create and evaluate, this theory is helpful. CTT is based on the assumption that the actual measurement of a population will conform to the average value of all possible measurements (Kim & Feldt 2010).

According to Iddrisu (2020), CTT developed the following three concepts: a realization of measurement mistakes, a conception of that error as a random variable, and an understanding of correlation and how to index it. These assumptions, which are frequently referred to as classical (or weak) true-score theory, provide the foundation for the majority of the traditional techniques for creating and assessing tests, according to Allen and Yen (2002). Three ideas make up the CTT test score, according to Hambleton and Jones (1993): observed score, actual score, and mistake score. According to their findings, our observed score (X) equals the total of our true score, or true underlying ability (T), plus the measurement error (E) associated with generating our observed scores. CTT can be represented symbolically as X=T+E, where X represents the observed score, T represents the actual score, and E represents the error score. Traditional test theory is preoccupied with the correlations between these three population variables, X, T, and E. (Allen & Yen, 2002).

In every assessment, it is assumed that a person has a genuine score, which is attained when there are no measurement errors (Allen and Yen 2002). They said that the average score a person would earn on the identical test if

they were given an infinite number of opportunities to take it can be used to establish a person's actual score. The number of test results cannot be unlimited. It is therefore a hypothetical but crucial component of CTT. This theory is essential to the task because teachers' understanding of the model, its underlying assumptions, and its limits will lead to improved SBA practice and the correct application of SBA to student decision-making (Crocker & Algina, 1986).

It also emphasises on assessment practices that tries to minimize errors so that the observed score of the student and therefore teachers will be guided in assessment which tend to reduce the level of errors in assessment (Allen & Yen, 2002). This will result in trust and credibility of assessment and scores obtained for quality educational purposes. As a result, this theory would be helpful in developing and accessing SBA since it gives teachers knowledge of measurement challenges and strategies for reducing them.

In summary, this theoretical review focuses on the application of Classical Test Theory (CTT) in the context of school-based assessment (SBA) for pre-service teachers in Komenda and Foso Colleges of Education. CTT, developed from early 20th-century approaches to measuring individual differences, is a measurement theory that emphasizes the reliability and validity of tests. It posits that the actual measurement of a population will conform to the average value of all possible measurements. The review highlights the significance of developing high-quality tests to evaluate students' performance and underscores the importance of understanding CTT's underlying assumptions and limitations. By incorporating CTT into SBA, teachers can gain knowledge of measurement challenges, reduce errors, and

enhance the credibility and trustworthiness of assessment results for educational purposes. However the theoretical review underscores the importance of Classical Test Theory (CTT) in the realm of school-based assessment for pre-service teachers. CTT's focus on reliability and validity of tests is deemed crucial for developing high-quality assessments. By understanding the assumptions and limitations of CTT, teachers can improve their assessment practices, minimize measurement errors, and ensure more accurate and reliable assessment outcomes. This integration of CTT into SBA contributes to the overall quality and credibility of assessments conducted in pre-service teacher education.

**Lev Vygotsky Socio-Cultural Theory (1896-1934)**

A very important component of an efficient and pertinent teaching strategy is formative assessment. It is a crucial component of educational strategies (Heritage, 2010). This is because it aids the teacher in understanding the pupils' level of development or present level of learning. According to Heritage (2010), the instructor can determine the pupils' current level of conceptual comprehension in order to support their development. According to Harlen's (2005) explanation, socializing allows learners to interact with their environment and other people's ideas in order to reconstruct their understanding. In view of this, teachers employ socio-cultural theories of learning to assess students' levels of skill and understanding as well as their present knowledge. Since no one else can learn for pupils, they are the only ones who can involve them in social and interactive learning processes.

Formative assessment enables teachers to analyse students' comprehension in order to narrow the knowledge gap between present learning and predicted future objectives (Shavelson, 2006).

In addition, according to Lev Vygotsky's theory, teachers evaluate students' performance using the Zone of Proximal Development (ZPD). According to Vygotsky's theory, the student is intellectually prepared for the ZPD, which is the area of exploration, but continued growth of the ZPD requires assistance from others and social interaction (Saracho, 2023), as shown in the picture below:


*Figure 1*: Vygotsky's Zone of Proximity Development (ZPD)

Harlen (2005) asserts that the constructivist theory of learning places a strong emphasis on the learners' roles in the learning process, which is developed by socio-cultural theories of learning. Huitt (2000) asserts that the significance of social interactions and lessons is highlighted by the fact that Vygotsky felt that the development of cognitive abilities is aided by social structures and connections rather than occurring before socialization. Young infants, according to Vygotsky's thesis, are naturally inquisitive and actively involved in their own learning, discovery, and development of new information. Since Vygotsky firmly believed that community plays a crucial role in the process of meaning construction, his theory highlights the fundamental role of social interaction in the development of cognition. As a

result, pupils try to comprehend how to carry out the teacher's directions before internalizing the knowledge and applying it to direct or control their own performance. According to McLeod (2014), the 'More Knowledge Other' and the 'Zone of Proximal Development' are the two guiding principles of Vygotsky's theory.

The MKO is someone who, in relation to a specific task, process, or notion, has a deeper comprehension or a higher ability level than the learner. This might be a representation of professors or students who are intellectually superior. The ZPD refers to the distinction between what a youngster can accomplish on their own and what they can accomplish with support and encouragement from a qualified partner. The Zone of Proximal Development is where children should get the most delicate teaching or supervision in order to help them develop the skills they will later use independently when developing higher mental processes, according to Vygotsky (1978). In the Zone of Proximal Development, he recommends teachers to implement cooperative learning activities in which less capable pupils receive assistance from more capable classmates (McLeod, 2014). The interaction between professors and students as well as between students themselves plays a part in the socio-cultural component of formative assessment. These encounters demonstrate how teachers and students cooperate to learn (Thompson & William, 2005) in order to develop students' capacity for learning via discovery, it is necessary to implement Vygotsky's theory in assessment. As a result, collaborative learning is necessary so that more experienced peers can assist less experienced ones in using their ZPD.

In conclusion, a vital part of efficient and relevant training in contemporary methods of teaching and learning is formative evaluation. According to Heritage (2010), a teacher is able to know the level of their student by asking questions like; what level is the student? What direction are they going? How can they get there? With reference to the established goals defined during this process, the teacher gains knowledge of the concepts that students grasp at specific times in time and is better prepared to assist students in deepening their understandings. Students can also use this to determine their present level of learning. According to the Vygotsky theory of evaluation, reciprocal instruction is necessary to increase students' capacity for learning via experience. In this way, the teacher's direct involvement in the process gradually decreases as the students and teacher work together to develop and practise four important skills: summarising, questioning, clarifying, and forecasting. The process of structuring or organising a task such that a student may complete it successfully with the aid of scaffolding and apprenticeship from a teacher or more experienced peer. Collaborative learning is once again necessary so that more experienced peers can assist less experienced members in navigating their ZPD.

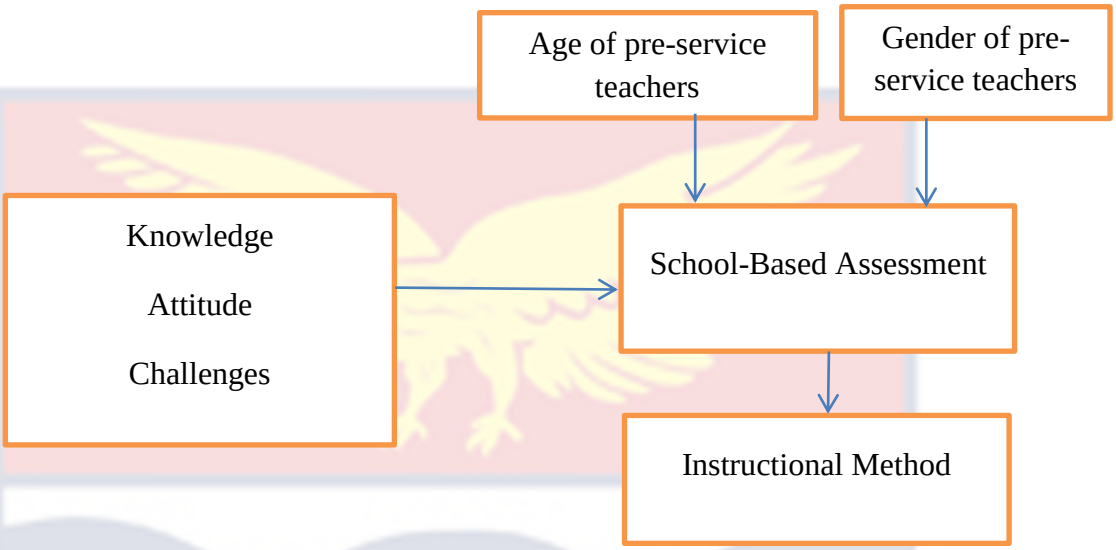
This theoretical review examines the relevance of Lev Vygotsky's socio-cultural theory to the topic of school-based assessment in Komenda and Foso Colleges of Education. It highlights the significance of formative assessment in understanding students' development and conceptual comprehension. By employing socio-cultural theories of learning, teachers can assess students' skills and knowledge. Vygotsky's theory introduces the concept of the Zone of Proximal Development (ZPD), which suggests that

students can achieve further growth with support and social interaction. The review emphasizes the role of social interactions and collaborative learning in facilitating students' learning within the ZPD. It concludes that formative assessment, informed by Vygotsky's theory, plays a crucial role in contemporary teaching and learning methods.

Again the theoretical review provides a solid foundation for understanding the theoretical underpinnings of school-based assessment and its connection to Vygotsky's socio-cultural theory. It highlights the importance of considering students' current level of learning, the role of social interaction in cognitive development, and the utilization of the ZPD and the MKO concept. The review suggests that incorporating collaborative learning activities and scaffolding can enhance students' capacity for learning and contribute to effective assessment practices. By incorporating these theoretical insights into their teaching practices, pre-service teachers in Komenda and Foso Colleges of Education can develop a more comprehensive understanding of school-based assessment and its application in the classroom.

**Conceptual Framework**

***Figure 2:*** Conceptual Framework




**Conceptual Review**

**The concept of assessment**

Assessment is regarded to be a potent lever in this era of accountability that can either enhance or detract from students' learning (Ghaicha, 2016). Assessment is frequently used to mean a range of various things, claims Bachman (2004). The act of interpreting data on student performance, obtained through a variety of methods or practices, falls within the definition of assessment (Brown, 2004). According to Ghaicha (2016), assessment is operationally defined as a step in the educational process in which teachers evaluate students' achievements by collecting, analysing, synthesizing, and interpreting relevant data about a particular subject of interest in relation to the curricular goals established for their levels and in accordance with the procedures and substantively grounded. It was further explained that it requires assigning students' performance a numerical

description of the degree to which they exhibit particular characteristics or traits measured in accordance with specific standards or criteria, which serves as evidence for many aspects of a student's knowledge, comprehension, skills, and abilities.

Assessment in the classroom takes into account how well students perform on-task in various contexts and circumstances. Of all the phrases used to describe how teachers receive and use information, this one is the most generic (Ghaicha, 2016). He clarified that evaluations should serve as a means of providing feedback on both students' learning and teachers' instruction.

Evaluation, which involves making conclusions about impersonal objects including policies, programmes, curriculum, institutions, organisations, and people, is also related to assessment in some way. For instance, systemic evaluations are carried out to determine how well a system of education is operating. In the majority of educational settings, assessment is a crucial part of any evaluation (Ghaicha, 2016). Assessment is the process through which a quantitative, often numeric, value is ascribed to the qualities or dimensions of students' performance while assessing aptitude or ability in a manner that safeguards the students' level of performance (Bachman, 2004; Nitko, 1996; Airasian, 1994). When she states that "measuring is the process of quantifying the degree to which someone or something exhibits a characteristic, quality, or feature," Gallagher (1998) is even more detailed (p.3). The number of correct responses a student provides in relation to the total can be counted, converted to a percentage, or converted to a numerical score. Not all modes of assessment, however, include measuring students and assigning them marks or ranks. Comparatively, testing (or examining) is the

process of putting someone through a test to elicit and analyse a certain behaviour (concept), often in a controlled environment, in order to make conclusions about specific characteristics of the person. Tests, for instance, are used to quantify how much a student has learned in a particular course or subject by employing more or less formal, systematic ways of assessment to establish a student's understanding with respect to specified content. Typically, these strategies involve the use of paper-and-pencil instruments designed to elicit a particular behaviour, knowledge, or ability from the test taker. A test is a type of evaluation that normally consists of a sequence of questions presented over a predetermined period of time and in conditions that are reasonably equivalent for all pupils (Linn & Gronlund, 1995). Assessments can be either summative or formative.

The conceptual review provides a comprehensive understanding of assessment in the context of pre-service teachers. The review defines assessment as the process of evaluating students' achievements by collecting, analysing, and interpreting relevant data in relation to curriculum goals. Assessment involves assigning numerical descriptions to students' performance based on specific standards or criteria. It serves as a means of providing feedback on both student learning and teacher instruction. The review also distinguishes assessment from evaluation and testing, highlighting that assessment is an integral part of educational evaluation processes and involves measuring students' performance, while testing focuses on eliciting and analysing specific behaviours or concepts.

Additionally, the review explains the distinction between summative and formative assessments, where summative assessments evaluate overall

performance at the end of a learning period, while formative assessments provide feedback and monitor progress during the learning process. In all the conceptual review offers a comprehensive overview of assessment, its purpose, and its relationship to evaluation and testing. It sets the groundwork for understanding the knowledge and practice of school-based assessment among pre-service teachers in the mentioned colleges of education in the Central Region.

**Formative Assessment**

Throughout a class, unit, or course, teachers assess students' understanding, learning needs, and academic achievement using a range of formative evaluation methods. Formative assessments assist teachers identify concepts that students are trying to comprehend, skills they are having trouble obtaining, or learning standards they have not yet attained so that lessons, instructional strategies, and academic support can be modified accordingly. Since educators utilise the data to adjust and enhance their teaching methods throughout a lesson or instructional period, formative assessments are frequently referred to as being for learning (Mctighe & O'connor, 2005).

Summative tests are typically administered at the end of a unit, course, semester, or school year to assess student learning (Nitko, 1995). Tests, assignments, and projects that are scored and assessed as summative assessments are frequently used to determine if students have grasped the subject that was meant to be covered during the designated period of instruction or activity. Summative assessments are commonly referred to as the sum of students' learning because they quantify academic accomplishment at the end of a unit or session (Mctighe & O'connor, 2005).

This review provided a clear and concise explanation of formative and summative assessments. It effectively highlights the purpose and timing of each assessment type. However, it does not directly address the knowledge and practice of school-based assessment among pre-service teachers in the specific colleges of education mentioned in the topic. The review could benefit from connecting the concepts of formative and summative assessment to the context of the study and discussing their relevance and implications for pre-service teacher training and practice.

**Concept of school base assessments (SBA)**

SBA, according to (CRDD, 2011), is a formative assessment that involves the regular gathering of data on students' learning status. This evaluation system is used in Ghana at the primary level to gather data on pupils' academic growth abilities (CRDD, 2011). SBA is comprehensive in that it evaluates students' learning in the cognitive, affective, and psychomotor domains (Opara et al, 2015). Students are regularly evaluated in the three learning areas at regular intervals in SBA practises using a variety of instruments, including tests, assignments; observation, interviews, questionnaires, and project work (Adeloju et al., 2016). SBA includes both formative and summative assessment, evaluating both the learning process and its outcomes (CRDD, 2011; Md-Ali et al., 2015; Opara et al., 2015; Yan, 2014). SBA is an assessment that is carried out on a regular basis and it was inspired by classroom circumstances requiring active engagement and involvement of students and emphasising learning over grades and scores (Aduloju et al., 2016). By putting more emphasis on students' learning progress and growth than only their score and marks, it improves the

meaningfulness of assessment (Reyneke, 2016). The SBA also includes formative and summative evaluations; thus, it evaluates both the learning process and the learning outcomes (Yan, 2014).

SBA assists students in tracking their own development, which also assists teachers in keeping an eye on both their pupils and themselves (MacGaw, 2006). It is also a very effective method for teachers to determine the information, comprehension, and skills that students have achieved (OECD, 2005). According to CRDD (2011), SBA's narrative differs from other modes of assessment due to a number of significant qualities. The teacher is involved from start to finish, from planning the assessment program to finding and/or developing relevant assessment activities to making assessment judgments.

1. It permits the collecting of several student performance samples over a period of time.
2. It can be altered and adjusted by the instructor to meet the teaching and learning objectives of the specific class and students being evaluated.
3. It is conducted in standard classrooms.
4. It is led by the pupils' teachers
5. It permits the teachers to provide immediate, constructive feedback to students.

It supplements other forms of assessment, such as external examinations. In 2007, the CRDD strongly recommended a standardized form of assessment system to reduce the excessive test in basic schools which was

implemented in September 2008 (Anamuah-Mensah, 2015). The (CRDD, 2011) noted that the SBA is emphasized on the following six characteristics:

1. Thinking Skills: This means that pupils should be able to develop new ideas, procedures, and strategies, as well as a better understanding of problems.
2. Understanding an issue, examining it from several angles, and adopting solutions based on a combination of knowledge and techniques from various areas are all examples of problem-solving skills that students should be able to learn.
3. Cooperative Learning: Students should be able to collaborate with classmates to complete projects while learning as they progress.
4. Working with Numbers: Improved numerical skills lead to a better grasp of and application of mathematical principles to real-world issues.
5. Moral and Spiritual Development: Students should be able to have a positive outlook on life and a fair dealing attitude with others.
6. Capability to give professional presentations in front of classmates and respond to their questions

In Ghana, SBA was substituted for Continuous Assessment (CA) at the most recent curriculum review in 2007 with the intention of enhancing assessment quality (Mereku, Nabie, Appiah & Awanta, 2011). The main modifications to assessment brought about by the reforms are:

1. Classroom exercises and home work are for formative evaluation
2. Percentage contribution of class exercise/home work/project work and overall school assessment should be 50%

3. Percentage contribution of end of term examination to overall school assessment should be 50%
4. Number of assessments per term should be 4.
5. Number of assessments per year should be 12.
6. Number of project task to be given per term is 1.

Also, in SBA three evaluations and one project activity will be completed in a term as part of the SBA implementation, according to the CRDD (2011), for a total of one assessment every year. Two tests, one group activity, and a project make up each term's assessments. The exams are known as Class Assessment Tasks (CAT). CAT1 is a test-based assignment that will be given at the conclusion of Week 4 of Term 1. A group exercise called CAT2 will be given at the conclusion of Term 1's eighth week. At the conclusion of Week 11 of Term 1, CAT3 will likewise take the form of a class exam. CAT4 will be the assignment for the first term. A test-based activity called CAT5 will also be given at the conclusion of Term 2's Fourth Week. A group exercise called CAT6 will be given at the conclusion of Term 2's eighth week. At the conclusion of Week 11 of Term 2, CAT7 will also take the form of a class exam. CAT8 will be the project for the following term. At the conclusion of Week 4 of Term 3, CAT9, a test-based task, will also be given. At the conclusion of Week 8 of Term 3, CAT10 will be given as a group activity. At the end of Week 11 of Term 3, CAT11 will also be given in class. CAT12 will be the project during the third semester. To give schools enough time to prepare for and administer the End-of-Term Test in the twelfth or final week of the term, the SBA administration is anticipated to be finished by the end of the eleventh week. Selecting a project topic and gathering data begin in

the second week, and the project is finished and submitted in Week 12 of the term or at the end of the semester, whichever comes first.

Table 1 presents the distributions of the four assessments for each term, the number of items inside each task, and the mark distribution for upper primary. It supplements external examinations and other sorts of evaluation.

Table 1: *Distribution of Tasks, Number of Items in Each Task*

| | **Primary 4** | | **Primary 5** | | **Primary 6** | |
|---|---|---|---|---|---|---|
| | **No. of Items** | **Mark Allocations** | **No. of items** | **Mark Allocation** | **No. of Items** | **Mark Allocation** |
| CAT 1 | 10 | 10 | 10 | 10 | 10 | 10 |
| CAT 2 | 1-3 | 20 | 1-3 | 20 | 1-3 | 20 |
| CAT 3 | 10 | 20 | 10 | 20 | 10 | 20 |
| Total marks for CATs | | 50 | | 50 | | 50 |
| End of exams | | 50 | | 50 | | 50 |
| Total marks for CAT 1-3 and end of term exams | | 100 | | 100 | | 100 |
| CAT 4 | 1 project | 100 | 1 project | 100 | 1 project | 100 |
| **Total number of SBA per term** | **4** | **200** | **4** | **200** | **4** | **200** |

Source: Adopted from (CRDD, 2011)

To grade the student's performance for the term, the marks from Table 1's CATs (CAT1-3), which total 50 marks, would be added to the marks from the End of Term test to make a total of 100 marks. The SBA project should be graded independently and given a separate score out of 100.

The curriculum objectives should be divided into three terms when creating class assessment activities. The following guidelines are provided by CRDD (2011) for identifying the essential goals:

1. A key component of each term's work is its objectives. For further
2. Research on the topic, objectivity is necessary and extremely important.
3. Achievable goals that are challenging for teachers to explain to students.
4. Objectives that are divided into several smaller tasks.
5. Learning outcomes that call on the student to use creativity.

After the first four weeks of each of the three terms, an individual evaluation called the first assessment (CAT1) is given. The CAT1 objectives are those that should be covered in the first four weeks of each semester. To gather data on how each student performed on the task's items, CAT1 will be given, scored, and reported. The knowledge, understanding, and application of the content covered in class should primarily be covered by CAT1, which should be weighted 20% (CRDD, 2011).

In accordance with CRDD (2011), the second-class assessment (CAT2), which is given at the conclusion of the eight-week school term, shall be a group activity. It strives to ensure that students acquire the critical concepts they struggle with while also introducing them to the values and principles of cooperative learning. It should be structured into one, two, or three difficult but important specific objectives in the subject or concerns that arise in the first and second months of the semester.

The teacher should move among the groups while they work and offer support as needed without giving the correct answers, according to CRDD (2011). The instructor should also instruct each group of students to give themselves a mark and a grade for the tasks they performed in CAT2, CAT6,

and CAT10 at the end of the exercise. The grades and marks given by students should not be considered final, as they serve the purpose of encouraging students to exert substantial effort in tackling challenges and motivating them to embrace learning.

According to CRDD (2011), points should be given based on how well each group performed and put out effort. The highest mark should be given to the group or groups who exhibit the best comprehension of the topic's concepts and deliver the finest activities and results, it was stated. According to CRDD (2011), not all students in the top group will receive the highest grade because one or two students may not be performing at the same level as the rest of the group.

At the conclusion of the eleventh week of each term, the third-class evaluation should take place. According to CRDD (2011), the teacher should create the assignments that the CAT3 and CAT7 exam items will include:

1. 20% of the objectives were covered in the first month (First four weeks of the term).
2. 20% of the objectives were covered in the second month, 2. (Second four weeks of the term).
3. In the third month, 60% of the targets were covered (Weeks 9 – 11 of the term).

However, CAT11 should be developed using a system that overlaps in a way that entails:

1. 20% of the goals were covered in the first term.

2. Twenty percent of the second-term targets.

3. In the third term, 60% of the objectives were covered.

CRDD (2011) states that while creating the end-of-term exam, Term 1 should be based on all of the Term's objectives taught, while Term 2 should be based on 30% of Term 1's teaching objectives and 70% of Term 2's instructional objectives. Exams for Term 3 should be based on 10% of Term 1 objectives, 20% of Term 2 objectives, and 70% of Term 3 objectives. In order to emphasize to students that they shouldn't forget the work from earlier terms, the assessments must overlap. However, for the end-of-term exams, teachers are expected to set 40% of the test items to be of the high-ability thinking type.

When using SBA, students are assessed using four distinct criteria: school evaluation, psychometric assessment, physical activity assessment, and sport and extracurricular activities. In the classroom, teachers have greater latitude to design high-quality assessments that align with their students' learning objectives and teaching methodologies. The evaluation of students is based on many proof markers on a specific grade, ranging from Band 1 to Band 6. (Darling-Hammond & Mccloskey, 2008). The Malaysian Examinations Board (2012) describes SBA as a type of evaluation used in schools which is organised and carried out methodically. The Malaysian Examination Board's established protocols are followed while reporting the results in planned activities.

Students' learning environments and outcomes in schools are directly impacted by teachers' knowledge of SBA implementation. According to the findings of McMillan's (2000) study, teachers must possess the abilities necessary to assess student learning. He discovered that teachers who were familiar with assessments could successfully incorporate them into their lesson plans. Additionally, they are able to apply successful methods, techniques, and

approaches to help their pupils become more competent. According to Cheah (2010), the knowledge, abilities, and instructor attitudes were the major obstacles to conducting the SBA. The objectives of the new Malaysian curriculum assessment system can be attained by teachers who participate in workshops or seminars providing formal training (Cheah, 2010).

The review provided an overview of school-based assessment (SBA) in the context of Ghana's education system. It explains that SBA is a formative assessment method that gathers data on students' learning progress in cognitive, affective, and psychomotor domains. The review highlights the key characteristics of SBA, such as its emphasis on learning progress over scores, the involvement of teachers throughout the assessment process, and the use of various assessment instruments. It also mentions the modifications brought about by the curriculum reforms in 2007, which aimed to improve assessment quality by allocating weightage to different assessment components. However, the review lacks specific information about the knowledge and practice of SBA among pre-service teachers in the Komenda and Foso Colleges of Education, as well as a critical analysis of the current state of SBA implementation.

Further the review provides a general understanding of SBA in Ghana, it lacks depth in examining the knowledge and practice of SBA among pre-service teachers in the specific colleges of education. It does not offer specific insights into the level of understanding and application of SBA principles by pre-service teachers or address potential challenges they may encounter. Additionally, the review would benefit from incorporating empirical studies or scholarly articles to support the information presented, enhancing the

credibility and reliability of the review. A critical analysis of the strengths and weaknesses of SBA implementation in the selected colleges, along with recommendations for improvement, would further enrich the review.

**Types of tasks under SBA**

SBA uses a criterion-referenced assessment to determine the quality of student performances and to assign a score to those performances based on predetermined criteria. Six benchmarks or criteria have been established to evaluate the performance of students. The standards define a measurable level of development or quality within a certain domain of ability, knowledge, or comprehension. The following are the NCTB (2006) criteria:

1. Class tests: Written tests known as class assessments are typically given after each lesson, chapter, or textbook unit has been completed. Questions must be answered by students without assistance from teachers or peers.
2. Class work: Work completed in a classroom, such as listening, reading, writing, sketching, or thinking, is referred to as class work.
3. Home work: Individual textbook-based assignments that the teacher assigns to students for completion at home.
4. Assignments: These are extensive assignments that require students to research material from sources other than their textbook in order to achieve advanced knowledge.
5. Oral presentation: Here, students are supposed to strengthen their oral communication skills by speaking in front of the class.

6. Group work: Under this criterion, the performance of students in working cooperatively, respecting the viewpoints of others, and developing leadership qualities is evaluated.

In summary this review presents the criteria used in school-based assessment, including class tests, class work, homework, assignments, oral presentations, and group work. However, the review lacks critical analysis regarding the understanding and implementation of these criteria by pre-service teachers, as well as the effectiveness of these assessments in capturing diverse student abilities and learning styles. The review would benefit from incorporating research findings and empirical evidence to support the impact of these criteria on student learning outcomes.

**Pre-service Teachers**

Pre-service teacher preparation programmes typically place a larger focus on understanding what it means to be a teacher and learning how to be a teacher than on studying how to teach a particular subject to pupils (Illingworth, 2012; Kraglund- Gauthier, 2014). It is believed that earning a bachelor's degree before beginning teacher training will allow the pre-service teacher to focus solely on becoming a teacher, as the field's material will already be established. Typically, a student in a pre-service training program completes a practicum under the supervision of an experienced teacher or mentor in a regular classroom. Pre-service teacher preparation programmes that foster professional practice inquiry enable their students take on the responsibility of learning the concepts and skills required as a display of skills and subject-matter knowledge in the classrooms (Kraglund-Gauthier, 2014). Practical practice or learning "how to teach" in a real clinical environment

(school) under careful observation may be the most challenging pre-service experience (Beynon, Geddis, & Onslow, 2001). A practicum produces mixed results due to the diverse personalities, viewpoints, and behaviour of the students in the class (Ryan, 2008).

Sonja and Flores (2022) claim that pre-service teachers' perceptions of assessment have received comparatively little attention in professional development studies in initial teacher education. But these ideas, along with other ones about teaching and learning, have a significant influence on how future teachers instruct their students. The perceptions of assessment among preservice teachers have gotten less attention in the realm of research on beliefs and conceptions (Brown, 2004; Brown & Remesal, 2012; Remesal, 2011; Wang, Kao, & Lin, 2010). Initial teacher education serves as the beginning of the professional development of future teachers and is critical to the formation of their professional identities (Flores, 2020); therefore, "it may be that one of the most significant changes that prospective teachers need to undergo usually includes their conceptions, that is, their understanding, beliefs, and attitudes" (Brown & Remesal, 2012).

In addition, recommendations have been made for initial teacher education based on studies of the perspectives of practicing teachers. However, our comprehension of the ideas of pre-service teachers is extremely restricted (Brown & Remesal, 2012; Xu & He, 2019). Brown and Remesal (2012) demonstrated that pre-service and in-service teachers had different ideas of the purposes of assessment, despite the fact that pre-service and in-service teachers' impressions of assessment may appear identical. The close closeness to their own school experiences and the lack of teaching experience

may have a substantial impact on pre-service teachers' perceptions of assessment.

Several researches have noted that teachers frequently lack basic assessment training, which results in their lack of assessment literacy (Popham, 2009; Stiggins, 2010). Additionally, research shows that assessment literacy instruction should focus on assessment knowledge as well as pre-service teachers' views about assessment, their previous experiences, and emotions (Xu & Brown, 2016; Levy-Vered & Alhija, 2015). The notions of assessment that are developed by pre-service teachers are based on the experiences they had earlier in their education as students. These ideas may or may not align with the norms of what is generally seen as sound assessment practice. It's possible that these ideas are holding them back from developing their practices and skills in the future (Brown & Remesal, 2012). In addition, research has shown that pre-service teachers' exposure to assessment while they are undergoing teacher preparation may result in alterations to the assessment paradigms that they use in their classrooms (Deluca, Chavez, & Cao, 2013; Graham, 2005; Smith, Hill, Cowie, & Gilmore, 2014). On the other side, Deneen and Brown (2016) shown that even when assessment literacy is increased, the ideas that pre-service teachers have towards assessment might not change. These findings suggest that discussing ideas related to assessment is "an essential prerequisite for being an assessment-literate teacher," and that assessment literacy is something that should be incorporated into early teacher education (Xu & He, 2019, p. 2; Brown, 2004).

The review explores the focus and challenges of pre-service teacher preparation programs, particularly regarding the perceptions of assessment

among pre-service teachers. While these programs primarily concentrate on understanding the role of a teacher, practical experience in real classrooms is considered crucial but can be difficult due to the diverse student population. The review also highlights the limited attention given to pre-service teachers' perceptions of assessment in professional development studies. However, these perceptions significantly influence how future teachers approach instruction. The review suggests that incorporating assessment literacy into early teacher education is essential as pre-service teachers' existing ideas about assessment, shaped by their own school experiences and lack of teaching experience, may hinder their professional development. By addressing these issues and providing comprehensive assessment training, pre-service teachers can develop a better understanding of assessment practices and become more effective teachers.

Again, the review underscores the need for a stronger emphasis on assessment literacy in pre-service teacher education. It emphasizes that pre-service teachers' perceptions of assessment play a crucial role in shaping their instructional practices and professional identities. Therefore, it is recommended to provide pre-service teachers with opportunities to critically reflect on their beliefs and attitudes towards assessment and to align their ideas with sound assessment practices. By doing so, pre-service teachers can develop the necessary skills and knowledge to implement effective assessments in their future classrooms, ultimately benefiting their students' learning outcomes.

**Teachers' understanding level on the concept of SBA**

The circumstances and outcomes of learning for students in schools are directly impacted by the knowledge of SBA implementation that teachers possess. According to the findings of a study conducted by McMillan (2000), it is essential for teachers to possess the information and expertise required to accurately evaluate their students' academic progress. He made the startling discovery that teachers who had a comprehensive comprehension of evaluations were able to successfully incorporate it into their teaching. Additionally, they were able to raise the capabilities of their students by employing efficient methods, tactics, and strategies. According to Cheah (2010), teacher attitudes, knowledge, and abilities are the major obstacles to conducting the SBA. He went on to say that teachers can acquire new information to meet the requirements of the brand-new curriculum evaluation system in Malaysia by participating in formal training in the form of workshops or seminars. This was the continuation of his previous statement.

The difference between theory and practice would be smaller with formal training. In order to construct this school-based assessment, according to Cheah (2010) SBA teachers require support in order to develop their knowledge, talents, and confidence levels. According to the findings of Brophy's research (1991), teachers have the following understanding of how the teaching and learning process works:

When a (teacher's) knowledge is more explicit, better connected, and more integrated, they will typically teach the subject in a more dynamic manner, depict it in a larger variety of situations, and actively encourage and respond to student comments and questions. This is because explicit

knowledge is better connected and more integrated. In the areas in which they are deficient in knowledge, they will most likely rely heavily on the text for information, place less emphasis on interactive discourse in favour of seatwork, and present the material as a collection of unchanging, factual facts (p. 352).

Children's cognitive development is influenced by teachers' educational knowledge, according to Bobis and Gould (2000). The most significant factor in a child's growth and education was the degree to which his or her teachers understood how children acquire knowledge. John (2002) found that in order for there to be an increase in the level of student comprehension, teachers needed to be taught on and have a comprehensive understanding of the components of the SBA. Similar to this, Antonio (2008) discovered that because teachers were so important in students' assessments, teachers under SBA needed to be knowledgeable about assessing pupils. According to Naimah (2011), who is based in New York City, in order for teachers to use the tools, rubrics, timelines, and procedures that are provided by the examination board, they need to have knowledge about the administration and implementation of SBA at the school level in Uganda. This is required in order for teachers to use the tools provided by the examination board.

The study by Norazman, Nor'ain, and Nur-Fazliana (2012) established that for a favourable learning environment, teachers must be knowledgeable in how they present their courses, possess in-depth subject knowledge, and be very creative. Teachers must exert significant effort to prevent children from routinely underperforming. The report encourages teachers to fix their

deficiencies in a range of areas, such as education, assessment, subject matter, and student mentorship. In order to apply SBA effectively, Cheah (2010) also emphasized teacher expertise and strategies for improving it.

In her research, Ismadiah (2012) found that teachers' participation in briefings, seminars, and courses greatly influences their knowledge of and understanding of SBA implementation processes. He also observed a significant relationship between SBA and knowledge and comprehension. Similarly, teachers who attended training sessions were more knowledgeable about administering and evaluating SBA programs (Ismadiah, 2012). These teachers were prepared to implement the SBA in order to attain its larger objectives.

In order for students and their classmates to embrace the changes in the educational system favourably, excellent teachers must have the knowledge to mentor them, according to a 2011 Hong Kong study by Salmiah et al. In addition, these researchers discovered that certain changes affected only specific groups, whilst others affected the entire educational institution. According to a study conducted in Uganda in 2012 by Faridah and Mohini, teachers must be knowledgeable about pedagogy, the subject matter, and the needs of the students. Before presenting a new lesson, assess the level of skills and competencies the student must have acquired. In addition, they found that teachers needed to be aware of both the information covered in prior lessons and the material covered in the next lesson. This knowledge is vital for determining the level of skills and abilities the learner must achieve prior to receiving a new lesson.

In addition, teachers will regularly assess and evaluate students' mastery of the knowledge and abilities associated with a particular topic. This will help them determine where their students are on the learning curve. Accordingly, it was noticed in Uganda that evaluation is important since it has a good impact on the efficient production of new ideas, which in turn serves to continuously improve students' competency (Faridah & Mohini, 2012). The official Circular [No. 2, Year 2011, Examination Syndicate, Reference No. KP. LP. 003.07. 14 (2)] offers information on the modifications made to the national evaluation system in all schools receiving direct or indirect government support. In 2014, Malaysian student grades were based on the results of the National Assessment. This evaluation considered the findings of the School Assessment, Centralized Assessment, Physical Activity Assessment, Sports and Co-Curricular Assessment, and Psychometrics Assessment. According to the Examination Board, which cites a report from the daily Utusan (2012) as its source, teachers do not understand the implementation process of this new evaluation system in conjunction with the teaching and learning process in schools (Faridah & Mohini, 2012). This is due to the fact that it is difficult for teachers to create instruments that are applicable to multiple sorts of evaluation. Exams are the most common method by which teachers assess the academic performance of their students.

Regarding the implementation of school-based assessment, educators' perspectives are presented. Individual's positive and negative evaluation of a particular issue is referred to as their attitude toward that topic. An individual's attitude toward an activity is determined by his or her analysis of the action's outcomes and his or her positive and negative evaluation of those outcomes

(Ajzen & Fishbein, 2000). According to the findings of a number of research, there are considerable relationships between a teacher's disposition and how they use of SBA. Positive attitudes toward the SBA on the side of teachers were found to be linked with high levels of proficiency of its use (Teo, 2008).

A person's attitude is determined by a combination of diverse evaluations. The emotion, behaviour, and cognition paradigm is applied to explain attitude formation (Goodings & Portland, 1995). A person's affective response, which is an emotional reaction, summarizes their level of desire for something else. Behavioural intention refers to a person's verbal representation of their normal behavioural inclination or behavioural aim. Thoughts about an object are a component of a person's cognitive response, which is an evaluation of the entity from a cognitive position. The great majority of attitudes are developed by either direct experience or indirect learning from the environment. Personal characteristics and disposition of instructors have a substantial impact on their views, and the two factors appear to have a strong relationship (Goodings & Portland, 1995).

It is well-known that the assessment procedure is a very difficult aspects of the teaching profession. The cognitive, emotional, and formative consequences of evaluating the work of a young kid can place a substantial mental load on a teacher. Despite the stress it generates, one of the most significant components of effective teaching is the ability to evaluate students in order to improve one's own teaching techniques (Goodings & Portland, 1995). Therefore, in order for teachers and instructors to successfully use SBA to aid in teaching and learning, they must have the proper mindset.

There is mounting evidence that educators' understandings of teaching, learning, and curricula have a significant impact on the ways in which educators teach as well as the things that students learn or accomplish. Consequently, it is important to examine how educators perceive school-based assessment (Clark & Peterson, 1986; Pajares, 1992; Calderhead, 1996), It is correct to say that a teacher's ideas regarding the levels of self-confidence, morale, creativity, and work are "closely tied to one's choice of evaluation procedures" (Asch, 1976). According to Tittle (1994), teachers are responsible for developing schemas or integrating evaluation-based representations into pre-existing perspectives of the self, teaching and learning, and the curriculum.

As a result of their survey of elementary school teachers in Kenya, Cizek et al. (1995) came to the conclusion that, due to the highly individualized nature of assessment methods, a sizeable portion of educators appear to have assessment policies based on their own distinct teaching ideals and views. This was the conclusion that was reached as a result of their survey of elementary school teachers in Kenya. These conclusions were arrived at by extrapolating the results of the survey. Kahn (2000) conducted research on high school English classes in Kenya and came to the conclusion that teachers used a wide variety of assessment types that appeared to be in conflict with one another. This was due to the fact that teachers eclectically held and implemented transmission-oriented and constructivist models of instruction and learning in their classrooms. Kahn's research was published in 2000. In spite of the individualistic appearance of some ideas, it is feasible to state that

there exist cognitive configurations or occurrences that are socially and culturally shared (Van den Berg, 2002).

Therefore, all pedagogical activities, including teachers' perceptions and assessments of student's behaviour and performance (i.e., school-based assessment), are influenced by teachers' conceptions of various educational artifacts, such as teaching, learning, assessment, curriculum, and teacher efficacy. These principles include teaching, learning, evaluation, and curriculum (Kahn, 2000). It is of the utmost significance that these ideas, as well as their relationships with one another and within themselves, be made obvious and transparent. This is especially true if it is deemed sensible or desirable for instructors to modify their beliefs, which is, of course, the objective of professional development exercises (Borko, 1997).

Several research works have revealed that certain teachers lack the preparation necessary to successfully apply the SBA. In Nigeria, Norani and Saifulazri (2010) conducted a study and discovered that some teachers are hesitant to participate in SBA. In addition to this, they found that some teachers were unwilling to participate in SBA owing to a lack of training, which indirectly lowered their confidence in their ability to carry out SBA. It was found that this had an effect on the instructors' belief in their capacity to carry out SBA. According to the findings of research carried out in the United States by Stiggins (2005), teachers in the United States lack the motivation to implement new assessment systems for learning in the classroom because they are not given opportunities to learn the methods for effectively conducting assessments. This is because teachers in the United States are not given the opportunity to learn the methods for effectively conducting assessments.

Stiggins (2005) discovered that teachers' readiness to use assessment for learning varies considerably. In accordance with the curriculum, for instance, teachers' ability to develop precise performance goals and determine achievement standards for students was demonstrated to have a broad scope. In addition, teachers must always be prepared with evidence of student learning, evaluate their pupils' participation level, and keep systematic records.

According to research by Alaba (2012), Nigerian teachers are unwilling to conduct the SBA in classroom settings. In addition, he discovered that over fifty percent of teachers in Nigeria have a negative view of the impact of SBA on the teaching and learning practices of pupils. He proposed that implementation should be monitored effectively and that all teachers should receive in-service training. Less than half of the teachers in Nigeria (40.7% of the sample) were prepared to apply the SBA at the school level, according to his findings. Concerns of the teachers included knowledge of SBA requirements, processes, assessment methods, the system itself, and the potential to build professionalism in the SBA implementation.

According to Stiggins (2005), the attitudes of teachers toward SBA ranged from positive to negative. The majority of teachers believed that SBA's objectives were admirable and that the pupils would reap several benefits. In spite of this, they had doubts regarding its applicability and the viability of the ideas in classroom pedagogical techniques.

In their study conducted in Brunei, Kamaruddin and Leong (2011) discovered that teachers need more time and preparation to adopt SBA due to its increased difficulty. According to the teachers who participated in the interviews, SBA-administered courses for teachers should be tailored to their

individual needs. Teaching and studying mathematics, computer use, Internet connectivity, and instructional aids in schools were among the requirements. Tan (2010) discovered that teachers were less willing to use SBA in his study. The consequence of teachers not being prepared to execute the new method is that their marks are neither fair nor valid. This circumstance compromises the validity and reliability of the assessments.

In Malaysia, Veloo, Krishnasamay, and Md-Ali (2015) concluded that teachers' readiness to participate in SBA is good in certain aspects. This is evidenced by teachers' readiness for SBA, their readiness for SBA information, their readiness for SBA feedback, and their readiness to conduct SBA-based assessments. However, teachers are not prepared for the SBA in various other ways. This includes a lack of readiness to provide opportunities for students to interact in class in relation to the lesson content in accordance with SBA, assist students with a low level of achievement (band) in attaining a higher level of achievement, and diversify teaching techniques to ensure that students continue to master skills.

The review examines teachers' understanding of School-Based Assessment (SBA) and its impact on student learning outcomes. The review highlights the importance of teachers possessing the necessary knowledge and expertise to accurately evaluate students' academic progress through SBA. It emphasizes the role of formal training in improving teachers' understanding and bridging the gap between theory and practice. The review also discusses the influence of teachers' attitudes, knowledge, and abilities on the successful implementation of SBA. However, it lacks specific details about the

methodologies used in the studies referenced and does not explore potential limitations beyond teachers' attitudes and knowledge.

Again, the review emphasizes the need for targeted training and support for teachers to effectively implement SBA. It suggests that teachers' understanding of the teaching and learning process, subject matter, and students' cognitive development significantly impact the outcomes of SBA. However, it would benefit from including studies from a wider range of countries and addressing additional factors that may affect SBA implementation, such as time constraints and resource availability. Further research is needed to explore effective training strategies and support systems for teachers in order to enhance their readiness and proficiency in utilizing SBA.

**Challenges faced by teachers in implementing School Based Assessment**

One of the most major challenges that teachers in primary schools needed to surmount in order to successfully embrace SBA was the extremely high number of pupils that were packed into each classroom (Nitko, 2001). The findings of the formative assessment research that was conducted on the implementation of the SBA pilot programme at the basic school level in Zambia provided additional information concerning this challenge that was encountered by teachers (Kapambwe, 2006). The enormous class sizes that are common in most basic schools were regarded as a serious issue by teachers. It is not unusual to encounter classes with a student population of sixty or more in the classrooms. Teachers reported that the amount of work they needed to complete increased as a result of the need that they grade and keep track of the learners' improvements.

According to a report that was published in 2013 by the Hong Kong Professional Teachers' Union (PTU), the workload that is about to be imposed by the SBA is stressful for both the teachers and the pupils. This is because the SBA plans to increase the number of subjects that students are required to take. When it comes to the student, there is a great demand for SBA in terms of both the quality and quantity of it, and this demand might sometimes surpass the student's ability. In addition, the substantial amount of work that resulted from SBA frequently resulted in more class time, which consequently prevented students in Zambia from participating in co-curricular activities (Kapambwe, 2006). Teachers, on the other hand, are impacted in a similar manner as a result of hosting the additional lessons and grading a considerable quantity of SBA work given by students. This is because the number of lessons and the amount of work has increased.

Etienne (2007) in Malaysia made the observation that a significant number of teachers in the schools continued to practice continuous testing by administering assessments or tests at the end of the first and second months of the school year. This was the case despite the availability of guidelines encouraging teachers to practice SBA as well as extensive in-service training for teachers. This was despite the fact that there were guidelines available encouraging teachers to practice SBA (Etienne, 2007). A significant percentage of educators were not aware of the importance of giving assessments on a recurrent basis, such as once every week or fortnight, or at the conclusion of each unit of study.

In spite of the fact that SBA should be appropriately integrated into the processes of teaching and learning, the vast majority of teachers considered

that SBA necessitated a substantial amount of additional time. The excessive amount of time that teachers in Malaysia had to spend on remediation and enrichment became a source of concern for them, and many educators were sceptical that they would be able to complete the curriculum if they continued to employ school assessment methods (Etienne, 2007).

Because of the erratic attendance of some students, absenteeism was another challenge that stood in the way of the efficient management of pupil participation in SBA records. Yoloye (1991) conducted a study that came to the conclusion that this problem is even more severe in rural areas, where some students avoided going to school out of fear that they would have to complete assignments that were extremely difficult. Absenteeism among students often results in their leaving school altogether at some point in the future.

According to the findings of a number of researches (Chen 2003; Edelenbos and Kubanek-German 2004; Hsu 2005), factors that may influence teacher SBA practices include demographics, teacher beliefs, teacher training, class size, and teacher experience in actual classroom instruction. Yoloye (1991) demonstrates that a teacher's understanding, attitudes, perspectives, and perceptions are inextricably linked to the evaluation procedures that they employ in their classroom. These are the ideas that educators hold concerning the pedagogical benefits of establishing classroom assessment and the educational advantages of using SBA in the classroom.

In addition, research conducted by Chen (2003), Edelenbos and Kubanek-German (2004), and Hsu (2005) emphasizes the significance of teacher training in classroom management as a crucial factor that can

influence teacher SBA practices. This research highlights the importance of teacher training in classroom management as a crucial factor that can influence teacher SBA practices. In a similar vein, Brown (2004) emphasizes the need of classroom evaluation as one of the most essential requirements for continued teacher professional development. According to Davison, (2007), the fact that resources for SBA are not readily available presents a problem for a lot of educators. Because of this, teachers are unable to implement SBA in the appropriate manner. As a result, it is absolutely necessary to gain an understanding of the ideas, views, perceptions, and beliefs held by teachers regarding SBA, in addition to the challenges that are associated with various classroom assessment practices, in order to effectively plan and implement appropriate teacher professional development.

The quantity of knowledge that teachers have regarding the application of SBA has a direct influence on the learning circumstances and outcomes that students experience while they are enrolled in educational institutions. In the research done by McMillan (2000), it was emphasized that in order for teachers to be able to provide evaluations on the learning of their students, they need to have the information and understanding that is necessary. According to what he found, instructors who do not have sufficient knowledge on evaluations are unable to effectively integrate it into their teaching in a way that would be beneficial to their students. In addition to this, they were unable to make use of efficient methods, procedures, and tactics in order to enhance the capabilities of their students.

According to Cheah (2010)'s findings, the most difficult obstacle to overcome when administering the SBA was the knowledge, abilities, and

attitudes of the teachers. He stated that instructors are able to learn new knowledge by participating in formal training in the form of workshops or seminars, which helps them to satisfy the objectives of the newly implemented evaluation system for the Malaysian curriculum. The divide between theory and practice could be narrowed with the help of formal training as well.

There is a problem with employees that does not have the necessary qualifications to implement and run SBA. According to the findings of a study that was conducted by Davison (2007), on the procedures of SBA, a great number of educators do not have the essential knowledge or abilities to create accurate assessment instruments that can be used to evaluate behavioural outcomes across all three domains. In order to demonstrate compliance with the standards of SBA, the full potential of each and every student must be evaluated by assessments of the student's cognitive, emotional, and psychomotor abilities. Regrettably, the vast majority of educators do not have adequate expertise of emotional and psychomotor assessment. As a result of this, there is a chance that the overall capability of the student won't be examined at all. In addition, teachers who are directly involved in the observation, evaluations, and records lack knowledge of the computer that may be used to maintain the information, and they also lack knowledge of what SBA actually refers to in its most fundamental form.

In a similar vein, John (2002) found that in order for teachers to improve the levels of comprehension of their students, they needed to be informed and have a clear grasp about the components of the SBA. This was necessary in order for teachers to improve the levels of comprehension of their students. In a similar vein, Antonio (2008) found out that in SBA, teachers are

expected to have the expertise to evaluate their students in order to be in compliance with the legislation. This was discovered in the same line as the previous point. This is because teachers are responsible for a significant portion of the evaluation process for their students.

Other studies have also placed an emphasis on the expertise of teachers and the methods that may be used to improve their knowledge in order to properly apply SBA. Ismadiah (2012) discovered in her research that was carried out in Masaka, Uganda, that teacher participation in seminars, courses, and briefings is a significant factor in determining the level of knowledge and comprehension of SBA implementation processes that teachers possess. This was one of the findings that she came to while conducting her research in this location. Additionally, he discovered that an intimate connection exists between SBA and knowledge and comprehension. In a similar vein, educators who do not participate in training sessions have a lower level of expertise on the administration and assessment of SBA. These educators were all set to put the SBA into action in order to lend a hand in bringing about the organization's heightened level of success.

Another obstacle to overcome is that of plagiarism. Students are tempted to duplicate work from the internet in order to save time in the face of a tight timetable and demanding workload. This creates additional work for teachers who must cross-check references (Antonio, 2008). These educators were all set to put the SBA into action in order to lend a hand in bringing about the organization's heightened level of success.

According to the findings of a study that was carried out in Ghana by Amoah (2005) to determine the contribution of continuous assessment to

student learning in mathematics in Senior Secondary schools in Birim South District, Ghana, he found that a significant amount of stress is placed on teachers as a result of the filling out of assessment forms by students. The study was carried out to determine the contribution of continuous assessment to student learning in mathematics in Senior Secondary schools in Ghana. Ghana served as the location for the research. Some of the teachers were found to be dishonest after it was discovered that the scores that were submitted in the assessment forms were compared with the scores that were written in the students' exercise books. The scores that were reported in the students' end-of-term Report Books as continuous assessment scores were discovered to be inflated when compared to the actual scores that were recorded in the students' exercise books. It was brought to his attention that, based on the interviews with educators, a number of them had mentioned that they spent the majority of their time recording students' grades not only at school but also at home. Even some of them remained recording even though it was the Christmas season. He reported that as a result of the preceding, teachers are under a significant amount of pressure when it comes to compiling and recording marks.

The "appalling prejudice" that exists in the existing grading system for SBA is the motivation behind the proposal made by teachers for a more uniform grading system across all courses. This is despite the fact that they have no intention of intentionally giving out lenient grades (Kerr-Philips, 2007). At the London Festival of Education in 2012, the English Minister of Education, Michael Gove, responded to a question concerning the efficiency of SBA by saying, "if education cannot be externally assessed, it is play." As a

result, his recent actions to lessen the weight of SBA have resulted in an improvement in the quality of summative assessments in the United Kingdom (Downs, 2012). According to Kolo (2014), further challenges include teachers' incompetence in retaining records, the absence of record sheets, and glaring breaches in safeguarding the confidentiality of SBA records. All of these factors contribute to a lack of accountability. All of these issues were brought to light by the fact that record sheets were not available.

The review presents a comprehensive overview of the challenges and critiques associated with the implementation of School-Based Assessment (SBA) in primary schools, revealing a significant conceptual gap. This gap becomes evident through the identified obstacles, such as large class sizes, increased workload and time constraints, absenteeism, and teacher-related factors like lack of understanding, qualifications, and expertise. These challenges highlight the urgent need to bridge the conceptual gap in SBA implementation. To address this gap, the review emphasizes the importance of teacher knowledge, training, and support in effectively implementing SBA. It stresses the significance of providing teachers with the necessary resources and professional development opportunities to enhance their understanding and application of SBA. Additionally, the review draws attention to the issues of plagiarism, grading bias, and the need for accountability and proper record-keeping, further underscoring the need for comprehensive solutions to bridge the conceptual gap.

By actively addressing these challenges and closing the conceptual gap, policymakers and educators can ensure a more seamless integration of SBA into primary school education. This will require targeted interventions to

enhance teacher competence, promote student engagement, and establish reliable assessment practices. Ultimately, closing the conceptual gap will lead to improved educational outcomes, fostering a more effective and inclusive learning environment for students in primary schools.

**Ways to improve School Based Assessment**

It is imperative that teachers have access to pre-service and in-service professional development opportunities in order to raise their overall level of expertise in relation to school-based evaluations (Craig & Perraton, 2003). Experts in the field of education warn that if teachers are not well-equipped and confident in their work, they are more likely to give in to pressure and corruption from parents who want good grades for their children or they are more likely to inflate scores because they do not wish to be held accountable for their students' failure. If teachers are not well-equipped and confident in their work, they are more likely to give in to pressure and corruption.

Students should receive feedback on how well they grasp the content as well as areas in which they need to improve, and teachers should receive assistance in developing more effective lesson plans if the SBA is to be considered effective (Burton, 1992). Students who participate in their own evaluation contribute to an increase in the assessment's overall relevance. Students are more likely to agree that the assessment effectively evaluates their knowledge if they have an active role in the development of scoring criteria, in conducting self-evaluations, and in defining goals for themselves.

In a study in Uganda, John (2000) found that students have the ability to keep their evaluations in a variety of personal locations, including personal libraries, on CD-ROMs, on flash drives, and in personal files. SBA practice

work may also be assigned by teachers in order to encourage more student engagement in the SBA (including any practice or "class test, quiz" SBA activities they complete outside of class, such as with a group of friends). Students have the ability to analyse or assess themselves using these personal speaking examples, as well as conduct a self-evaluation of their participation in SBA events using these examples. It is possible to stimulate their interest and promote their participation in SBA by showing them the work of other pupils.

Students need to be aware of their goals in order to earn the highest possible score or grade in their assessment practices, therefore this is an extremely important concept for them to understand (Etinne, 2007). Peer assessment of the class exercise or class text, as well as SBA activities, in which students have the opportunity to evaluate the performance of fellow students on SBA-style tasks using the current SBA criteria, is an effective way to increase student engagement in SBA (Mctighe & O'connor, 2005). SBA activities involve students having the opportunity to evaluate the performance of fellow students on SBA-style tasks using the current SBA criteria.

It is essential to assess students based on what they have been taught and to directly link their performance to course outcomes. Teachers or instructors must allow students to demonstrate their knowledge and abilities through a variety of performances. When providing assessment activities, teachers should ensure that the criteria for making judgments are clear and unambiguous, and that they promote the development of accurate and consistent judgments (MacGraw, 2006).

The review highlights the need for improvement in school-based assessment practices. It emphasizes the importance of teacher professional development to ensure their expertise and confidence, reducing the likelihood of succumbing to external pressures. Active student involvement, including feedback, goal-setting, and participation in developing scoring criteria, enhances the relevance and effectiveness of assessments. Students' ability to utilize personal resources and engage in peer assessment further promotes their participation and interest in assessment activities. Additionally, aligning assessments with course outcomes and ensuring clear and unambiguous criteria facilitate accurate and consistent judgments. Addressing these areas will contribute to enhancing the effectiveness of school-based assessment.

**Empirical Review**

In this part of the study, a review of empirical research on SBA knowledge and application in the classroom is presented.

**Teachers' level of knowledge on SBA**

Teachers play a significant influence in students' school assessments; therefore, their understanding of SBA implementation has a strong link with students' learning performances (Veloo et al. 2015). Teachers are crucial to the assessment of students, and they must possess the necessary knowledge to evaluate students' classroom learning (Antonio, 2008). According to Cheah (2010), the knowledge, abilities, and teacher attitudes were the major obstacles to implementing the SBA. According to what he said, teachers who participate in formal training in the form of seminars or workshops would be able to fulfil the requirements of the new evaluation system for the Malaysian curriculum.

Therefore, receiving a formal education would help in reducing the gap that exists between theory and practice.

Awonyi (2016) conducted research into the perspectives of mathematics instructors in Ghana's Cape Coast City with regard to SBA. A questionnaire and an interview were used in this study to collect data. The research was conducted using a descriptive research design and a sequential mix approach. In addition to this, it investigated the challenges that senior high school math teachers face while putting SBA into practice as well as potential solutions to these problems. For the purpose of the study, samples were taken from a total of 110 mathematics teachers from 10 senior high schools in the Cape Coast Metropolis. The survey found that few mathematics teachers understood the SBA standards, and as a result, many of them continue to use the out-dated continuous assessment method rather than SBA.

As problems that need to be addressed by the School Board of Trustees, the study cites a shortage of assessment tools, student absenteeism and truancy, insufficient resources for record-keeping, and students who copy each other's homework and classwork. The challenges included, but were not limited to, favouritism by teachers, teachers entering phony test results when they were not in close proximity to the student or the student's parents, insufficient time for test development, insufficient time for instructional time, and a lack of knowledge in assessment methodologies. 63% of respondents to the study suggested SBA in-service training as an approach to increase instructors' awareness of SBA and competency with assessment techniques.

Nugba (2012) investigated the implementation of the SBA in Obuasi Municipality in terms of its success, repercussions, and challenges. A

descriptive survey with a sample size of 130 individuals was undertaken. Participants consisted of 111 core subject teachers from junior high schools, 13 head teachers who were randomly picked, 5 circuit supervisors who were purposefully recruited, and one assessment officer who was purposefully selected. The data were acquired through the use of a questionnaire, an interview guide, and an observation guide. The study indicated that SBA had positive benefits on the classroom learning approaches of pupils. The study did discover, however, that teachers were not using the suggested methods while evaluating their pupils in SBA format. The lack of SBA training for teachers, insufficient facilities and equipment, the absence of SBA guidelines, and a lack of material support from GES were also mentioned in the report as obstacles experienced by the teachers.

Additionally, Veloo et al. (2015) conducted a study to determine the level of teachers' preparation for implementing SBA. The survey was conducted in 15 daily secondary schools in Kedah, the northernmost state of Malaysia and a state that shares a border with Thailand. 155 educators were chosen at random from a pool of 260 educators. The expertise and readiness of instructors to adopt SBA were evaluated in this study using two questionnaires. The survey was developed from Alabah (2012) and was intended to assess the readiness (30 items) and knowledge (30 items) of Nigerian teachers with reference to SBA. This survey utilized a 4-point Likert scale with the options strongly disagree to strongly agree. The findings show that the teachers' knowledge in terms of the five dimensions — conducting SBA, bands in SBA, knowledge of evaluating SBA, procedural knowledge of SBA, and implementation of SBA — is accurate. As indicated by the general

mean for teachers' knowledge of SBA, all teachers agree that they have a strong understanding of SBA (3.27). The mean (3.09) suggests that all teachers concur that they are ready to implement SBA. Comparing the two methodologies reveals that teachers are less equipped to administer the SBA, while having higher experience. The inference is that instructors believe their level of knowledge is incomplete and that the educational authorities should take greater steps to increase teachers' confidence in their degree of preparedness.

An additional research project that was carried out by Fook and Sidhu focused on the knowledge and experience of Malaysian ESL (English as a Second Language) instructors who were responsible for administering the SBA (2012). Such a study was considered urgent and important since it might give academics, professionals, and policy makers a useful picture of testing and assessment. In order to assess the level of expertise and ideal practises of ESL instructors in SBA, a descriptive study design was used. According to the findings of the survey, the vast majority of respondents possessed sufficient knowledge to develop their own tests; however, one third of them admitted to frequently using the "cut and paste" method and expressed concern about the validity and reliability of the tests they had developed. This leads one to believe that there are a number of problems pertaining to the SBA that require immediate resolution.

Iddrisu (2020) conducted research on the subject-matter authority (SBA) knowledge and practices of educators in the Savelugu Municipality in Northern Ghana. In order to carry out the inquiry, a descriptive survey methodology was chosen. 270 elementary school teachers from the Savelugu

Municipality were chosen through a process of random selection. The data collection instrument consisted of a 44-item questionnaire. Independent t-tests, ANOVA, means, standard deviations, frequencies, percentages, and means were among the statistical methods utilized in the investigation. According to the results of the study, instructors of primary school had an excellent level of SBA comprehension. The usage of SBA has also been confirmed to by educators working in primary schools. The poll revealed, once again, that primary school teachers in the Savelugu Municipality confront hurdles while attempting to implement SBA. The result showed that the teaching experience of the teachers had no effect on either their knowledge of or their application of SBA. The study also found that instructors' understanding of SBA was little to unaffected by in-service training on the subject. In order to lessen the strain on teachers when conducting SBA, it was advised that Ghana Education Service give suitable SBA guidelines to all schools to use as a reference and guide.

According to the findings of a study conducted by Norazman, Nor'ain, and Nur-Fazliana (2012), in order to foster a productive environment for education, instructors need to be highly creative, knowledgeable to a deep level about the subjects they teach, and intelligent in how they present their classes. Teachers have a responsibility to make significant efforts to prevent pupils from routinely delivering results that are not up to standards. According to the findings of the study, educators should take steps to improve their practices in a number of different areas, such as mentoring students, teaching, assessing students, and teaching subject matter. Cheah (2010) emphasized the

importance of teacher expertise and the methods that may be used to improve it in order to ensure that SBA is correctly implemented.

In a study, Ismadiah (2012) found that teachers' participation in briefings, seminars, and courses greatly influences their knowledge of and understanding of SBA implementation processes. Additionally, he came to the realization that SBA, as well as knowledge and cognition, are all intricately connected. In a manner comparable to this, instructors who participated in training sessions were better knowledgeable about managing and evaluating SBA (Ismadiah, 2012). These teachers were ready to put the SBA into action in order to help the SBA realize its more ambitious objectives. Children's cognitive development is influenced by teachers' educational knowledge, according to Bobis and Gould (2000). Teachers' understanding of how children learn had the most impact on the development and learning of children. John (2002) discovered that in order to increase student understanding, teachers required to be educated about and have a thorough understanding of the SBA's components. Similar to this, Antonio (2008) discovered that because teachers were so important in students' assessments, teachers under SBA needed to be knowledgeable about assessing pupils. According to Naimah (2011), instructors must be familiar with administration and implementation at the school level in order to use the tools, rubrics, timetables, and processes that are provided by the Examination Board.

The empirical studies examined teachers' knowledge and understanding of School-Based Assessment (SBA) implementation and identified several gaps in the existing research. Overall, the studies found that while teachers generally had a good understanding of SBA, there were

challenges in effectively implementing it in the classroom. These challenges included a lack of understanding of SBA standards, continued use of outdated assessment methods, insufficient training and support, inadequate facilities and resources, and concerns about the validity and reliability of tests developed by teachers. The studies also highlighted the need for further research on the actual implementation of SBA in classrooms, effective training methods for teachers, perspectives of students and parents, and long-term impact on student learning outcomes. Addressing these gaps in research would contribute to enhancing the implementation of SBA and its effectiveness in improving student achievement.

**Attitudes of teachers towards the application of SBA guidelines**

A person's attitudes are their favourable or negative ideas on a certain subject. Attitudes are influenced by the favourable or negative evaluation of information about an action's outcomes (Ajzen & Fishbein, 2000). There is a relationship and correlation between instructors' attitudes and the usage of SBA, according to studies. Positive instructor views toward the SBA were related to improved application proficiency levels (Teo, 2008). According to Haney, Czerniak, and Lumpe (1996), teachers' attitudes toward behaviour have the greatest impact on their intents to execute reform recommendations in scientific education. Consequently, it is essential to investigate how teachers feel about assessment.

There are teachers who are not prepared to execute the SBA, according to several studies. In Nigeria, Norani and Saifulazri (2010) found that some educators were unwilling to carry out SBAs with their students. Additionally, they discovered that some teachers were unwilling to perform SBA because

they lacked the necessary training, which unintentionally reduced their confidence in doing so. In his research carried out in the United States, Stiggins (2005) found that teachers lack the incentive to implement new assessment systems for the purpose of improving student learning since they do not have access to opportunities to learn effective assessment methods. According to the findings of another research project carried out in Malaysia by Veloo, Krishnasamay, and Md-Ali (2015), teachers are typically well-prepared to take part in SBA.

Ahmedi (2019) conducted research to determine whether or not there is a connection between the ways in which teachers assess students and the methods that are used to evaluate students. The third argument is that there is a relationship that can be scientifically proven to exist between the attitudes and actions of teachers with regard to assessment. A correlation of r=0.620 between the instructors' attitudes and practises regarding formative assessment was found. Compared to teachers who use different assessment methods, the average attitude of teachers toward formative assessment is higher. Educational assessment can be an effective method for improving educational systems (Koh, 2011). However, because these factors are constantly in conversation with one another, its efficacy is dependent on instructors' attitudes, abilities, knowledge, and practises (Calderhead, 1996). Ahenkora (2019) looked at how SBA was implemented in the KEEA district in the Central Region. 200 basic school instructors from ten basic schools were chosen for the study using a quota sampling approach. The study was led by three hypotheses and five research questions. In order to collect information for the study, a questionnaire was used. The findings indicated that teachers

largely agreed that they are knowledgeable about using SBA at regular intervals to raise students' overall performance. Teachers also expressed satisfaction with the way SBA rules were implemented.

Teachers' preparedness for the SBA, teachers' ready for information on the SBA, and teachers' readiness to conduct assessments in accordance with the SBA are indicators of this SBA's ready for feedback. Teachers are not prepared for the SBA in certain other areas, though. This includes a lack of preparation to give students opportunity to interact in class regarding the lesson subject in accordance with SBA, assist students who are performing below grade level (band), and diversify teaching methods to guarantee that students are consistently mastering skills (Ahenkora, 2019).

The review examined teachers' attitudes towards the application of School-Based Assessment (SBA) guidelines. Positive attitudes were found to be associated with improved application proficiency levels. However, some teachers are unwilling to implement SBA due to a lack of training and confidence. Teachers' attitudes and actions towards assessment were found to have a correlation, with higher attitudes towards formative assessment among teachers who use different assessment methods. Teachers' preparedness for SBA, readiness for information on SBA, and readiness to conduct assessments according to SBA guidelines are indicators of SBA's readiness for feedback. However, there are areas where teachers are not adequately prepared, such as facilitating student interaction, assisting struggling students, and employing diverse teaching methods.

However, this review was limited exploration of the specific factors influencing teachers' attitudes towards SBA guidelines. Further research could

investigate the impact of training programs, professional development opportunities, and support systems on teachers' attitudes. Insufficient examination of the relationship between teachers' attitudes and their actual implementation of SBA guidelines. This study could explore how attitudes translate into classroom practices and the factors that mediate this relationship.

**Impact of SBA on pre-service teacher's instructional method**

Assessment, rather than being considered as the end objective of a student's educational experiences, should be seen as a tool that is used to judge how successfully the teaching and learning process is being carried out (Yong & Lim, 2008). It should serve as a mechanism for the accomplishment of academic goals. According to MOE Malaysia, SBA possesses the qualities necessary to satisfy the aforementioned standard. Furthermore, it is the best assessment technique for relieving students' pressure and enabling instructor initiative in evaluating their students (Brown, 2001). In order to get the most out of the assessment and ensure that it has a positive impact, it is necessary for teachers to take part in all four stages of the process, which include planning, gathering information, analysing the evidence gathered, and using the results to make decisions.

All of the aforementioned points to the fact that there has been a significant shift in the evaluation system, which has further led to the necessity for academics, educators, stakeholders, and researchers to give thought to the teaching and learning procedures used in primary schools. Therefore, the engagement of teachers in this new assessment method is of the utmost importance. Instructors are required to employ a variety of instructional tactics and evaluation methods that have a direct impact on the results of the

evaluation (Chan, Sidhu, & Yunus, 2006). This research was also inspired by the question of whether or not SBA is suitable for the educational system that we have.

Teachers are the most qualified individuals to evaluate their students and have a more in-depth understanding of the wider context of the topic being studied, more responsibility has been placed on the shoulders of teachers to develop high-quality assessments that are in line with the learning outcomes. This provides teachers with the opportunity to monitor their students and offer constructive feedback to assist their students in becoming better students overall (Brown, 2001). Based on the results of the evaluation, teachers have the ability to choose whether to move on to a new topic, provide the required support, or send the children who are having the most trouble academically to a class designed just for them. When evaluating the students' progress in learning, teachers are strongly urged to use a wide variety of assessment strategies, such as brief writing assignments, quizzes, question-and-answer sessions, plays, and role-playing games. Every student will be assessed in terms of both their preparedness and their capacity (Davison, 2007; Dietel, Herman & Knuth, 1991). It is the responsibility of teachers to make available to students, in a roundabout way, a wide range of instructional strategies that are proven to be effective (Mansor, 2012). As a result, students are able to advance in accordance with their aptitude, with more capable students going on to the next level sooner and students with lower aptitudes being given more time to learn (Chapman, 2010).

A qualitative case study was conducted by Mansor and Yusoff (2013) to evaluate how SBA facilitates the evaluation of academic progress in Year 1

in three urban Chinese primary schools, which enhances teaching and learning. The information that was acquired from the interviews of three instructors of the Chinese language in Year 1 revealed that teachers had very favourable attitudes of the SBA system in general, and that the system has been beneficial to both teachers and students. There are, however, shortcomings that need to be acknowledged, and adjustments that need to be addressed. The findings revealed that in order for SBA to be effective, teachers need to be creative, employing a variety of teaching strategies and employing a variety of ways for student assessment. This was suggested by the findings. It is necessary to conduct additional research on the topic in order to ensure the smooth operation of the SBA when it is put into action.

According to the study, the implementation of SBA for these Chinese language teachers encouraged personal growth, assisted in the development of good attitudes, enhanced collaboration abilities, and encouraged the use of creative teaching and learning methods.

The implementation of School-Based Assessment (SBA) in primary schools has shifted the evaluation system, emphasizing teachers' involvement in the assessment process. SBA is seen as a tool to evaluate the effectiveness of teaching and learning, and teachers are encouraged to engage in all stages of assessment, employing various instructional tactics and evaluation methods. A qualitative case study focused on Year 1 Chinese language teachers in urban primary schools revealed positive attitudes towards SBA, considering it beneficial for both teachers and students. However, there is a need for teacher creativity in using diverse teaching strategies and assessment methods. Further research is necessary to ensure effective SBA implementation, addressing

limitations such as scope, lack of quantitative data, limited generalizability, the long-term impact of SBA, and teacher training and support.

**Challenges pre-service teachers face in the implementation of SBA**

Omorogiuwa and Aibangee (2017) carried out research on the challenges that SBA practitioners confront and the factors that influence the successful deployment of SBA. From a pool of 876 educators working in 45 public junior secondary schools in Benin City, Nigeria, a random sample of 150 teachers was chosen to participate in the selection process. The research approach that was used for this study was a survey. In order to collect data, a questionnaire consisting of 14 questions regarding the factors that influence the efficient implementation of SBA was used. According to the findings of the study, the level of awareness that teachers have regarding SBA, the attitude of school administration, and the way that instructors manage their classrooms in relation to SBA all have a negative impact on the successful implementation of SBA. According to the findings of the study, partiality, inflated SBA results, overcrowded classrooms, a high teaching load, and a lack of time all had a detrimental impact on the efficient use of SBA in secondary schools located in the city of Benin.

Veloo and Md Ali (2016) also looked into the difficulties instructors encountered when adopting SBA in Physical Education (PE) in the Malaysian educational system. 15 secondary day schools in one district of Kedah participated in the study. 25 teachers were purposefully chosen, and 45–1 hour-long interview was conducted with each of them. The Examination Board, Ministry of Education Malaysia (2011)'s frequently asked questions were adapted into ten core questions. According to the findings, there were

three main problems that physical education teachers had to deal with: a lack of adequate core knowledge concepts and processes, subpar facilities and equipment for PE assessments, and insufficient time for PE assessments. On this SBA model, a feasibility study was carried out in 2009–2010. This strategy was found to be "very labour intensive" for classroom teachers, especially due to factors like extremely large class numbers and a lack of adequate training to prepare the kids, among others (ADB, 2015).

However, it's interesting to note that Purvin (2011) found four responses to her research questions in another recent study on Bangladeshi students' understanding of SBA that was part of her MEd thesis. These are listed below: (1) SBA was being rehearsed according to schedule. (2) The characteristics and goals of SBA were well understood by the students. (3) They held the opinion that SBA had a significant impact on how they learned, developed their talents, and behaved well. (4) The implementation of the SBA was hampered by a lack of basic infrastructural and manpower facilities, including as classrooms that were too small, insufficient instructional aids, a scarcity of teachers, and too long lessons.

Even though the aforementioned studies all came to different conclusions regarding the attitudes of stakeholders toward SBA and the application of SBA in practice, they were able to agree on the existence of certain roadblocks that impeded the process of implementing SBA in secondary schools in Bangladesh. Furthermore, none of these studies examined the situation holistically by incorporating respondents who were instructors, head teachers, and students. As a result, Purvin (2011) advised upcoming academics who are looking into the adoption of SBA to consider the

perspectives of both teachers and students. Therefore, the need to conduct empirical study on teachers and pre-service teachers to explore the challenges they face. Within the scope of this research on future teachers in training, the originality of this study can be broken down into several different categories. To begin, there are not many research that are relevant to this context, and none of the studies that are relevant have been done to investigate the understanding of pre-service teachers regarding the application of SBA. Second, none of these studies included the perspectives of future instructors in their research; as a result, the current study fills in the gaps left by previous research in this area.

These empirical studies have shed light on the challenges faced by pre-service teachers in implementing School-Based Assessment (SBA). One study conducted in Benin City, Nigeria, by Omorogiuwa and Aibangee (2017) highlighted factors such as teachers' limited awareness of SBA, negative attitudes from school administration, and ineffective classroom management practices as hindrances to successful SBA implementation. Issues such as biased practices, inflated results, overcrowded classrooms, high teaching loads, and time constraints were also identified as detrimental factors in secondary schools. Another study by Veloo and Md Ali (2016) focused on physical education teachers in the Malaysian educational system and revealed difficulties related to inadequate core knowledge, subpar facilities and equipment for assessments, and insufficient time for conducting assessments. Both studies emphasized the need for addressing these challenges to ensure effective SBA implementation.

However, it is important to note that these studies had certain limitations. They lacked comprehensive perspectives by not including the viewpoints of teachers, head teachers, and students together. Furthermore, the studies were geographically limited to specific regions, and there is a scarcity of research specifically exploring the challenges faced by pre-service teachers in understanding and implementing SBA.

**Chapter Summary**

The results of SBA are relevant to pupils' overall success. In May 1968, students protested final exams in France, and Etienne (2007) argued that this provided the ideal chance for students to draw attention to the unjust and dangerous final evaluation that was taking place in their institutions. They made it clear that these tests only evaluated current performance and did not account for work done over the course of the year. Students emphasized the possibility that even the well-prepared student could experience difficulty on the day of the exam, and they advocated for continual evaluation in order to mitigate these risks. Although obstacles are likely to arise during the implementation of the recap exercises as well, students emphasized the possibility that even the well-prepared student could experience difficulty.

Additionally, the research that Graume and Naidoo (2004) conducted on SBA in Uganda revealed that high school pupils are evaluated on an annual basis, on a semi-annual basis, and once the academic year has come to a close. Carnoy (1999) asserts that consistent use of assessment instruments provides evidence of whether or not progress is being accomplished. Ogunnyi (1984) also emphasised that evaluation is cumulative in that any choice made at any time about any kid is aware of the prior made a choice regarding him.

Additionally, on-going evaluations give students maximum possibilities to learn and occasionally display the acquired knowledge, skills and attitudes during teaching and learning process.

SBA, however, is also characterised by a few difficulties. Large class sizes were one of the biggest obstacles basic school instructors experienced when implementing SBA (Nitko, 2001). The findings of the formative assessment study that was conducted on the implementation of the SBA pilot programme at the basic school level in Zambia gave additional information regarding these challenges that teachers were confronted with (Kapambwe, 2006).

Large class sizes were highlighted by teachers as a serious difficulty in most elementary schools. In the classrooms, courses with 60 students or more are not uncommon. Teachers reported that when they had to mark assignments and keep track of every student's progress, their burden increased.

# CHAPTER THREE

# RESEARCH METHODS

## Overview

This chapter describes the methodology of the study. This part offers a description of the research design, study area, population, the sample and the sampling procedure, the data collection instruments, data collection procedures and data processing and analysis.

## Research Design

The study employed a descriptive cross-sectional research design. In a cross-sectional design, aggregate data are collected from different respondents at a particular point in time. This type of design is one of the mostly widely used. This type of design has some advantages that is very suitable for this study because it helped to get large factual numeric and descriptive data from a larger population at a goal. This research approach was selected since the study described pre-service teachers' knowledge in SBA. This is an excellent method for gathering a great deal of information concerning the size of the sample.

The descriptive research design was deemed best for the study because, according to Cohen, Marrison and Manion (2004), in descriptive survey design, researchers gather data at a particular point in time with the intention of describing the nature of existing conditions or identifying standards against which existing conditions can be compared. As recommended by Leedy and Omrod (2010) this method is suitable for purposes of making generalisations from a sample to a population so that

inferences could be made about the characteristics, opinions, attitudes and past experiences of the population.

This design was less expensive, and more economical (Cohen, Manion & Morrison, 2011) as well as being able to use different methods and approach to obtain data from variety of respondents in a single study (Levin, 2006). Descriptive survey design provides a more accurate and meaningful picture of an event or phenomenon and seeks to explain people's perception and behaviour on the basis of data gathered at a particular time (Frankel & Wallen, 1993).

Despite the strengths of the descriptive survey mentioned above, Osuola (2001) argued that "designing a quality investigation requires particular attention to main factors: appropriate sampling procedures, and precision in defining terms in eliciting information" (p. 20). Notwithstanding the difficulties and setbacks of descriptive survey design indicated above, it was still deemed most appropriate and applicable for the study. It was appropriate for the study to gather accurate data on teachers regarding their knowledge on SBA.

**Study Area**

The Komenda and Foso Colleges of Education, located in the KEEA and Assin Foso municipalities, respectively, were the locations in the Central Region where the research is carried out. The Atlantic Ocean (Gulf of Guinea) can be found to the south of the KEEA Municipality, while the Cape Coast Metropolitan Area can be found to the east, the Twifo Hemang Lower Denkyira District can be found to the north, and the Mpohor District and the Shama District can be found to the west of the KEEA Municipality. Census

results from 2021 indicate that the Municipality has a total population of 166,017 people, with 80,570 males and 85,447 females.

There are 80,570 males and 85,447 females. It extends between the longitudes 1° 05' East and 1° 25 west as well as the latitudes 6° 05' North and 6° 40 South and encompasses approximately 295 km2. Processing fish is a significant source of income for a large number of people in that area, mainly women, who live along the coast and in other parts of the district's interior where fishing is practiced.

**Komenda College of Education**

The Komenda College of Education is a tertiary educational school that offers a comprehensive range of teacher education programs. It is situated in the town of Komenda in the Central Region (Ghana). In accordance with the three primary tenets established by the college's founding fathers-Excellence, Service to God, and Service to Mankind-the institution has achieved a great deal of success both in the academic and the social spheres. In terms of education, the college has demonstrated its prowess with a tour de force, which has contributed to her being ranked among the top educational institutions in the country. This is evidenced by the findings of the tests that was administered by the Institute of education at the University of Cape Coast.

On the other hand, Assin Foso Municipality is one of Ghana's 261 Metropolitan, Municipal, and District Assemblies (MMDAs), and its administrative centre is Assin Foso. It is one of 20 MMDAs in the Central Region. The Assin Foso Municipality shares borders with Twifo Atti Morkwa District to the west, Assin South District to the south, Asikuma Odoben Brakwa District and Ajumako Enyan Esiam District to the east, Upper

Denkyira East Municipal to the north-west, and Adansi South District to the north. According to the population and housing census of 2021, the Municipality has a population of 88,753, with 43,549 males and 45,204 females. Manufacturing, metal fabrication, and the processing of agricultural and forestry products are some of the economic activities that takes place in the municipality.

**Foso College of Education**

On November 15, 1965, under the direction of the late Mr. R. R. Essah, it was established by the first republican administration of Dr. Kwame Nkrumah as a college for the education and training of teachers that was open to both male and female students. In its fifty-four years of existence, Foso College of Education (FOSCO, as the College is affectionately called by its numerous patrons and stakeholders), has been granted the dispensation and concession to pilot every major pre-tertiary and now quasi-tertiary teacher training program in Ghana. The College can be found one kilometre south of the Cape Coast to Kumasi highway on the south-eastern outskirts of Assin Foso. The land area it occupies is one kilometre squared.

FOSCO is located in the middle of four major universities: the University of Cape Coast, which is only an hour away by car; the Kwame Nkrumah University of Science and Technology in Kumasi, which is two hours away by car; the University of Education in Winneba, which is also two hours away by car; and the University of Ghana in Legon (2.5 hours' drive). Because of this circumstance, there are chances for research, the exchange of ideas and experiences, as well as various forms of collaboration with these institutions of higher learning, which helps to create an environment that is

conducive to the pursuit of knowledge. The College is currently able to boast of having 38 teaching staff members and 42 non-teaching staff members that are good at managing the 1,185 students.

**Population**

The population that was intended to be the focus of the study fell into two distinct categories of groups. To be specific, pre-service teachers studying at Komenda and Foso Colleges of Education in the Central Region of the country. Komenda College of Education had 1778 students (level 100-400) whiles Foso College of Education had 1590 (level 100-400). The total number of students body of enrolled in the two colleges were 3368 (College database, 2022). The accessible population for the study was level 400 students from both colleges of education. This is because only level 400 students had done their off-campus teaching practice. Therefore the accessible population is 750 students. Table 2 provides a breakdown of the student body for both of the aforementioned colleges.

Table 2: *Target population of Foso and Komenda Colleges of Education*

| **College** | **Level** | **Population** |
|---|---|---|
| Komenda College of Education | | |
| | 100 | 611 |
| | 200 | 437 |
| | 300 | 380 |
| | 400 | 350 |
| **Sub total** | | **1778** |
| Foso College of Education | | |
| | 100 | 290 |
| | 200 | 450 |
| | 300 | 450 |
| | 400 | 400 |
| **Sub total** | | **1590** |
| **Total** | | **3368** |

Source: Field Data (2022)

These samples are often supposed to be chosen such that the study's conclusions can be extended to the overall population. Out of a population of 750, Kreijcie and Morgan (1970) recommended a sample size of 254. After the minimum required sample size has been identified, it is necessary to provide additional allowances to cater for potential non-response subjects (Bujang, 2021). A minimum required sample size simply means the minimum number of subjects a study must have after recruitment is completed. Thus, researchers must ideally be able to recruit subjects at least beyond the minimum required sample size. Therefore, 50% of the sample size was added to the sample in order to cater for any missing data. The sample size for the study was 381 level 400 students.

The researcher decided to use a multistage sampling approach in order to conduct the study because of the features of the population that was being studied. When performing research on extraordinarily large populations, one method of sampling that is sometimes used is called "multi-stage sampling." This allows for a more accurate representation of the population. In this study, the accessible population was the set of all final year pre-service teachers in Komenda and Foso Colleges of Education.

The first sampling stage was purposive sampling. The selection of students for the study was done using purposive sampling. Final year students were purposively selected because they had experience in Off Campus teaching practice. Therefore, level 400 students from the two colleges of education were used in the study.

In the second step proportionate stratified sampling was used to determine the number of students to pick from each school. This is necessary

since the various schools vary in the numerical strength of the students. The number of students in each school (n) was divided by the total number of students in the two schools (N) and multiplied by the required sample size (S) ($\frac{n}{N}\ X\ S$). This is presented in Table 2.

The third stage involved the use of convenient sampling technique. Convenience sampling involves using respondents who are "convenient" to the researcher (Galloway, 2005). There is no pattern whatsoever in acquiring these respondents, they may be recruited merely asking people who are present in the street, in a public building, or in a workplace, for example. This strategy was considered appropriate because final year students were used in the study and due to their busy schedules, such as preparing for their final examination, it was impossible to use other strategies to engage them. Therefore, questionnaires were distributed to final year students who were available at the time of visiting the schools.

Table 3: *Sample size*

| **College** | **Population** | **Sample** |
|---|---|---|
| Komenda College of Education | 350 | $\frac{350}{750} X\ 381 = 178$ |
| Foso College of Education | 400 | $\frac{400}{750} X\ 381 = 203$ |
| **Total** | **750** | **381** |

Source: Field Data (2022)

After the administration and collection of questionnaires, a total of 370 questionnaires were retrieved. This gave a return rate of 97.1%.

**Data Collection Instruments**

A questionnaire is the tool that was used to obtain the data that is needed. The selection of the questionnaire was based on the reasons provided by Cohen et al. (2007), which indicated that it is helpful for gathering survey

data, offers ordered numerical data, and may be administered without the presence of the researcher. Questionnaires collect standardized and open responses from a large sample or population on a variety of topics; they can be cost-effective, dependable, valid, speedy, and simple to fill out (Cohen, Manion, & Morrison, 2018). The questionnaire contained only closed-ended questions.

In order to acquire the essential data, the questionnaire was carefully prepared depending on the objectives of the study. The questionnaires were selected following a comprehensive review of the pertinent literature on teacher knowledge of SBA. Cronbach's Alpha was utilized to assess the reliability of the questionnaire. According to Cronbach (as cited in Ebel & Frisbie, 1991), the alpha coefficient can evaluate the reliability of a measure composed of items with varied point values, such as essays or attitude scales with intermediate response possibilities, such as strongly agree and strongly disagree. Regarding validity, the questionnaire was given to an English Language instructor for examination of the appropriateness of the language. To improve the questionnaire's validity, ambiguity and grammar problems were examined and corrected. However, the replies from the pilot validation tests served as evidence of the instrument's validity.

The questionnaire was in four sections and made up of 48 items. The questionnaire elicited pre-service teachers' response on their background characteristics, their knowledge level on SBA, the extent to which they practice school-based assessment, and the associated challenges of practicing SBA. The Likert type scale was chosen because it has the advantage of being relatively easy to develop and also sensitive to differentiation of responses.

On the Section A of the questionnaire are four items which requested information on the background of the respondents, that is, gender, age, location and subject taught.

**Teachers' knowledge in school-based assessment**

Section B consisted of 9 items which sought to elicit information on teachers' knowledge in school-based assessment. This was adapted from (Iddrisu, 2020). Out of 15 questions, a total of 9 questions were maintained. Questions were reworded to ensure easy understanding. For instance item 13 on the original instrument was "*School-based assessment standardized the practice of internal school-based assessment in all schools*", this was reworded to "*SBA standardizes the practice of assessment across the nation's schools*" as item one in this study. All items were positively scored in this section. On the right side of each item is a row of boxes and participants were required to respond by ticking Strongly Agree-SA, Agree-A, Disagree-D and Strongly Disagree-SD to the statements on the left side.

**Teachers' attitude towards school-based assessment**

Section C consisted of 6 which elicited information on teachers' attitude towards school-based assessment. This was adapted from (Ahenkora, 2019). Out of 11 questions, a total of 6 questions were maintained. Questions were reworded to ensure easy understanding. For instance item 1 on the original instrument was *"Have adequate time for SBA implementation"*, this was reworded to "*I have sufficient time to implement SBA in the classroom*" as item one in this study. On the right side of each item is a row of boxes, participants were required to respond to level of practice of SBA in their

teaching with Always, Very Often, Sometimes and Never to each of the statements by ticking. All items were positively scored in this section.

**Impact of school-based assessment practices**

Section D consisted of 14 items which elicited information on the impact of school-based assessment practices. This was adapted from Ahenkora, (2019). Out of 9 questions, a total of 14 questions were obtained. Questions were reworded to ensure easy understanding. For instance item 1 on the original instrument was *"The use of SBA has improved my teaching"*, this was reworded to "*SBA has improved my teaching techniques*" as item one in this study. On the right side of each item is a row of boxes and participants were required to respond by indicating the extent to which they Strongly Agree-SA, Agree-A, Disagree-D and Strongly Disagree-SD to the statements in the level of challenges they faced in practicing SBA.

**Methods of school-based assessment practices**

Section E consisted of 7 items which elicited information on the methods of school-based assessment practices. This was adapted from Ahenkora, (2019). Out of 7 questions, a total of 7 questions were obtained. Questions were reworded to ensure easy understanding. For instance item 1 on the original instrument was *"SBA modes and time of administration are being followed"*, this was reworded to "*I am able to adhere to SBA modes without difficulty*" as item one in this study. On the right side of each item is a row of boxes and participants were required to respond by indicating the extent to which they Strongly Agree-SA, Agree-A, Disagree-D and Strongly Disagree-SD to the statements in the level of challenges they faced in practicing SBA. I am able to adhere to SBA modes without difficulty.

**Challenges of school-based assessment practices**

Section F consisted of 10 items which elicited information on the challenges of school-based assessment practices. Out of 12 questions, a total of 10 questions were obtained. Questions were reworded to ensure easy understanding. For instance item 1 on the original instrument was *"Large number of students prevents me from implementing school-based assessment"*, this was reworded to "*It is quite tough for me to effectively execute SBA due to the large number of students*" as item one in this study. On the right side of each item is a row of boxes and participants were required to respond by indicating the extent to which they Strongly Agree-SA, Agree-A, Disagree-D and Strongly Disagree-SD to the statements in the level of challenges they faced in practicing SBA.

**Pilot-testing of Instrument**

A well-executed pilot that provides a defined set of aims and objectives inside a formal framework supports methodological rigor and ensures that the work is scientifically credible and publishable (Lancaster, Dodd, & Williamson, 2004). Accra College of Education in the Greater Accra Region was used as a location for pilot testing of the data collection instrument. A total of 38 students were used (10%). This college was chosen due to its proximity to the research area and also demonstrating demographic similarities between the two colleges of education.

Table 4: *Summary of the Reliability Coefficient of the Items*

| **Scale** | | **Reliability** | | |
|---|---|---|---|---|
| | **No of items** | **Original** | **Pilot** | **Final data** |
| Knowledge in SBA | 9 | .72 | .838 | .787 |
| Attitude towards the Application of SBA Guidelines | 6 | .76 | .802 | .745 |
| Impact of SBA on Pre-Service Teachers' Instructional Methods | 14 | .86 | .806 | .837 |
| Methods and Process of Implementing SBA | 7 | .71 | .608 | .529 |
| Challenges of SBA | 10 | .73 | .756 | .822 |
| **Total** | **46** | **N/A** | **.845** | **.876** |

Source: Field data (2022)

An ideal scale should have a Cronbach's alpha coefficient of at least .7 (DeVellis 2012). Yet, the number of items on the scale has a significant impact on Cronbach alpha values (Pallant, 2020). Pallant adds that it is typical to discover fairly low Cronbach's values on small scales (less than 10 items) (e.g. .5). The reliability of the instrument was evaluated against this threshold and deemed appropriate.

**Data Collection Procedure**

The researcher requested approval from the Education Directorates of both municipalities. Additional clearance was obtained from the College Principals. After establishing the necessary contact with the principals of both colleges, permission was sought for the administration of the instrument. The researcher trained research assistants for the collection of the data. These assistants were trained on how to talk to respondents, how to explain certain

difficult items to respondents and other equally important information that enabled me to have uniform information. The researcher, together with the assistants, explained the purpose of the study and procedure for responding to the questionnaire to the respondents. We used a period of two (2) weeks to distribute and collect the questionnaire.

**Data Processing and Analysis**

After the data were collected, each questionnaire was reviewed to ensure it contained all the necessary information, updated as necessary, and then coded so that it could be analysed using SPSS and other appropriate statistical tools. The responses to the questionnaires were first edited, coded and scored. The editing procedure was to check whether respondents had followed directions correctly and whether all items had been responded to. Section A was on demographic data of the respondents. These responses were analysed using frequencies and percentages.

**Research Question One:**

*What knowledge of SBA do pre-service teachers in colleges of education possess?*

The objective of the first research question was to determine the respondents' degree of SBA knowledge and comprehension. On a four-point scale, participants' responses were categorized as "Strongly disagree" (1), "Disagree" (2), "Agree" (3), and "Strongly agree" (4). Each item's total score and the overall mean were computed. The items pertaining to this study were analysed utilizing means and standard deviations of the knowledge of school-based assessment responses. The standard mean test value for a 4-point likert scale was 2.5. Mean sores below 2.5 indicates low knowledge whiles mean

scores above 2.5 indicates high knowledge. Therefore, to enable the researcher to decide on whether respondents had low or high knowledge, means and standard deviations were deemed appropriate to obtain the amount of variation or dispersion of a set of values.

**Research Question Two**

*How do pre-service teachers feel about the implementation of SBA recommendations?*

The research topic aimed to determine respondents' perspectives on the implementation of SBA recommendations. On a four-point Likert scale, participants' replies to six assertions were scored as follows: 'Never' (1), 'Sometimes' (2), 'Very often' (3), and 'Always' (4). (4). Each item's total score and the overall mean were computed. Using means and standard deviations, this study question's item responses about the assessment techniques of SBA teachers were analysed. The standard mean test value for a 4-point likert scale was 2.5. Mean sores below 2.5 indicates negative feeling whiles mean scores above 2.5 indicates positive feeling. Therefore, to enable the researcher to decide on whether respondents had negative or positive feeling, means and standard deviations were deemed appropriate to obtain the amount of variation or dispersion of a set of values.

**Research Question Three**

*What effect does SBA have on pre-service teachers' teaching methodology?*

The third research question investigated the effect of SBA on the instructional methodology of pre-service teachers as reported by respondents. Participant responses were collected using fourteen items on a four-point

Likert scale: 'Strongly disagree' (1), 'Disagree' (2), 'Agree' (3), and 'Strongly agree' (4). This research question's item responses were analysed using means and standard deviation. The standard mean test value for a 4-point likert scale was 2.5. To analyse the mean scores, items/statements that scored a mean of 0.00 to 2.49 on the impact of SBA were considered to have a low impact on SBA. However, items/statements with a mean score between 2.50 and 4.00 were considered to have a substantial impact on SBA.

**Research Question Four**

*How do pre-service teachers utilize the SBA concept during off-campus teaching practice?*

The objective of the fourth research question was to determine how respondents use the notion of SBA in their off-campus teaching practice. Participants' reactions were measured using seven statements and a four-point Likert scale: 'Never' (1), 'Occasionally' (2), 'Very often' (3), and 'Always' (4). (4). Each item's total score and the overall mean will be calculated. Using means and standard deviations, this research question's item responses about instructors' assessment techniques in school-based assessment were analysed. The test value used was 2.5. This is to enable the researcher to obtain the amount of variation or dispersion of a set of values.

**Research Question Five**

*What difficulties do pre-service teachers encounter when implementing SBA during off-campus teaching practice?*

The fourth research question aimed to elicit from respondents the difficulties pre-service teachers encounter in implementing SBA. The responses to questions 40 through 50 of the questionnaires were utilized to

address the fifth research question. For the purpose of analysing this research topic, interval scale was used as the unit of measurement. The one-sample t-test will be employed as the statistical method. The test value used was 2.5. This is to enable the researcher to obtain the amount of variation or dispersion of a set of values.

**Hypothesis One**

*$H_o$: There is no statistically significant gender difference in the knowledge of pre-service teachers towards the application of SBA guidelines.*

*$H_1$: There is a statistically significant gender difference in the knowledge of pre-service teachers towards the application of SBA guidelines.*

Research hypothesis one sought to find out from respondents whether there is a statistically significant gender difference in the knowledge of pre-service teachers towards the application of SBA guidelines. Independent t-test was used to analyse this hypothesis. This is to enable the researcher to compare two sample means from unrelated groups on a single continuous dependent variable. The two groups were males and females while the continuous dependent variable was knowledge of pre-service teachers towards the application of SBA.

**Hypothesis Two**

*$H_o$: There is no statistically significance difference in pre-service teachers' knowledge of SBA in relation to age.*

*$H_1$: There is no statistically significance difference in pre-service teachers' knowledge of SBA in relation to age.*

Hypothesis two sought to investigate whether there is a statistically significant age difference between pre-service teachers and their knowledge in

SBA. The responses for the items for this hypothesis was analysed using One-way analysis of variance (ANOVA). ANOVA is used when there is the need to compare a single independent variable with three or more groups on a single continuous dependent variable. In this instance, the groups included five age groups, 18-21, 22-25, 26-29, 30-33, and 34 and above. Therefore, ANOVA was deemed appropriate for this analysis. This is to enable the researcher compare means of different groups.

**Ethical Consideration**

The study sought ethical approval from the University of Cape Coast's Institutional Review Board so that I could acquire authorization from the several schools where the research would be conducted. The researcher protected the respondents' anonymity while conducting the research

**Summary**

This chapter centred on the research location, as well as the procedures that were authorized for data collection in the field. In this chapter, the research methodology, including the study's design, sample procedures, research tools, and data processing and analysis, are broken down. The explanation of the findings and the outcomes of the investigation are presented in the next chapter.

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## Overview

The purpose of this study was to investigate the SBA knowledge and practices of pre-service teachers in the Central region. This chapter examines the presentation and analysis of the study's collected data from participating schools. Based on the research questions and hypotheses, the data were examined and discussed. Participants in the study were pre-service teachers.

The data were analysed using frequency distributions, means, standard deviations, independent t-test, and one-way ANOVA. The first section of this chapter describes the demographic characteristics of the respondents. The second section displays the research findings in accordance with the stated research questions and hypotheses on pre-service teacher knowledge and behaviour. The analysis was conducted using the following research questions and hypotheses as a foundation. In addition, the research questions and hypotheses led the discussion.

## Analysis of Background Data

This section of the chapter provides information of the respondents' background information.

Table 5: *Teachers Demographics*

| Demographics | Frequency | Percentage (%) |
|---|---|---|
| **Gender** | | |
| Male | 189 | 51.1 |
| Female | 181 | 48.9 |
| **Age** | | |
| 18-21 | 49 | 13.2 |
| 22-25 | 82 | 22.2 |
| 26-29 | 106 | 28.6 |
| 30-33 | 119 | 32.2 |
| 34 and above | 14 | 3.8 |
| **Subject** | | |
| English | 48 | 13.0 |
| Maths | 86 | 23.2 |
| Science | 119 | 32.2 |
| Social studies | 117 | 31.6 |

Source: field survey (2022)

According to the data in Table 5, the majority of pre-service teachers used in the study are males 189, or 51.1%, and girls 181, or 48.9%. In addition, the majority of respondents, 119 (32.2%), were between the ages of 30-33, 106 (28.6%) were between the ages of 26-29, 49 (13.2%) were between the ages of 18-21, and only 14 (3.8%) were between the ages of 34 and older. This demonstrates that the districts have a significant number of young teachers attending the college of education. 119 pre-service teachers, representing 32.2%, teach science as a subject.

**Research Question and Hypothesis Analysis**

**Research Question One**:

*What degree of knowledge do SBA pre-service teachers possess?*

The first research question aimed to determine the SBA knowledge of the participants. Teachers were asked to rate their knowledge level on nine questions using Strongly Agree, Agree, Disagree, and Strongly Disagree as

evidence. On the scale, Strongly Agree equals 4, Agree equals 3, Disagree equals 2, and Strongly Disagree equals 1.

The criterion value (CV) of the scale was set at 2.50. To determine the criterion value (CV = 2.50), the sum of the scores were divided by the number scale (4 + 3 + 2 + 1 = 10 / 4 = 2.50). These classifications were developed in accordance with Pallant's (2001) recommendations about the interpretation of descriptive statistics such as the mean and standard deviation.

To comprehend the mean scores, knowledge in SBA items/statements that scored a mean between 0.00 and 2.49 were deemed to have low SBA knowledge. However, items/statements with a mean score between 2.50 and 4.00 were deemed to demonstrate a high level of SBA knowledge. Table 6 gives descriptive results.

Table 6: *Knowledge Level on SBA*

| **Statement** | **N** | **M** | **SD** |
|---|---|---|---|
| SBA standardizes the practice of internal assessment in all schools in the country | 370 | 2.88 | 1.012 |
| SBA provides reduced assessment tasks for each of the pre-service subjects | 370 | 2.96 | .963 |
| SBA provides me with guidelines for constructing assessment items/questions and other assessment tasks | 370 | 2.91 | .976 |
| SBA Provides guidance in marking and grading of test items/questions and other assessment tasks | 370 | 3.06 | 1.033 |
| SBA introduces standards of achievement in each subject and in each class of the school system | 370 | 3.08 | .977 |
| SBA introduces a system of moderation that will ensure accuracy and reliability of marks | 370 | 2.94 | 1.026 |
| SBA advises me on how to conduct remedial instruction on challenging curriculum areas to increase pupil performance. | 370 | 2.93 | 1.086 |
| I have sufficient knowledge about the use of teaching aids to facilitate student understanding about the lesson content through SBA | 370 | 2.99 | .953 |
| SBA system consists of 12 assessments in a year | 370 | 3.03 | .975 |

Source: field survey (2022)

According to Table 6, pre-service teachers in the Central Region have typically acceptable SBA understanding. This became clear when the group mean (M = 3.0, SD = 0.719) was found to exceed the cut-off threshold (2.50). The following are areas in which pre-service teachers in the Central Region have a high level of SBA knowledge. In the central area, pre-service teachers were aware that "school-based assessment is conducted at regular intervals to improve the overall performance of students and the teaching and learning process." In the Central region, pre-service teachers were aware that "SBA introduces accomplishment standards for each subject and class" (M=3.08, SD=0.977). Pre-service teachers in the Central Region were aware that "SBA Provides Guidance in Marking and Grading of Test Items/Questions and Other Assessment Tasks" (Mean = 3.06, Standard Deviation = 1.10).

Similarly, pre-service teachers in the Central Region concurred that "I have sufficient expertise regarding the use of teaching aids to facilitate student understanding of the lesson content using SBA" (M=2.9, SD=0.963). The majority of pre-service teachers in the Central region believed that SBA gives fewer assessment assignments for each pre-service topic (M = 2.96, SD = 0.655). The majority of pre-service teachers in the Central Region confirmed (M=3.03, SD=0.975) that the SBA system consisted of 12 examinations per year. The majority of pre-service teachers in the Central Region acknowledged (M=2.93, SD=1.03) that “SBA advises me on how to conduct remedial instruction on challenging curriculum areas to increase pupil performance." Pre-service teachers in the Central region reported that SBA gives them with guidance for creating assessment items/questions and other assessment tasks (M=2.91, SD=0.976). The majority of pre-service teachers in the Central

region (M=2.94, SD=1.026) stated that "SBA establishes a system of moderation that will ensure the accuracy and dependability of grades."

**Research Question Two:**

*How do pre-service teachers feel about the implementation of SBA regulations?*

The second research question aimed to determine the participants' perspective about doing SBA. The selected pre-service teachers were asked to score their agreement with six statements using Strongly Agree, Agree, Disagree, and Strongly Disagree. Strongly Agree = 4, Agree = 3, Disagree = 2, and Strongly Disagree = 1 on the scale.

The scale's criteria value (CV) was established at 2.50. To calculate the criterion value (CV = 2.50), the scores were summed and then divided by the number scale (4 + 3 + 2 + 1 = 10 / 4 = 2.50). Based on the advice of Pallant (2001) regarding the interpretation of descriptive statistics such as mean and standard deviation, these classifications were made.

To understand the mean scores, items/statements on the attitude of pre-service teachers in SBA that scored a mean of 0.00 to 2.49 were considered to have a low level of SBA understanding. However, items/statements with a mean score between 2.50 and 4.00 were considered to have a positive attitude toward SBA. Table 7 displays descriptive results.

Table 7: *Attitude towards the Application of SBA Guidelines*

| Statement | N | M | SD |
|---|---|---|---|
| There is adequate time for me to implement SBA in the classroom | 370 | 2.96 | 1.016 |
| SBA has provided me with better teaching experience | 370 | 3.06 | 1.046 |
| I wish to use other forms of assessments instead of SBA | 370 | 2.92 | 1.049 |
| I enjoyed implementing assessment using the SBA at all times in the classroom | 370 | 3.19 | .925 |
| I am ready to conduct the teaching and learning process through SBA when I become a professional teacher | 370 | 3.07 | 1.015 |
| It is very easy for me to introduce innovations in teaching and learning in line with the assessment in SBA | 370 | 2.66 | 1.139 |

Source: field survey (2022)

The results in Table 7 indicated that, generally, pre-service teachers in the Central Region are reported to have better attitude towards SBA. This was evident after the group mean (M= 3.0, SD=.719) was shown to be greater than the cut-off value (2.50). The following are some of the areas that pre-service teachers in the central region have high attitude in SBA. Pre-service teachers in the Central Region showed better attitude about the fact that "I enjoyed implementing assessment using the SBA at all times in the classroom" (M=3.19, .925). Pre-service teachers in the Central Region were showing better attitude about the fact that "SBA has provided me with better teaching experience" (M=3.06, SD=1.046).

Pre-service teachers in the Central Region showed better attitude about the idea that "I am ready to conduct the teaching and learning process through SBA when I become a professional teacher" (M=3.07, SD=1.015). Similarly, pre-service teachers in the Central region agreed that "There is adequate time for me to implement SBA in the classroom" (M=2.96, SD=1.016). Most pre-

service teachers in the Central region were of the view that "I wish to use other forms of assessments instead of SBA" (M=2.92, SD=1.049). Majority of the pre-service teachers in the Central region confirmed that "It is very easy for me to introduce innovations in teaching and learning in line with the assessment in SBA" (M=2.66, SD=1.139).

**Research Question Three**:

What is the impact of SBA on pre-service teachers' instructional methods?

The third research question asked participants on the impact of SBA on pre-service teachers' instructional method. To collect evidence for this, selected pre-service teachers were asked to score the impact of 14 statements using Strongly Agree, Agree, Disagree, and Strongly Disagree. Strongly Agree = 4, Agree = 3, Disagree = 2, and Strongly Disagree = 1 on the scale.

The scale's criteria value (CV) was established at 2.50. To calculate the criterion value (CV = 2.50), the scores were summed and then divided by the number scale (4 + 3 + 2 + 1 = 10 / 4 = 2.50). Based on the advice of Pallant (2001) regarding the interpretation of descriptive statistics such as mean and standard deviation, these classifications were made.

To analyse the mean scores, items/statements that scored a mean of 0.00 to 2.49 on the impact of SBA were considered to have a low impact on SBA. However, items/statements with a mean score between 2.50 and 4.00 were considered to have a substantial impact on SBA. Tabulated in Table 8 are the descriptive results.

Table 8: *Impact of SBA on Pre-Service Teachers' Instructional Methods*

| Impact of SBA on Pre-Service Teachers' Instructional | N | M | SD |
|---|---|---|---|
| The use of SBA has improved my teaching methods | 370 | 3.34 | .857 |
| SBA makes my teaching more interesting | 370 | 2.77 | .966 |
| The use of SBA helps me to identify learning needs of students | 370 | 2.82 | 1.049 |
| The use of SBA influences my way of instructions | 370 | 3.22 | .929 |
| SBA helps me to adapt instructions to meet individual learning needs | 370 | 2.76 | 1.004 |
| The use of SBA helps me provide adequate feedback to my students | 370 | 3.03 | .931 |
| The use of SBA helps me to provide timely feedback to my students | 370 | 2.64 | 1.053 |
| SBA helps me to do more activity work and less class tests | 370 | 2.94 | 1.041 |
| SBA helps me to assess students easily to enable me vary my teaching methods where necessary | 370 | 2.60 | 1.124 |
| I am able to administer appropriate group exercises where necessary | 370 | 2.64 | 1.043 |
| I am able to do individual projects as required by SBA | 370 | 2.46 | 1.087 |
| I am able to ensure that all project tasks are set with the knowledge and competence from other subjects | 370 | 2.32 | 1.124 |
| I am able to ensure that my classroom instructions make use of real life and unfamiliar projects as illustrations to encourage pupils to apply their knowledge to problems of varying complexities | 370 | 2.46 | 1.049 |
| I use different test modes are in the classroom | 370 | 2.82 | 1.020 |

Source: field survey (2022)

According to Table 8, pre-service teachers in the central region report that SBA has a significant impact on their instructional techniques. The following are some areas where SBA has a significant impact on pre-service teachers' instructional practices in the Central Region. Pre-service teachers in the central region had a more positive attitude toward the statement "The

usage of SBA has enhanced my teaching approaches" (M=3.34, SD=.857). The impact of SBA on the instructional approaches of pre-service teachers was greater in the Central area. "The usage of SBA effects the manner in which I instruct" (M=3.22, SD=0.929). Pre-service teachers in the Central region demonstrated a significant impact of SBA on their instructional strategies. "Using SBA assists me in providing enough feedback to my pupils" (M=3.03, SD=0.936). Similarly, pre-service teachers in the Central area concurred that SBA have a significant impact on their instructional practices (M=2.94, SD=1.041).

The majority (M=2.82, SD=1.049) of pre-service teachers in the Central area agreed with the statement "The use of SBA enables me to identify kids' learning needs." The majority (M=2.82, SD=1.020) of pre-service teachers in the Central region confirmed, "I use several test formats in the classroom." Pre-service teachers did not agree that "I am able to ensure that all project tasks are set with the knowledge and competence from other subjects" (M=2.32, SD=1.124) has an impact on SBA. Similarly, pre-service teachers did not agree that "I am able to ensure that my classroom instructions use real-life and unfamiliar projects as illustrations to encourage students to apply their knowledge to problems of varying complexities" (M=1.049, SD=1.049).

**Research Question Four**:

*How do pre-service teachers implement the concept of SBA during off-campus teaching practice?*

The purpose of the fourth research question was to discover from the participants in the study how pre-service teachers use the idea of SBA when they are engaged in off-campus teaching practice. In order to collect evidence

for this, the selected teachers were asked to score their level of agreement with seven different statements by selecting either Strongly Agree, Agree, Disagree, or Strongly Disagree. The following responses were given on the scale: Strongly Agree =4, Agree =3, Disagree = 2, and Strongly Disagree =1.

It was decided that a criteria value (CV) of 2.50 would be appropriate for the scale. The criterion value, which is shown by the notation CV = 2.50, was arrived at by adding all of the scores together and then dividing the total by the number scale (4+3+2+1 = 10/4 = 2.50). The recommendation made by Pallant (2001) with regard to the interpretation of descriptive statistics such as mean and standard deviation was used as the basis for these categorizations to be completed.

In order to understand the mean scores, items or statements on the impact of SBA that scored a mean of 0.00 to 2.49 were considered to have low knowledge in the application of SBA during their off-campus teaching practice. This was because these scores fell within the range that was used to calculate the mean. However, those items and statements on the methods and implementation process of SBA that scored a mean between 2.50 and 4.00 were regarded as having high knowledge in the implementation of SBA during their off-campus teaching practice. This was the case despite the fact that the majority of respondents scored between 2.50 and 4.00. Table 9 summarizes the findings in descriptive terms.

Table 9: *Methods and Process of Implementing SBA*

| Methods and Process of Implementing SBA | N | M | SD |
|---|---|---|---|
| I am able to follow SBA modes without any challenges | 370 | 2.67 | 1.064 |
| I am able to administer individual tests at the end of the first month of the first term | 370 | 2.83 | 1.070 |
| I ensure the task 3 is administered as individual test under my supervision at the end of the 11th week of the term | 370 | 2.90 | .882 |
| In addition to the SBA, I am able to use class exercises and homework as means of continuously evaluating students' class performance and motivating them to improve their learning performance. | 370 | 2.83 | .895 |
| I ensure that task 4 is a project to be undertaken throughout the term and submitted at the end of the term | 370 | 2.91 | .948 |
| My classroom instruction makes use of real life and unfamiliar projects as illustrations to encourage pupils to apply their knowledge to problems of varying complexities | 370 | 3.17 | .916 |
| I ensure that the total scores on the end-of-semester exam are scaled to 50 before adding the SBA marks and end-of-term exam marks to determine the end-of-term grades for each student. | 370 | 3.11 | .883 |

Source: field survey (2022)

The results in Table 9 indicated that, generally, pre-service teachers in the central region are reported that they are able to implement the SBA during their off-campus teaching practice. This was evident after the group mean (M= 3.0, SD=.719) was shown to be greater than the cut-off value (2.50).

The following are some of the areas that pre-service teachers in the central region show their methods and process of implementing SBA. Pre-

service teachers in the central region were showing better methods and process of implementing SBA "My classroom instruction makes use of real life and unfamiliar projects as illustrations to encourage pupils to apply their knowledge to problems of varying complexities" (M=3.17, .916). Pre-service teachers in the Central region were showing better methods and process of implementing SBA "I ensure that the total scores on the end-of-semester exam are scaled to 50 before adding the SBA marks and end-of-term exam marks to determine the end-of-term grades for each student" (M=3.11, SD=.883). Pre-service teachers in the Central region were showing better methods and process of implementing SBA "I ensure that task 4 is a project to be undertaken throughout the term and submitted at the end of the term" (M=2.91, SD=.948). Similarly, pre-service teachers in the Central region agreed that "I ensure the task 3 is administered as individual test under my supervision at the end of the 11$^{th}$ week of the term" (M=2.90, SD=.882). Most pre-service teachers in the Central region were of the view that "I am able to administer individual tests at the end of the first month of the first term" (M=2.83, SD=1.070). Majority of the pre-service teachers in the Central region confirmed that "In addition to the SBA, I am able to use class exercise and homework as means of regularly evaluating pupils' class performance and motivating them to improve their learning performance." (M=2.83, SD=.895).

**Research Question Five**:

*What are the challenges faced by pre-service teachers in the implementation of SBA during off- campus teaching practice?*

Research question five sought to find out from participant the challenges pre-services teachers face in the implementation of the concept of SBA during their off-campus teaching practice. To gather evidence for this, the selected teachers were made to rate on 7 items using Strongly Agree, Agree, Disagree and Strongly Disagrees. The scale was scored as (Strongly Agree =4, Agree =3, Disagree= 2 and Strongly Disagree =1.

The criterion value (CV) of 2.50 was established for the scale. To obtain the criterion value (CV=2.50), the scores were added together and divided by the number scale (4+3+2+1= 10/4=2.50). These categorizations were done based on the recommendation of Pallant (2001) regarding the interpretation of descriptive statistics such as mean and standard deviation.

To understand the mean scores, items/statements on the challenges of SBA that scored a mean of 0.00 to 2.49 were regarded as low challenge in SBA. However, those items/statements on the impact of SBA that scored a mean from 2.50 to 4.00 were regarded as high challenge in SBA. Table 10 presents the descriptive results.

Table 10: *Challenges of SBA*

| Challenges of SBA | N | M | SD |
|---|---|---|---|
| Large number of students makes it very difficult for me to implement SBA effectively | 370 | 2.99 | .967 |
| Non-availability of adequate guidelines is a challenge for me to effectively implement SBA in the classroom | 370 | 3.15 | .954 |
| Lack of orientation for pre-service teachers on SBA makes the implementation a challenging one for me | 370 | 2.98 | 1.089 |
| Truancy and irregular of pupil's attendance to school affects the effective implementation of the SBA | 370 | 3.02 | .957 |
| There is poor record keeping on SBA by management of the school | 370 | 3.07 | 1.011 |
| The SBA is time consuming | 370 | 3.10 | .893 |
| Lack of support from the school authorities in terms of logistics and facilities makes the implementation difficult | 370 | 2.95 | 1.016 |
| Lack of motivation from school authorities and mentors affects the effective implementation of the SBA | 370 | 3.20 | .839 |
| Inadequate time allotted on the timetable for various subjects affects the effective implementation of SBA | 370 | 3.21 | .851 |
| Inadequate time for me to prepare in terms of gathering information and materials to be used for SBA | 370 | 3.08 | .952 |

Source: field survey (2022)

The results in Table 10 indicated that, generally, pre-service teachers in the central region are reported that there are challenges that effect the implantation of SBA. The following are some of the areas that pre-service teachers in the central region show challenges of implementing SBA. Pre-service teachers in the central region were showing challenges of implementing SBA "Inadequate time allotted on the timetable for various subjects affects the effective implementation of SBA" (M=3.21, .851).

Pre-service teachers in the Central region were showing challenges of implementing SBA "Lack of motivation from school authorities and mentors affects the effective implementation of the SBA" (M=3.20, SD=.839). Pre-service teachers in the Central region were showing challenges of implementing SBA "Non-availability of adequate guidelines is a challenge for me to effectively implement SBA in the classroom" (M=3.15, SD=.954). Similarly, pre-service teachers in the Central region agreed that challenges effect School-based assessment "The SBA is time consuming" (M=3.10, SD=.893). Most pre-service teachers in the Central region were of the view that "Large number of students makes it very difficult for me to implement SBA effectively" (M=2.99, SD=.967). Majority of the pre-service teachers in the Central region confirmed that "Inadequate time for me to prepare in terms of gathering information and materials to be used for SBA" (M=3.08, SD=.952).

**Research Hypothesis One**

$H_o$: There is no statistically significant difference between gender and the attitudes of pre-service teachers towards the application of SBA guidelines.

At an alpha level of .05 for all statistical tests, hypothesis one was tested to find out whether gender of pre-service teachers could differ in their attitude towards the application of SBA. The data was made up of independent variable (gender) which is categorical and dependent variable (attitudes of pre-service teachers towards the application of SBA guidelines which was continuous). The scale was scored as (Strongly Agree =4, Agree =3, Disagree= 2 and Strongly Disagree =1.

The independent t-test was conducted to determine whether there is any statistically significant differences among the means of independent variables that is gender with attitudes of pre-service teachers towards the application of SBA guidelines in the central region. The independent variable, gender (male or female). The dependent variable was attitudes of pre-service teachers towards the application of SBA guidelines. Independent t-test assumptions of normality and homogeneity of variances of the data distribution were checked.

Table 11: *Attitude of pre-services teachers*

| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Attitude | Male | 189 | 17.5926 | 4.23362 | .30795 |
| | Female | 181 | 18.1713 | 3.96771 | .29492 |

Source: field survey (2022)

The descriptive statistics as in Table 11 shows that pre-services teachers' male (M= 17.5926, SD= 4.23362) did not differ from that of the female (M=18.1713, SD=3.96771).

Table 22: *Summary of the independent t-test Result*

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | |
|---|---|---|---|---|---|---|---|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Std. Error Difference |
| Attitude | Equal variances assumed | 1.870 | .172 | -1.355 | 368 | .176 | .42699 |
| | Equal variances not assumed | | | -1.357 | 367.830 | .176 | .42639 |

Source: field survey (2022)

To analyse the differences in mean scores between the two groups, an independent t-test was carried out (gender). Due to the fact that its sig-value of.172 was higher than .05, the results of Table 12 revealed that it was presumed that they had the same variance. The results of the t-test for equality of means showed that the sig-value was .176, which is more than .05, indicating that there was no statistically significant difference between the attitudes of male and female pre-service teachers about SBA.

This demonstrates through statistical analysis that there was no significant difference in the mean scores of the variable that was evaluated. As a result of this, the testing of the hypothesis found that there was not a significant difference between the attitudes held by men and women regarding SBA. As a result, the findings of the independent t-test provided evidence in support of the null hypothesis, which stated that "*There is no statistically significant difference between gender and the attitudes of pre-service teachers regarding the adoption of SBA guidelines*."

**Research Hypothesis Two**

$H_o$: There is no statistically significance age difference between pre-service teachers and knowledge of SBA.

Table 13: *Descriptive*

| | **N** | **Mean** | **Std. Deviation** |
|---|---|---|---|
| 18-21 | 49 | 23.2653 | 5.67808 |
| 22-25 | 82 | 26.2317 | 5.64658 |
| 26-29 | 106 | 27.0943 | 5.23637 |
| 30-33 | 119 | 28.3782 | 4.94031 |
| 34 and above | 14 | 26.0714 | 4.32282 |
| **Total** | **370** | **26.7703** | **5.48056** |

Source: field survey (2022)

Table 34: *Test of Homogeneity of Variances*

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Knowledge | Based on Mean | 1.275 | 4 | 365 | .279 |
| | Based on Median | 1.280 | 4 | 365 | .277 |
| | Based on Median and with adjusted df | 1.280 | 4 | 359.290 | .277 |
| | Based on trimmed mean | 1.318 | 4 | 365 | .263 |

Source: field survey (2022)

Table 15: *ANOVA*

| | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 951.356 | 4 | 237.839 | 8.568 | .000 |
| Within Groups | 10132.117 | 365 | 27.759 | | |
| **Total** | **11083.473** | **369** | | | |

Source: field survey (2022)

Table 16: *Multiple Comparisons*

| | (I) AGE | (J) AGE | Mean Difference (IJ) | Std. Error | Sig. |
|---|---|---|---|---|---|
| Tukey HSD | 18-21 | 22-25 | -2.96640* | .95134 | .017 |
| | | 26-29 | -3.82903* | .91016 | .000 |
| | | 30-33 | -5.11285* | .89431 | .000 |
| | | 34 AND ABOVE | -2.80612 | 1.59666 | .400 |
| | 22-25 | 18-21 | 2.96640* | .95134 | .017 |
| | | 26-29 | -.86263 | .77486 | .800 |
| | | 30-33 | -2.14644* | .75617 | .038 |
| | | 34 AND ABOVE | .16028 | 1.52359 | 1.000 |
| | 26-29 | 18-21 | 3.82903* | .91016 | .000 |
| | | 22-25 | .86263 | .77486 | .800 |
| | | 30-33 | -1.28381 | .70367 | .361 |
| | | 34 AND ABOVE | 1.02291 | 1.49823 | .960 |
| | 30-33 | 18-21 | 5.11285* | .89431 | .000 |
| | | 22-25 | 2.14644* | .75617 | .038 |
| | | 26-29 | 1.28381 | .70367 | .361 |
| | | 34 AND ABOVE | 2.30672 | 1.48865 | .531 |
| | 34 AND ABOVE | 18-21 | 2.80612 | 1.59666 | .400 |
| | | 22-25 | -.16028 | 1.52359 | 1.000 |
| | | 26-29 | -1.02291 | 1.49823 | .960 |
| | | 30-33 | -2.30672 | 1.48865 | .531 |

*. The mean difference is significant at the 0.05 level.
Source: field survey (2022)

A one-way analysis of variance was conducted to find out the difference between age of pre-services teachers and their knowledge in the use of SBA. After satisfying all assumptions of the normality and homogeneity of variance, a one-way analysis of variance was conducted. Based on the ANOVA table it indicated a sig-value of .000 which is less than .05 telling us that there is a statistically significance difference between age of pre-service teachers in the Central Region and their knowledge on SBA.

Therefore, a post hoc test was conducted to find out the difference between the ages of pre-service teachers and their knowledge on SBA. Tukey was further used to for this post hoc analysis. From the post hoc analysis there is a statistically significance difference between the "18-21" and "22-25" since its sig-value was .017 which is less than .05 telling us that pre-service teachers in the age between "22-25" have more knowledge (M=26.2317, SD=5.64658) than pre-service teachers within age "18-21" (M=23.2653, SD=5.67808), F (4, 365) = 8.568. Now comparing the age "18-21" and that of "26-29" it indicated a sig-value of .000 which is less than .05 telling us that there is a difference between their ages, pre-service teachers within the "26-29" have more knowledge (M=27.0943, SD=5.23637) than teachers within the age "18-21" (M=23.2653, SD=5.67808), F (4, 365) = 8.568.

**Discussion of Research Findings**

In this section, the findings are discussed in relation to:

1. level of knowledge pre-service teachers on the concept of SBA,
2. attitude of pre-service teachers towards the application of SBA guidelines,
3. impact of SBA on pre-service teachers' instructional methods,

4. the pre-service teachers' methods of implementing the SBA,
5. challenges of pre-service teachers in the implementation of SBA.

**Teachers' knowledge in school-based assessment**

The findings of the study about the amount of SBA knowledge held by teachers revealed that the level of SBA knowledge held by pre-service teachers was generally high. The findings of Samsudin et al. (2016), who found that primary school teachers had a high degree of awareness and preparedness for adopting SBA, have been confirmed by these data. They add that the high level of comprehension can be attributed to the support services and training sessions that the majority of instructors attended. These services and sessions were attended by the majority of teachers.

This validates the findings of Hashim et al. (2015), who discovered that teachers have sufficient grasp of SBA and are aware of the ideal procedures for applying SBA. Additionally, Veloo et al. (2015) came to the same conclusion that the vast majority of educators are aware with the SBA. It became quite evident that teachers have an expert level of knowledge in SBA when the overall mean of their study was 3.27. In a similar vein, the most recent investigation revealed that virtually the exact same overall mean of (3.12). It would appear that the conclusion reached by this study and the study by Veloo et al. (2015) about the level of SBA knowledge possessed by the majority of educators are in agreement. It is likely that the Ministry of Education was successful in its dissemination of information regarding SBA implementation to teachers, which contributed to the high level of SBA awareness among instructors in the present study (Chew & Muhamad, 2017).

John (2002) conducted a study on teachers' knowledge of School-Based Assessment in Uganda. The t-test results were consistent with those of John's study. John discovered that teachers' expertise and comprehensive comprehension of the SBA components aids in boosting student comprehension of their work. Teachers with understanding of SBA would be able to describe the components of SBA to anyone requesting information on SBA procedures. Similarly, Antonio (2008) showed that under the SBA, teachers must have the expertise to evaluate students because they play a crucial role in evaluating pupils.

According to the findings of this study, responders were more involved in the assessment of their pupils when SBA procedures were followed. Having knowledge of SBA makes it easier for teachers to evaluate their pupils' progress in learning. This would make it easier for teachers to determine which students in a specific class are doing above average compared to others, as well as which students are performing below average. This discovery was corroborated by the outcomes of studies conducted by McCmilian (2000). Within the body of research, it was stressed how important it is for instructors to have knowledge and an awareness of school-based assessments so that they can evaluate their students' progress in learning. In addition, he discovered that educators who had a solid understanding of school-based assessments were able to successfully incorporate the concept into their lessons. They were also capable of utilizing effective tactics, techniques, and strategies in order to develop the capabilities of their students. It was discovered that responders had sufficient understanding about SBA to select components that could have an effect on the accomplishments of students. The knowledge of SBA that

teachers have allows them to know and choose the appropriate assessment items to determine how well their pupils have grasped the material that they have been taught. This would also assist teachers in determining the relative position of each student in a particular class, which would allow for more informed decision-making regarding the students in question.

Again, the research conducted by Othman et al. (2013) found that teachers who participated in their survey and statistically agreed that they understood the SBA implementation in the Primary School Standard Curriculum in Malaysian schools. This was found in the study. This is because the study reported a mean score of 3.39 for instructors' SBA knowledge. The reason for this may be found in the previous sentence. In addition, Mansor et al. (2013) came to the conclusion in a study that primary school teachers have a fundamental comprehension of the characteristics of SBA. This was the case despite the fact that all teachers who participated in this survey admitted to experiencing hiccups or "growing pains," most significantly when it came to the creation of the instruments.

Similarly, the majority of primary school teachers in the Savelugu Municipality were unaware that school-based assessment is not planned by the entire school (M=2.19, SD=.840) based on the results of item 15 (see Table 5). This data corroborates the findings of Awoniyi (2016), who discovered that 18.2% of respondents erroneously believed SBA was planned by the entire school.

In contrast to these findings, a study that examined the implementation of SBA in Malaysia and the issues related to its early years of implementation, which included teachers' understanding of SBA and their readiness to

implement SBA in their respective schools, found that teachers lacked knowledge about SBA. This finding was made by Md-Ali et al. (2015). The study was conducted in Malaysia. They discovered that the vast majority of educators were uncertain as to whether SBA included simply formative assessment or whether it included both formative and summative assessment. This notion, on the other hand, is in direct opposition to the findings of the current study, which demonstrate that teachers were aware that SBA featured both formative and summative assessment. Md-Ali et al (2015)'s findings of low teachers' understanding may be related to its early stages of implementation in Malaysia, during which instructors did not have the time to learn the "new" assessment. This may be one of the reasons why Md-Ali et al. came to their conclusions.

In addition, Talib et al. (2014) found that teachers have inadequate SBA expertise. They stated that the assessment of pupils without input from the instructor who controls the learning activities is insufficient. Teachers are expected to be involved in all phases of the SBA process, and their supervision and input on student work, particularly student projects, is crucial. The current study's findings are also conflicting with those of Awoniyi (2016), who discovered that mathematics teachers in the Cape Coast Metropolitan Area did not comprehend SBA requirements. The survey indicated that these teachers continue to use the outdated "continuous assessment" system. However, the contradictory findings of Awoniyi may be explained by the fact that elementary school teachers have greater assessment abilities than secondary school teachers, who demonstrate inadequate prepartion, incompetence, and ignorance in assessments (Oyedeji, 2016). In addition, Nugba (2012)

discovered that teachers were not adhering to the prescribed processes when assessing pupils in SBA. This could also be attributable to its early implementation in Ghana.

Similarly, a study by Kaira (2002) was found to be inconsistent with the present findings. Sixty-five percent of teachers surveyed felt they lacked the knowledge and abilities necessary to conduct school-based assessment, according to the report. According to Adi (as stated in Mansor et al., 2013), the majority of Malaysian teachers were unprepared to utilize the SBA in the classroom. Kaira believed that teachers had not yet grasped the concept of SBA and, as a result, lacked the knowledge to construct the proper assessment tasks, which would contribute to the school-based assessment's validity.

The findings of another study that was done by Hamzah et al. (2015), which contradict the current study, revealed that many teachers lacked the knowledge and expertise necessary to properly assess their students. In addition, according to a study that was carried out by Fook and Sidhu (2006) on the knowledge and best practices of Malaysian ESL (English as a Second Language) teachers in carrying out SBA, as many as 70% of ESL teachers stated that they had no experience with SBA. The research was focused on the conduct of SBA. Even though the vast majority of respondents possessed the material necessary to construct their own assessments, one-third of respondents admitted to frequently employing the "cut and paste" method.

**Attitudes of teachers towards the application of SBA guidelines**

According to the find of this study, pre-service teachers have generally positive attitudes of SBA. The findings complement the study conducted by Oduro-Okyireh (2008) to determine if Senior Secondary School

teachers in Ghana's Ashanti Region adhered to basic testing concepts. The study indicated that teachers largely adhered to fundamental exam development, administration, and scoring standards. According to observations made by Stiggins (2005), teachers do not have the incentive to introduce a new assessment system for learning in the classroom because they do not have opportunity to understand the skills of good assessment. In addition, he came to the conclusion that the willingness of educators to make use of assessment as a tool for learning encompasses a wide range of activities, including the establishment of specific performance goals and the establishment of achievement standards for students in accordance with the curriculum. In addition, educators are obligated to always be ready with evidence of the learning that has taken place, evaluate the extent to which students are engaged in the learning process, and keep accurate records.

Alaba (2012) also discovered that teachers in Nigeria are averse to use the SBA in educational settings where they are instructing or learning new material. In addition to this, he came to the conclusion that more than fifty percent of educators in Nigeria hold pessimistic views regarding the influence that SBA has on the teaching and learning practices of students. As a result, he suggested that the implementation should be effectively monitored, and that all educators should get in-service training. According to the findings of his investigation, less than half of the teachers in Nigeria (40.7% of the total sample) were ready to administer the SBA to their students in the classroom setting. Knowledge of the SBA's requirements, processes, and evaluation criteria, as well as the system itself, as well as the ability to enhance

professionalism in the SBA implementation were some of the concerns of the teachers.

This study does not support the findings of Norani and Saifullazri (2010), which stated that some educators were unwilling to participate in SBA activities. In addition, they discovered that some educators lacked the confidence to participate in SBA due to a lack of training, which had the unintended consequence of lowering their self-esteem. Stiggins (2005) found in his study that teachers in the United States lack the incentive to apply new evaluation systems for student learning because they lack the opportunity to acquire effective assessment methods. This was shown to be the case in the study that was carried out in the United States. In another Malaysian study, Veloo, Krishnasamay, and Md-Ali (2015) discovered that instructors are generally prepared to participate in SBA.

The findings of this study validate the findings of Ahmedi (2019), who did a study to determine whether or not there is a connection between the viewpoints of teachers on assessment and the adoption of assessment methods. The third possibility is that there is a correlation that is statistically significant between the attitudes of instructors and the behaviour of teachers in respect to assessments. The attitudes that instructors have and the actions that they take in regard to formative assessment were found to have a correlation of r=0.620. The average attitude of teachers toward formative assessment is higher than that of teachers who utilize other assessment methods. Educational evaluation can be an efficient means of enhancing educational systems (Koh, 2011). However, because these components are interdependent, their effectiveness is contingent on the teachers' attitudes,

skills, knowledge, and practices (Calderhead, 1996). Ahenkora (2019) evaluated the implementation of SBA in the Central Region's KEEA district. 200 elementary school teachers from 10 elementary schools were selected for the study using quota sampling. Five research questions and three hypotheses led the investigation. Utilizing a questionnaire to acquire data for the study, teachers generally concurred that they are informed about applying SBA on a daily basis to improve students' overall performance. Teachers were also pleased with the manner in which SBA regulations were applied.

According to him, though, instructors' attitudes toward SBA ranged from good to negative. The majority of teachers agreed that SBA's intentions were admirable and that it would provide several benefits to pupils. Nonetheless, they have questions regarding its applicability and the implementation of the ideas in classroom pedagogical techniques.

**Impact of SBA on Pre-Service Teacher's Instructional Method**

The results in Table 4 indicated that, generally, pre-services teachers in the Central region are reported to have a great impact of SBA on pre-service teachers' instructional methods. The result confirms with MOE Malaysia, that SBA possesses the qualities necessary to satisfy the aforementioned standard. Furthermore, it is the best assessment technique for relieving students' pressure and enabling teacher initiative in evaluating their students (Brown, 2001). To maximize the evaluation's beneficial benefits, teachers are expected to participate in all four phases of the assessment process: planning, gathering information, assessing that evidence, and using the results to make decisions.

According to the study results, respondents concurred that SBA had improved their teaching skills. Teachers can now utilize the most effective

teaching methods and strategies to convey concepts and ideas for students' understanding and appreciation. Respondents indicated the ability to identify students who are not paying attention in class. This would eventually result in improved student performance.

It was found that the SBA made teaching and learning more dynamic and engaging. Respondents reported that their ability to use relevant examples in the classroom created a very conducive atmosphere for the growth of teaching and learning. This made the children extremely happy, and they did not want the school day to end.

In addition, respondents claimed that SBA had assisted them in identifying students' learning requirements. This is crucial in any context for teaching and learning. In an ideal sense, teachers must possess the skills and knowledge required to identify their students' needs. This would assist teachers better understand and know their students. Students with special needs could be sent to the appropriate areas to resolve their concerns amicably.

The aforementioned indicate that a paradigm shift in the assessment system has further led to all elementary schools' teaching and learning procedures need the consideration of academics, educators, and stakeholders and researchers. Consequently, teachers' participation in this new assessment method is crucial; Teachers must use a range of instructional strategies and evaluation methods that directly affect the evaluation results (Chan, Sidhu, & Yunus, 2006). The issue of whether SBA is appropriate for our education system has also motivated this study.

Since teachers are the greatest candidates to evaluate their students and have a stronger understanding of the background of the subject, they are given additional responsibility for providing high-quality assessments that are aligned with learning outcomes. This allows teachers to monitor their students and offer constructive feedback to help them study more efficiently (Brown, 2001). Based on the findings of the assessment, teachers can determine whether to move on to a new topic, offer the required assistance, or send the most academically challenging children to remedial class. Teachers are encouraged to employ a variety of strategies, including as quizzes, question-and-answer sessions, short writing, dramas, and role-playing, to assess students' learning outcomes. Each student will be assessed on his or her preparedness and aptitude (Davison, 2007; Dietel, Herman & Knuth, 1991). To promote learning for students of varying abilities, teachers must give a variety of indirect, effective teaching strategies (Mansor, 2012). This enables students to progress in accordance with their aptitude, with stronger students advancing more rapidly and weaker students receiving more time to learn (Chapman, 2010).

Mansor and Yusoff (2013) conducted a qualitative case study to examine how SBA facilitates the evaluation of Year 1 academic progress in three urban Chinese primary schools, hence promoting teaching and learning. According to data acquired from interviews with three Year 1 Chinese language instructors, teachers have generally good views of the SBA system, and both teachers and students have benefited from it. However, there are shortcomings that must be acknowledged and adjustments that must be done. The findings suggested that for SBA to be effective, teachers must be creative,

employing a range of teaching strategies and evaluation methods. To ensure that the implementation of SBA will be successful, additional study is required. According to the study, the implementation of SBA for these Chinese language teachers fostered personal growth, aided in the development of positive attitudes, improved collaborative skills, and promoted the adoption of innovative teaching and learning strategies.

**Challenges of Pre-service teachers in the implementation of school-based assessment**

The outcomes of the study revealed that teachers generally experienced difficulties when implementing SBA in the classroom. The study revealed that teachers face the following difficulties: (a) students copying each other's assignments and classwork; (b) a lack of motivation from school authorities; (c) truancy and irregular pupil attendance; (d) a lack of training for teachers on school-based assessment; (e) inadequate time allotted on the timetable for various subjects; and (f) a lack of SBA guidelines. Numerous research corroborates the conclusions of the present research.

Awoniyi (2016) found that mathematics teachers at Senior High Schools in the Cape Coast Metropolis faced hurdles such as a lack of assessment tools, inadequate record-keeping facilities, truancy and absenteeism, and assignment and classwork copying. In addition, favouritism, the submission of misleading findings by particular teachers due to their proximity to the students or their parents, insufficient time for test creation, inadequate training time, and a lack of expertise in assessment techniques were identified as impediments.

Similarly, the findings validated Nugba's (2012) study, which examined the efficacy, impact, and obstacles of implementing SBA in Obuasi Municipality. Inadequate equipment and facilities, non-availability of school-based assessment guidelines, lack of training for teachers on school-based assessment, and lack of assistance from GES in terms of resources were highlighted by teachers in the survey as challenges they encountered. Nugba observed that teachers lacked training prior to the adoption of SBA, and that a lack of equipment and facilities impeded the implementation of SBA's practical component.

The results confirm the conclusions of Lukman and Uwadiegwu (2012), who explored the challenges of school-based assessment as an innovation in the Nigerian educational system. As obstacles to school-based assessment, the study identified poor teacher training, a lack of teacher commitment, and excessive class sizes. In addition, Belay and Tesfaye (2017) identified large class sizes, instructor overload, absence of strict guidelines and lack of professional support and training on assessment issues, lack of immediate feedback to students, poor record keeping of assessment results, and lack of professional support as obstacles associated with continuous assessment.

Veloo and Md Ali (2016) explored the challenges instructors faced when implementing SBA in Physical Education (PE) in the Malaysian schooling system. They discovered insufficient knowledge of SBA, poor conditions and inadequate facilities and equipment for PE assessment, and insufficient time for PE evaluation. In addition, Mhishi et al. (2012) identified

a lack of formal training and proficiency in SBA as one of the most significant barriers to the implementation of SBA.

Teachers spend a great deal of time administering school-based assessments, according to the data. This supports the findings of Omorogiuwa and Aibangee (2017), who found that teachers lacked adequate time to complete SBA. Again, Veloo and Md-Ali (2016) noted insufficient time for PE assessment as one of three major problems teachers faced when applying SBA in Physical Education inside the Malaysian educational system.

**Chapter Summary**

This chapter discussed the findings of the study. Analyzed and discussed were five research questions and two hypotheses. The study revealed that pre-service teachers had knowledge about SBA. It was also observed that pre-service teachers had positive attitude towards the application of SBA in schools. Pre-service teachers had adequate time for SBA implementation. SBA was further seen to have impact on pre-service teachers' methods of instruction. Pre-service teachers used SBA to identify the learning needs of students. Teachers further indicated that they faced challenges such as non-availability of SBA guidelines, truancy, irregular pupil attendance and shortage of materials when implementing SBA in schools.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Overview

The study examined the school-based assessment knowledge and practices of pre-service teachers in colleges of education in the central region. The study was primarily descriptive and focused on (a) teachers' knowledge of School-Based Assessment, (b) teachers' attitudes toward the application of SBA guidelines, (c) the impact of SBA on teachers' instructional methods, (d) how teachers implement School-Based Assessment in schools, and (e) the difficulties teachers encountered when implementing SBA.

The research was conducted in colleges of education in Central Region. This study utilized pre-service instructors from the Central Region. Teachers were chosen for the study using a systematic sampling procedure. For this study, descriptive survey methodology was utilized. 370 respondents were obtained instead of 375, giving a return 98.67%. The data collection instrument was a 46-item questionnaire. Included in the statistics were frequencies, percentages, means, standard deviations, independent t-tests, and analyses of variance.

## Key Findings

Key findings from the study:

1. Teachers concurred with assertions that they have sufficient knowledge of the usage of teaching aids to improve students' comprehension and knowledge of School-Based Assessment for the goal of enhancing students' overall performance.

2. The teachers agreed with the assertions that they had a favourable attitude toward the application of School Based Assessment standards in schools by utilizing SBA results to improve their own teaching and being ready to conduct the teaching and learning process through SBA.
3. The findings of the study revealed that teachers concurred with the assertions that the school-Based Assessment influenced instructors' ways of instruction by making teaching more engaging.
4. The teachers agreed with the comments that they experienced challenges in the process of implementing SBA. These challenges included truancy and inconsistent pupil attendance.
5. There was no statistically significant difference in the pre-service teachers' attitudes on the implementation of the SBA based on their gender.
6. The results of the second hypothesis showed that there was a statistically significant variation in the level of knowledge about SBA held by teachers at different ages. Generally, pre-services teachers who are older have greater knowledge of SBA than the younger teachers.

**Conclusions**

It may be stated that teachers have a general understanding of School-Based Assessment. The study indicated that, generally, teachers see the implementation of School-Based Assessment criteria in their schools favourably. This could be attributed to the fact that teachers consistently utilized SBA. In addition, it can be argued that school-based assessment was frequently implemented by teachers.

Truancy and inconsistent student attendance posed obstacles to the implementation of SBA. Therefore, it might be inferred that, on general, teachers who participated in the study encountered obstacles when implementing SBA, and that effective implementation of SBA by teachers would be challenging in the absence of steps to mitigate these obstacles.

**Recommendations**

The following policy and practice recommendations are provided based on the research findings.

1. The results suggested that teachers were knowledgeable about school-based assessment. The researcher urge that the Ghana Education Service and other stakeholders provide pre-service teachers in Komenda and Foso with timely in-service training in order to keep them updated of modern concerns on SBA, such as the tasks required. Again, pre- service teachers would have a better grasp of the SBA concept, allowing them to advocate it to peers.
2. Pre-service teachers in the two colleges have a better attitude on the implementation of SBA rules. The researcher urges that headteachers and other education stakeholders encourage teachers and pre-service teachers to have a favourable attitude toward the deployment of SBA. This will ensure that pre-service teachers are continually up-to-date on the most recent SBA criteria so that they may utilize it in the classrooms.
3. The school-Based Assessment has an effect on teachers' instructional strategies. Therefore, researcher suggests that teachers and pre-service teachers in the KEEA district incorporate the SBA concept into their

instruction. This would enable teachers to recognize the broader impact of SBA in their classrooms.

4. The National Teaching Council and the GES should consider altering the teaching schedule in order to provide sufficient instructional time for SBA activities in a variety of topic areas.
5. Management of school in the two districts should connect with PTA through meetings and workshops for parents to help them understand the importance of their children's regular school attendance and continued enrolment. This will reduce absenteeism and irregular student attendance.

**Suggestions for Further Research**

1. The study was exploratory in character. It is proposed that the study be reproduced in other districts of the country in order to accept or reject the study's findings and generalize them to the entire nation.
2. Future study investigating the efficacy, effects, and obstacles of implementing School-Based Assessment should employ qualitative approaches, as they are more complete and freer of the biases that result from utilizing self-reported questions or quantitative methods.

## REFERENCES

Abdullah, N., Idris, N., Hamzah, M. S. G., & Sembak, S. (2015). Planning and implementation of school-based assessment (SBA) among teachers. *Procedia-Social and Behavioral Sciences*, *211*, 247-254.

Adane, L. O. (2013). Factors affecting low academic achievement of pupils in Kemp Methodist Junior High School in Aburi, Eastern region [Doctoral dissertation, University of Ghana].

Adeloju, S. A., Aboyeji, C. M., Adekiya, A. O., & Dunsin, O. (2020). Personality Traits and Performance of Students in Nigeria. *Academic Journal of Economic Studies*, *6*(3), 127-139.

Aduloju, M. O., Adikwu, O., & Agi, C. I. (2016). School-based assessment: Implication for national development. *Open Access Library Journal*, 3, 1-8.

Ahenkora, A. (2019). *The implementation of school-based assessment in keea District in central region of Ghana* [Doctoral dissertation, University of Cape coast].

Ahmedi, A. (2019). The language assessment literacy needs of Iranian EFL teachers with a focus on reformed assessment policies. *Language Testing in Asia*, *9*(1), 1-14.

Aibangbee, E. O. (2017). Factors influencing the effectiveness of school-based assessment in public Junior Secondary Schools in Benin City (Nigeria). *Journal of Nursing, Social Studies, Public Health and Rehabilitation*, 1(2), 7–15.

Airasian, P. W. (1994). *Classroom assessment*. New York, NY: McGraw Co., Hill.

Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behaviour relation: Reasoned and automatic processes. *European Review of Social Psychology*, *11*(1), 1-33. Alabah (2012).

Allen, M. J., & Yen, W. M. (2001). *Introduction to measurement theory*. Waveland Press.

Alyahyan, E., & Düştegör, D. (2020). Predicting academic success in higher education: literature review and best practices. *International Journal of Educational Technology in Higher Education*, *17*(1), 1-21.

Amedahe, F. K. (1998). *Models of combining continuous assessment scores with external examination scores for selection and certification* [Doctoral dissertation, University of Pittsburgh].

Amedahe, F. K. (1991). Establishing Cut-Off Points in Examinations. *Journal of the Institute of Education*, *2*(1), 19.

Amedahe, F. K. (2000). Issues in combining continuous assessment scores with external examination scores for certification at the basic and secondary school levels: Issues in combining continuous assessment scores with external examination scores for certification at the basic and secondary school levels. *Journal of Educational Management*, *3*, 110-127.

Amedahe, F. K. (2004). Research methods notes for teaching. *Unpublished Manuscript*.

Amedahe, F. K. (2014). *The issue of falling educational standards in Ghana: A perception or reality?* Cape Coast: University of Cape Coast Press

Amoah, S. A. (2005). Article 2 Contribution of Continuous Assessment to Student Learning in Mathematics in Senior Secondary Schools: Case Study of the Birim South District. *Mathematics Connection*, 15.

Anamuah-Mensah, J. Education in Africa: Time up!..

Amsami, B. U., Mohammed, D., & Mazila, 2015) Utilization of teaching aids in teaching of creative art in secondary schools in Maiduguri Educational Zone, Unpublished M. Ed dissertation, [University of Maiduguri].

Antonio, M. (2008). *Re-imagining school-based assessment at the upper secondary education level*. Adelaide, South Australia, Australia: Wadsworth Thompson Learning.

Asch, R. L. (1976). Teaching beliefs & evaluation. *Art Education*, *29*(6), 18-24.

Awoniyi, F. C. (2016). The understanding of Senior High School mathematics teachers of school-based assessment and its challenges in the Cape Coast Metropolis. *British Journal of Education*, *4*(10), 22-38.

Bachman, L. F. (2004). *Statistical analyses for language assessment book*. Cambridge University Press.

Belay, S., & Tefsaye A. The perceived quality enhancement opportunities of Continuous Assessment in Higher Education: the case of Dire Dawa University, Ethiopia.

Berry, R. (2008). *Assessment for learning* (Vol. 1). Hong Kong University Press.

Beynon, C. A., Geddis, A. N., & Onslow, B. A. (2001). *Learning-to teach: Concepts and cases for novice teachers and teacher educators*. Toronto: Prentice-Hall.

Bichi A, A. (2016). Classical test theory: An introduction to linear modeling approach to test and item analysis. *International Journal for Social Studies*, *2*(9), 27-33.

Bobis, J., & Gould, P. (2000). Changing the professional knowledge of teachers. In J. Bana, & A. Chapman (Eds.), *Mathematics education beyond 2000* (Proceeding of the 23rd annual conference of the mathematics education research group of australasia, fremantle: 47-54). Sydney: MERGA.

Borko, H. (1997). Teachers' developing ideas and practices about mathematics performance assessment: Successes, stumbling blocks, and implications for professional development. *Teaching and Teacher education*, *13*(3), 259-278.

Boston, C. (2002). *The Concept of Formative Assessment.* Available at http://pareonline. net/getvn.asp? v=8&n=9.

Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment & evaluation in higher education*, *31*(4), 399-413.

Brophy, J. (1991). Activities as instructional tools: A framework for analysis and evaluation. *Educational Researcher*, *20*(4), 9-23.

Brown, G. T. L. (2001). School based assessment methods: Development and implementation. *Journal of Assessment Paradigms*, *1*(1), 30-32.

Brown, G. T. (2004). Teachers' conceptions of assessment: Implications for policy and professional development. *Assessment in Education: Principles, Policy & Practice*, *11*(3), 301-318.

Brown, S. (2001). Assessment for learning. *Learning and Teaching in Higher Education*, (1), 81-89.

Brown, G. T. (2004). Assessing assessment for learning: Reconsidering the policy and practice. *Making a Difference in Education and Social Policy*, 121-137.

Brown, G. T., & Remesal, A. (2012). Prospective teachers' conceptions of assessment: A cross-cultural comparison. *The Spanish Journal of Psychology*, *15*(1), 75-89.

Bujang, M. A. (2021). A step-by-step process on sample size determination for medical research. *The Malaysian journal of medical sciences: MJMS*, *28*(2), 15.

Burton S. (1992). Where do we begin with inquiry-based degree programs. Journal of Music Teacher Education. 13, 21-32

Calderhead, J. 1996. Teachers: Beliefs and knowledge. In: DC Berliner & RC Calfee (eds). *Handbook of Educational Psychology*. New York: Simon & Schuster Macmillan.

Carnoy, M. (1999). The family, flexible work and social cohesion at risk. *Int'l Lab. Rev.*, *138*, 411.

Cizek, G. J., Fitzgerald, S. M., & Rachor, R. A. (1995). Teachers' assessment practices: Preparation, isolation, and the kitchen sink. *Educational Assessment*, *3*(2), 159-179.

Clark, C. M & Peterson P. L. (1986) Teachers' thought processes. *Third handbook of research on teaching*. New York Macmillan 255-296

Chan. Y. F., Sihdu, G. K., & Md. Yunus, M. R. (2006). The knowledge and best practices of secondary school ESL teachers in school-based assessment. University Teknology Mara.

Chapman, K. (2010). *Ensuring Standards are Kept*. The Star. Retrieved June 4, 2012, from http://thestar.com.my/education/story.asp?sec=educatio n& file=/2010/7/4/education/6589510.

Cheah, U. H. (2010, February). Assessment in primary mathematics classrooms in Malaysia. In *Fourth APEC-Tsukuba International Conference: Innovation of Mathematics Teaching and Learning through Lesson Study-Connection between Assessment and Subject Matter–17-21 February*.

Chen, P. P. (2003). Exploring the accuracy and predictability of the self-efficacy beliefs of seventh-grade mathematics students. *Learning and individual Differences, 14*(1), 77-90.

Chew, S.C., Mohammed, H., & Hassan, N.F.H.N. (2017). Unilateral vocal cord palsy: finding the culprit. *Egyptian Journal of Ear, Nose. Throat and Allied Sciences, 18(2)*, 141-142.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Abingdon: Routledge.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed). *Abingdon, Oxon*.

Craig, H., & Perraton, H. (2003). Open and distance education for continuing professional development. *Teacher Education through Open and Distance Learning.* New York: Routledge Falmer.

Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. Holt, Rinehart and Winston, 6277 Sea Harbor Drive, Orlando, FL 32887.

Curriculum Research and Development Division, (2011). Teachers' handbook on school-based assessment for upper primary six. Accra: Ministry of Education.

Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching*. Center for American Progress.

Darling-Hammond, L., & McCloskey, L. (2008). *Darling-Hammond, Linda, and Laura McCloskey," What Would It Mean to be Internationally Competitive*?" Phi Delta Kappan, 90 (December, 2008), 263-272.

Davison, C. (2007). Views from the Chalk face: English Language SBA in Hong Kong. *Language Assessment Quarterly*, *4*(1), 37-68.

DeLuca, C., Chavez, T., Bellara, A., & Cao, C. (2013). Pedagogies for preservice assessment education: Supporting teacher candidates' assessment literacy development. *The Teacher Educator*, *48*(2), 128-142.

Deneen, C. C., & Brown, G. T. (2016). The impact of conceptions of assessment-on-assessment literacy in a teacher education program. *Cogent Education*, *3*(1), 1225380.

Dietel, R. J., Herman, J. L., & Knuth, R. A. (1991). What does research say about assessment? North Central Regional Educational Laboratory.

DeVellis, R. F., & Thorpe, C. T. (2021). *Scale development: Theory and applications*. Sage publications.

Downs, V. J. (2012). *Reducing disruptive behaviour during lunchtime in urban elementary students: A comparison of two school-based lunchtime interventions* [Doctoral dissertation, North-eastern University].

Ebel, R. L., & Frisbie, D. A. (1991). *Essentials of educational measurement* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Edelenbos, P., & Kubanek-German, A. (2004). Teacher assessment: The concept of 'diagnostic competence'. *Language Testing, 21*(3), 259-283.

Etienne, P. (2007). *Mauritia; Continuous assessment still only on Paper*. Port Louis, Express.

Etsey, Y. K. A. (2003). Pre-service teachers‟ knowledge of continuous assessment techniques in Ghana. *Journal of Educational Development and Practice, 1*(1), 1-18.

Faleye, A.B. & Ojerinde-Dibu (2005). *Some Outstanding Issues in Assessment for Learning. Paper* presented at the IAEA Conference. Ile-ife, Nigeria

Faridah, S., & Mohini, M. (2012). Kerangka pengetahuan guru cemerlang matematik dan bagaimana digunakan bagi memilih contoh bahan pengajaran matematik. *Asia Pacific Journal of Educators and Education, 27*(6), 69-86.

Flores, R. (2020). Informal Formative Assessment Conversations in Mathematics: Focusing on Preservice Teachers' Initiation, Response and Follow-Up Sequences in the Classroom. *Eurasia Journal of Mathematics, Science and Technology Education*, *16*(10).

Fook, C. Y., & Sidhu, G. K. (2006). School-based assessment among ESL teachers in Malaysian, secondary schools. *Malaysian Education Deans' Council Journal, 9,* 2011, 7587.

Ghaicha, A. (2016). Theoretical Framework for Educational Assessment: A Synoptic Review. *Journal of Education and Practice*, *7*(24), 212-231.

Gallagher, J. D. (1998). *Classroom assessment for teachers*. Prentice Hall.

Garrison, C., & Ehringhaus, M. (2007). *Formative and summative assessments in the classroom*. http://www.amle.org/Publications/Web Exclusive/Assessment/tabid/1120/Default.

Goodings, R. M., & Portland, M. (1995). *Changing priorities in teacher education.* Nichols Publishing Co. New York, 133.

Graham, C. (2005). The economics of happiness. *World Economics*, *6*(3), 41-55.

Gruaume, P., & Naidoo, D. (2004). Assessment and classroom learning. *Assessment in Education*, *5*(1), 27-28.

Hambleton, R. K., & Jones, R. W. (1993). Comparison of classical test theory and item response theory and their applications to test development. *Educational measurement: Issues And Practice*, *12*(3), 38-47.

Hamzah, M. S. G. B., Idris, N., Abdullah, S.K., Abdullah, N., & Muhammad, M. M. (2015). Development of the double layer rubric for the study on the implementation of school-based assessment among teachers. *US-China Education Review B, 5(4)*, 245-256.

Haney, J. J., Czerniak, C. M., & Lumpe, A. T. (1996). Teacher beliefs and intentions regarding the implementation of science education reform strands. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, *33*(9), 971-993.

Harlen, W. (2005). Teachers' summative practices and assessment for learning–tensions and synergies. *Curriculum Journal, 16*(2), 207-223.

Heritage, M. (2010). Formative assessment and next-generation assessment Systems: Are We Losing an Opportunity? *Council of Chief State School Officers, 4*(2), 3-6.

Hong Kong Professional Teachers' Union (PTU) in 2013

Huitt, W. (2000). *The information processing approach*. Educational Psychology Interactive. Valdosta, GA: Valdosta State University. Retrieve from https://chiron.valdosta.edu/whuitt/col/cogsys/infoproc.htm

Hsu, L. (2005). Concept maps as an assessment tool in a nursing course. *Journal of Professional Nursing*, *21*(3), 141-149.

Iddrisu, R. O. (2020). *Teachers" knowledge and practices of school-based assessment at primary schools in the Savelugu Municipality* [Doctoral dissertation, University of Cape Coast].

Illingworth, M. (2012). Education in the age of the information superhighway: An investigation into initial teacher training in Canada. *Canadian Journal of Education, 35*(3), 180–193.

Ismadiah, O. (2012). *Pelaksanaan SBA di Sekolah-sekolah Kebangsaan Sekitar Gelang Patah, Johor*. Projek Sarjana Pendidikan (Pengukuran dan Penilaian), Universiti Teknologi Malaysia. Retrieved from http://www.fp.utm.my/epusatsumber/pdffail/ptkghdfwp/projek_3_kandungan.pdf.

John, I. (2002). *Using assessment strategies to inform student learning, Faculty of Education, Language and Community Studies*. University Melbourne, Australia: RMIT.

Kahn, H. J. (2000). *Assessment as a means of improved quality of life through education.* Institute of education, Lesotho: National University of Lesotho.

Kaira, L. (2002). *Malawi teachers' knowledge and attitudes towards standardized tests.*

Kamarudin, A., & Leong, Y. P. (2011). *Implementation of year 4 mathematics curriculum in Brunei Darussalam*. Proceedings 16th International Conference on Education. Universiti Brunei Darussalam.

Kankam, B., Bordoh, A., Eshun, I., Bassaw, T. K., & Korang, F., Y. (2014). An investigation into authentic assessment practices of social studies teachers in the senior high schools (SHSs) in Ghana. *American Journal of Social Sciences, 2*(6), 166-172.

Kapambwe, W. M. (2006). *A formative evaluation of the implementation of the Continuous Assessment Pilot Programme (CAPP) at the Basic School Level in Zambia.* [Unpublished MA Ed Thesis, University College Dublin].

Kelly, A. V. (2004). *The curriculum theory and practice* (5 th ed.). London: Sage Publications, Inc.

Kim, S., & Feldt, L. S. (2010). The estimation of the IRT reliability coefficient and its lower and upper bounds, with comparisons to CTT reliability statistics. *Asia Pacific Education Review, 11*(2), 179–188.

Koh, K. H. (2011). Improving teachers' assessment literacy through professional development. *Teaching Education, 22*(3), 255-276.

Kolo, I. A. (2014). Problems of continuous assessment in schools. *Journal of Education* 3 – 9.

Koloi-Keaikitse, S. (2012). *Classroom assessment practices: A survey of Botswana Primary and secondary school teachers.* [Unpublished Doctoral thesis, Ball State University]. University of Cape Coast https://erl.ucc.edu.gh/jspui

Kraglund-Gauthier, W. L. (2014). Using inquiry-based learning to identify issues and develop pedagogical awareness of teaching with technology: A self-study from a pre-service teacher education class. In J. M. Carfora & P. Blessinger (Eds.), *Inquiry-based learning for arts, humanities, and social sciences programs: A conceptual and practical resource for educators* (Innovations in Higher Education Teaching and Learning, Vol. 2, pp. 197–217). Bingley, UK: Emerald

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607-610.

Lancaster, G. A., Dodd, S., & Williamson, P. R. (2004). Design and analysis of pilot studies: recommendations for good practice. *Journal of Evaluation in Clinical Practice*, *10*(2), 307-312.

Leedy, D. P., & Ormrod, E. J. (2010). Research: Planning and design (9th ed.) Merril, Upper Saddle River: Pearson Education Inc.

Levy-Vered, A., & Alhija, F. (2015). Modelling beginning teachers' assessment literacy: The contribution of training, self-efficacy, and conceptions of assessment. *Educational Research and Evaluation*, *21*(5-6), 378-406.

Lingam, G. I., & Lingam, N. (2016). Developing school heads as instructional leaders in school–based assessment: Challenges and next steps. *Australian Journal of Teacher Education*, *41*(2), 91-105.

Linn, R.L, & Gronlund, N.E, (1995). *Measurement and Assessment in Teaching.* (4th Ed) London: Harper Collins Publishers.

Lukman, S. A., & Uwadiegwu, A. A. (2012). School-based assessment as an innovation in Nigeria educational system: The implementation challenges. *Knowledge Review*, *25*(1), 123-126.

MacGaw, J. (2006). *Research in education-evidenced-based inquiry*, International Edition. Boston: Pearson Education: Pergamous Press.

Malaysia Examination Board (2012). Malaysia education blueprint 2013-2025.

Malaysia Ministry of Education (2011). Surat pekeliling /Khtlsas B/Langan 'F Tahun 2011: Pelaksanaan Kurikulum Standard Sekolah Rendah (KSSR) Tahap Satu Mulai 2011.

Mansor, A. N., Wong, K. E., Rasul, M. S., Hamzah, M. I., & Hamid, A. H. (2012). Effective Classroom Management. *International Education Studies, 5*(5), 35-42. http://dx.doi.org/10.5539/ies.v5n5p35

Mansor, A. N., & Yusoff, N. (2013). The benefits of school-based assessment. *Asian Social Science*, *9*(8), 101.

McLeod, S. A. (2014). Lev vygotsky.

McMillan, J.H. (2000). *Classroom Assessment: Principles and Practice for Effective Instruction*. Pearson Technology Group. Retrieved October 30, 2001, from http://www.pearsonptg.com/book_detail/0,3771,02052 9751X, 00.html.

McMillan, J. H. (2000). Fundamental Assessment Principles for Teachers and School Administrators. *Practical Assessment, Research & Evaluation, 7*(11). Retrieved August 14, 2007, from http://pareonline.net/ getvn.asp ? v=7&n=8.

Mctighe, J., & O'connor, K (2005). Seven practices for effective learning. *Educational Leadership 63*(3), 10–17.

Md-Ali, R., Veloo, A., & Krishnasamy, H., N (2015). Implementation of school- based assessment: The experienced teachers‟ thoughts. *Australian Journal of Basic and Applied Sciences, 9*(18), 72-78.

Mehrens, W. A., & Lehman, I. J. (1991). *Measurement and evaluation in education and psychology* (4th ed.). New York: Holt, Rinehart & Winston.

Mereku, E., Nabie, B., Appiah, K., & Awanta, D. (2011). The practice of continuous assessment in Teacher Training Colleges in Ghana. *Journal of Educational Development and Practice, 1*(1), 58-71.

Miller, B S., Linn, J. T., & Gronlund, G. F. (2009). *Handbook on formative and summative evaluation of student learning*. McGraw-Hill Book Company.

Ministry of Education. (2008). *Guidelines for implementation of improved school education reform*. Accra: Ghana Publishing Company.

Mhishi, M. Mandoga, E., Tuniera, N., & Bhukuvhani, C. E. (2012). *An Assessment of the 2009 Zimbabwe Government's Decision to Enrol Pupils into Form One Using School-Based Assessment as an Alternative Examinations*. *International Education Studies, (4),* 31-38.

Naimah, A. (2011). *Assessment for learning.* Cambridge: University of Cambridge.

Nitko, A. J. (1995). *Educational tests and measurements* (3th ed.). Prentice Hall, Inc. Upper Saddle River, New Jersey).

Nitko, A. J. (2001). *Educational tests and measurements* (3rd ed.). Upper Saddle, New Jersey: Prentice-Hall, Inc.

Norani, M. N., & Saifulazri, S. (2010). Pelaksanaan pentaksiran kerja kursus berasaskan sekolah bagi mata pelajaran Kemahiran hidup di sekolah menegah kebangsaan daerah Johor Baharu. *Jurnal Pendidikan, 24*(3), 102-110.

Norazman, A., Nor'ain, M. T., & Nur-Fazliana, R. (2012). Kualiti Pengajaran dan Pembelajaran Guru Matematik. *Discovering Mathematics, 34*(1), 105-112.

Nugba, R. M. (2012). *Implementation of school-based assessment in the Obuasi Municipality: Effectiveness, impact and challenges.* [Unpublished Master's thesis, University of Cape Coast, Cape Coast].

OECD (2005). *Education at a glance: OECD indicators.* Paris: OECD Publishing.

Oduro-Okyireh, G. (2008). *Testing practice of Senior Secondary School teachers in the Ashanti Region of Ghana (Doctoral dissertation, University of Cape Coast).*

Ogunniyi, M. B. (1984). *Educational Measurement and Evaluation.* Essex U. K. Longman group Ltd.

Ojo, K. E., & Gbinigie, O. U. (2009). School-Based Assessment skills needed by teachers in Nigerian secondary schools. *Journal of Home Economics Research, 10-11*, 45–54.

Okonkwo, S. C. (2002). An evaluation of continuous assessment standards and practices in Nigeria secondary schools. *Journal of Quality Education.*

Omorogiuwa, K., O., & Aibangbee, E. O. (2017). Factors influencing the effectiveness of school-based assessment in public Junior Secondary Schools in Benin City (Nigeria). *Journal of Nursing, Social Studies, Public Health and Rehabilitation, 1*(2), 7–15.

Opara, I. M., Onyekuru, B. U., & Njoku, J. U. (2015). Predictive power of school- based assessment scores on students‟ achievement in Junior Secondary Certificate Examination (JSCE) in English and Mathematics. *Journal of Education and Practice, 6(9)*, 112-116.

Othman, N., & Shah, M.I.A. (2013). Problem-Based Learning in the English Language Classroom. English Language Teaching, 6(3), 125-134.

Oyedeji, S. O. (2016) Comparison of Senior Secondary School Mathematics in Nigeria and China. *Journal of Educational Policy and Entrepreneurial Research, 3,* 80-99.

Pajares, F. (1992). Self-efficacy beliefs in academic settings. *Review of Educational Research, 4*(7), 3-8.

Popham, W. (2009). *Assessment for Educational Leaders*. United States: Allyn & Bacon.

Popham, W. J. (2009). Assessment literacy for teachers: Faddish or fundamental? *Theory into practice, 48*(1), 4-11.

Purvin, N. (2011). *How do secondary students in Bangladesh make sense of school-based assessment*? [Unpublished master's thesis. University of Canterbury].

Remesal, A. (2011). Primary and secondary teachers' conceptions of assessment: A qualitative study. *Teaching and teacher education, 27*(2), 472-482.

Reyneke, M. (2016). School-based assessment in English language teaching: weighing the cow will not fatten it. *Per Linguam, 32*(2), 1-14

Ryan, T. G. (2008). Action research: An essential teacher development mode. In A. Garuba & L. Irwin (Eds.), *Teaching and education for teaching in developing countries: Essays in honour of Professor Jophus Anamuah-Mensah* (pp. 45–54). Ghana, Africa: SACOST, University of Education, Winneba.

Salmiah, S., Ramlah, H., Abd-Rahim, B., & Abdullah, M. R. (2011). *Keprihatinan Guru Dalam Perlaksanaan SBA: Perubahan Dalam Penilaian Pendidikan*. Prosiding Seminar Majlis Dekan-Dekan Pendidikan (pp.877-888).

Saracho, O. N. (2023). Theories of child development and their impact on early childhood education and care. *Early Childhood Education Journal, 51*(1), 15-30.

Shavelson, R. J. (2006). *On the integration of formative assessment in teaching and learning with implications for teacher education*. Paper prepared for the Stanford Education Assessment Laboratory and the University of Hawaii Curriculum Research and Development Group

Smith, L. F., Hill, M. F., Cowie, B., & Gilmore, A. (2014). Preparing teachers to use the enabling power of assessment. In *Designing assessment for quality learning* (pp. 303-323). Springer, Dordrecht.

Sonja, L. & Flores, M. A. (2022). Conceptions of assessment in pre-service teachers' narratives of students' failure. *Cambridge Journal of Education, 52*(1), 55-71.

Stiggins, R. J. (1985). The ecology of classroom assessment. *Journal of Educational Measurement, 22*, 271–286.

Stiggins, R. (2005). From formative assessment to assessment for learning: A path to success in standards-based schools. *Phi Delta Kappan, 87*(4), 324-328.

Stiggins, R. J. (2010). Essential formative assessment competencies for teachers and school leaders. *Handbook of formative assessment*, 233-250.

Stiggins, R. J. (2002). Assessment crisis: The absence of assessment for learning Phi Delta Kappan, 83(10), 758-765.

Suskie, L. (2018). *Assessing student learning: A common sense guide*. John Wiley & Sons.

Talib, R., Naim, H. A., Ali, N, S, M., & Hassan, M., A., M. (2014). *School-based assessment: A study on teacher's knowledge and practices*. IGCESH 2014 - University Teknologi Malaysia, Johor Bahru, Malaysia 19-21 August 2014.

Tan, A. M. (2010). *SBA di Malaysia: Kesediaan guru, isu dan panduan perlaksanaan*. Kuala Lumpur: Gerak Budaya Enterprise.

Teo, T. (2008). Pre-service teachers' attitude towards computer use: A Singapore survey. *Australian Journal of Educational Technology, 23*(4), 413-424.

Thompson, M. & William, D. (2005). *Integrating assessment with learning: What will it take to make it work?* The future of assessment: Shaping teaching and learning. C. A. Dwyer. Mahwah, NJ, Lawrence Erlbaum Associates.

Tittle, C. K. (1994) Toward an Educational Psychology of Assessment for Teaching and Learning: Theories, Contexts, and Validation arguments. *Educational Psychologist, 29*, 149-162

Tong, S. Y. A., & Adamson, B. (2015). Student voices in school-based assessment. *Australian Journal of Teacher Education* (Online125-136.

Utusan, B. (2012). *Continuous assessment, practicum, and quality of business education programmes in Nigeria RHEA*, 39 - 49.

Van den Berg, R. (2002). Teachers' meanings regarding educational practice. *Review of Educational Research, 72*(4), 577-625.

Veloo, A., Krishnasamay, N., & Md-Ali, R. (2015). Teachers' knowledge and readiness towards implementation of school-based assessment in secondary schools. *International Education Studies, 8*(11), 194 – 195.

Veloo, A., & Md-Ali, R. (2016, August). *Teachers' challenges in the implementation of school-based assessment in physical education.* Paper presented at the International Soft Science Conference.

Veloo, A., Ramli, R., & Khalid, R. (2016). Assessment practice among English teachers in Malaysian Secondary Schools. *International Journal for Infonomics (IJI), 9*(4), 1220-1227.

Vygotsky, L. (1978). Interaction between learning and development. *Readings on the Development of Children, 23*(3), 34-41.

Wang, J. R., Kao, H. L., & Lin, S. W. (2010). Preservice teachers' initial conceptions about assessment of science learning: The coherence with their views of learning science. *Teaching and Teacher Education, 26*(3), 522-529.

William, D. (2017). *Five Key Strategies for Effective Formative Assessment.* Reston, VA: The National Council of Teachers of Mathematics.

Xu, Y., & Brown, G. T. (2016). Teacher assessment literacy in practice: A reconceptualization. *Teaching and Teacher Education, 58,* 149-162.

Xu, Y., & He, L. (2019). How Pre-service Teachers' Conceptions of Assessment Change Over Practicum: Implications for Teacher Assessment Literacy. In *Frontiers in Education* (p. 145). Frontiers.

Yan, Z. (2014). Predicting teachers' intentions to implement school-based assessment using the theory of planned behaviour. *Educational Research and Evaluation, 20*(2), 83-97.

Yin, S. Y. A., & Adamson, B. (2015). Student voices in school-based assessment. *Australian Journal of Teacher Education (Online)*, *40*(2), 15-28.

Yoloye, E. A. (1991). Continuous assessment-A simple guide for teachers. Ibadan: University Press PLC.

Yong, H. T., & Lim, C. S. (2008). *Implementing School-Based Assessment: The Mathematical Thinking Assessment (MATA) Framework*. Buku Koleksi Bahan Seminar Inovasi Pedagogi IPBL

Zeleke, A. S. (2010). *A comparative study on the practice of continuous assessment between Addis Ababa and Unity Universities*. Institute of Educational Research, Addis Ababa University, Ethiopia, 5.

# APPENDICES

## APPENDIX A

## QUESTIONNAIRES

## UNIVERSITY OF CAPE COAST

## DEPARTMENT OF EDUCATION AND PSYCHOLOGY

## SCHOOL-BASED ASSESSMENT QUESTIONNAIRE FOR FINAL YEAR PRE-SERVICE TEACHERS

Dear respondent,

Please, kindly complete this questionnaire to assist the researcher obtain information for a study that investigates 'KNOWLEDGE AND PRACTICE OF SCHOOL-BASED ASSESSMENT OF PRE-SERVICE TEACHERS IN KOMENDA AND FOSO COLLEGES OF EDUCATION IN CENTRAL REGION'.

Your involvement in its full will aid in making informed decisions regarding the school-based assessment for teachers and pre-service teachers. Therefore, it would be appreciated if you could respond truthfully to all questions on the form. You are ensured complete secrecy and anonymity with regard to all given information. Your name and/or school will never be published or publicized in conjunction with your responses to the survey questions. Consequently, you should not write your name or the name of your school on any part of the instrument. Participation in this research project is entirely voluntary. You are hereby granted permission to freely engage in this study by completing the various sections of this questionnaire.

Thank you.

**Section A: Demographic Characteristics**

1. Gender:
   Male [ ]
   Female [ ]

2. Age
   18-21 [ ]
   22-25 [ ]
   26-29 [ ]
   30-33 [ ]
   34 above [ ]

3. Subject taught
   English [ ]
   Mathematics [ ]
   Science [ ]
   Social Studies [ ]
   Others [ ]

4. Location of school
   Rural [ ]
   Urban [ ]

**Section B: Knowledge Level on SBA**

Directions: Please indicate with a tick [√] your level of knowledge in SBA. Where: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree

| S/N | ITEM | SA | A | D | SD |
|---|---|---|---|---|---|
| 5 | SBA standardizes the practice of assessment across the nation's schools. | | | | |
| 6 | SBA provides reduced assessment tasks for each subject taught in primary school. | | | | |
| 7 | The SBA provides me with guidelines for developing assessment items/questions and other assessment tasks. | | | | |
| 8 | SBA Provides instructions regarding the marking and grading of test items/questions and other assessment tasks | | | | |
| 9 | SBA introduces achievement standards for | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | each subject and class in each school. system. | | | | |
| 10 | The SBA implements a system of moderation to assure the validity and reliability of marks. | | | | |
| 11 | SBA advises me on how to increase student performance through remedial education on tough curriculum topics. | | | | |
| 12 | I have sufficient expertise on the use of teaching aids to facilitate students' understanding of lesson content using SBA. | | | | |
| 13 | The SBA system includes 12 assessments per year. | | | | |

**Section C: Attitude towards the Application of SBA Guidelines**

Directions: Please indicate with a tick [√] your level of knowledge in SBA. Where: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree.

| S/N | ITEM | SA | A | D | SA |
|---|---|---|---|---|---|
| 14 | I have sufficient time to implement SBA in the classroom. | | | | |
| 15 | The SBA has enhanced my teaching experience. | | | | |
| 16 | I intend to employ alternative forms of assessment instead of SBA | | | | |
| 17 | Always using the SBA for classroom assessment was a pleasure for me. | | | | |
| 18 | When I become a teacher, I will be able to facilitate the teaching and learning process using SBA. | | | | |
| 19 | It is simple for me to implement innovations in teaching and learning that are consistent with SBA's assessment. | | | | |

**Section D: Impact of SBA on Pre-Service Teachers' Instructional Methods**

Directions: Please indicate with a tick [√] your level of knowledge in SBA.

Where: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree

| S/N | ITEM | SA | A | D | SD |
|---|---|---|---|---|---|
| 20 | SBA has improved my teaching techniques. | | | | |
| 21 | SBA makes my lessons more engaging. | | | | |
| 22 | SBA assists me in identifying pupils' learning needs. | | | | |
| 23 | My method of instruction is influenced by the SBA. | | | | |
| 24 | SBA assists me in adapting instruction to meet varying student requirements. | | | | |
| 25 | SBA facilitates my capacity to provide students with useful feedback. | | | | |
| 26 | Using SBA enables me to give immediate feedback to pupils. | | | | |
| 27 | SBA enables me to do more activity-based work and fewer class tests. | | | | |
| 28 | SBA makes it simple for me to assess pupils, enabling me to modify my instructional strategies as needed. | | | | |
| 29 | When necessary, I am able to provide appropriate group exercises. | | | | |
| 30 | I am capable of completing specific SBA-required projects. | | | | |
| 31 | I am capable of ensuring that all project tasks are assigned using knowledge and skills from various subjects | | | | |
| 32 | I am able to guarantee that my classroom training includes real-world and unfamiliar examples to motivate students to apply their knowledge to issues of various complexity. | | | | |
| 33 | I employ a variety of testing modes in the classroom. | | | | |

**Section E: Methods and Process of Implementing SBA**

Directions: Please indicate with a tick [√] your level of knowledge in SBA.

Where: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree

| S/N | ITEM | SA | A | D | SD |
|---|---|---|---|---|---|
| 34 | I am able to adhere to SBA modes without difficulty. | | | | |
| 35 | End of the first month of the first term, I am able to administer individual tests. | | | | |
| 36 | I supervise the administration of Task 3 as an individual test at the end of the eleventh week of of the term | | | | |
| 37 | In addition to the SBA, I am able to use class exercise and homework as means of continuously evaluating students' class performance and motivating them to improve their learning performance. | | | | |
| 38 | I verify that task 4 is a term-long assignment to be completed and submitted at the end of the term. | | | | |
| 39 | My classroom instruction uses the real and unfamiliar projects as examples to motivate students to apply their knowledge to issues of varied degrees of difficulty. | | | | |
| 40 | I ensure that the total scores on the end-of-semester exam are scaled to 50 before adding the SBA marks and end-of-term exam marks to establish the end-of-term grades for each student. | | | | |

**Section F: Challenges of SBA**

Directions: Please indicate with a tick [√] your level of knowledge in SBA.

Where: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree

| S/N | ITEM | SA | A | D | SD |
|---|---|---|---|---|---|
| 41 | It is quite tough for me to effectively execute SBA due to the large number of students. | | | | |
| 42 | The lack of proper guidelines hinders my capacity to effectively utilize SBA in the classroom. | | | | |
| 43 | Lack of SBA orientation for pre-service teachers makes implementation difficult for me. | | | | |
| 44 | Absenteeism and irregular student attendance hinder the successful execution of the SBA. | | | | |
| 45 | The school administration keeps inadequate SBA records. | | | | |
| 46 | The SBA is time-intensive. | | | | |
| 47 | The implementation is difficult due to a lack of logistical and physical support from the school administration. | | | | |
| 48 | Insufficient motivation from school administrators and mentors hinders the successful implementation of the SBA. | | | | |
| 49 | Insufficient time allocated on the timetable for various subjects hinders the efficient implementation of SBA. | | | | |
| 50 | Insufficient time to prepare for SBA in terms of acquiring the necessary information and resources. | | | | |

## APPENDIX B

## RELIABILITY BASED ON KNOWLEDGE IN SBA

### Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .787 | 9 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| KNOWLEDGE1 | 23.89 | 24.225 | .480 | .766 |
| KNOWLEDGE2 | 23.81 | 24.829 | .446 | .771 |
| KNOWLEDGE3 | 23.86 | 23.911 | .542 | .757 |
| KNOWLEDGE4 | 23.71 | 24.348 | .453 | .770 |
| KNOWLEDGE5 | 23.69 | 24.319 | .494 | .764 |
| KNOWLEDGE6 | 23.84 | 23.905 | .506 | .762 |
| KNOWLEDGE7 | 23.84 | 24.566 | .399 | .778 |
| KNOWLEDGE8 | 23.78 | 24.549 | .485 | .765 |
| KNOWLEDGE9 | 23.74 | 24.621 | .462 | .768 |

**Reliability test based on attitude towards SBA**

### Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .745 | 6 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| ATTITUDE1 | 14.91 | 12.390 | .486 | .707 |
| ATTITUDE2 | 14.82 | 11.688 | .575 | .682 |
| ATTITUDE3 | 14.95 | 12.307 | .474 | .711 |
| ATTITUDE4 | 14.68 | 12.933 | .467 | .713 |
| ATTITUDE5 | 14.81 | 12.076 | .537 | .693 |
| ATTITUDE6 | 15.21 | 12.595 | .372 | .743 |

**Reliability test based impact of SBA**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .837 | 14 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| IMPACT1 | 35.47 | 59.963 | .367 | .832 |
| IMPACT2 | 36.04 | 56.139 | .587 | .819 |
| IMPACT3 | 35.99 | 56.981 | .473 | .826 |
| IMPACT4 | 35.59 | 59.748 | .345 | .834 |
| IMPACT5 | 36.05 | 56.853 | .509 | .824 |
| IMPACT6 | 35.78 | 58.157 | .461 | .827 |
| IMPACT7 | 36.17 | 55.347 | .581 | .819 |
| IMPACT8 | 35.87 | 57.607 | .435 | .828 |
| IMPACT9 | 36.21 | 56.908 | .436 | .829 |
| IMPACT10 | 36.17 | 56.436 | .513 | .823 |
| IMPACT11 | 36.35 | 57.237 | .435 | .829 |
| IMPACT12 | 36.49 | 56.641 | .453 | .828 |
| IMPACT13 | 36.35 | 56.461 | .508 | .824 |
| IMPACT14 | 35.99 | 56.978 | .491 | .825 |

Reliability test based on methods used by pre-service teachers

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .529 | 7 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| METHODS1 | 17.74 | 9.389 | .174 | .530 |
| METHODS2 | 17.58 | 9.561 | .144 | .544 |
| METHODS3 | 17.51 | 9.015 | .352 | .455 |
| METHODS4 | 17.58 | 8.905 | .365 | .449 |
| METHODS5 | 17.51 | 9.351 | .243 | .497 |
| METHODS6 | 17.25 | 9.286 | .275 | .485 |
| METHODS7 | 17.31 | 9.156 | .322 | .467 |

Reliability test based on the challenges faced by pre-service teachers

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .822 | 10 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| CHALLENGES1 | 27.76 | 29.184 | .476 | .809 |
| CHALLENGES2 | 27.60 | 30.127 | .387 | .818 |
| CHALLENGES3 | 27.77 | 27.695 | .541 | .802 |

| | | | | |
|---|---|---|---|---|
| CHALLENGES4 | 27.73 | 28.825 | .520 | .804 |
| CHALLENGES5 | 27.68 | 27.591 | .610 | .794 |
| CHALLENGES6 | 27.65 | 28.994 | .551 | .802 |
| CHALLENGES7 | 27.80 | 28.603 | .502 | .806 |
| CHALLENGES8 | 27.55 | 30.368 | .434 | .813 |
| CHALLENGES9 | 27.54 | 29.512 | .525 | .804 |
| CHALLENGES10 | 27.66 | 28.939 | .512 | .805 |

**Total reliability test of the instrument**

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 370 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 370 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .876 | 46 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| KNOWLEDGE1 | 131.74 | 307.947 | .288 | .875 |
| KNOWLEDGE2 | 131.65 | 308.541 | .288 | .875 |
| KNOWLEDGE3 | 131.71 | 304.319 | .409 | .873 |
| KNOWLEDGE4 | 131.56 | 306.296 | .328 | .874 |
| KNOWLEDGE5 | 131.54 | 303.415 | .436 | .872 |
| KNOWLEDGE6 | 131.68 | 302.748 | .432 | .872 |
| KNOWLEDGE7 | 131.69 | 304.664 | .353 | .874 |
| KNOWLEDGE8 | 131.63 | 301.968 | .493 | .871 |
| KNOWLEDGE9 | 131.59 | 302.557 | .463 | .872 |
| ATTITUDE1 | 131.65 | 303.810 | .406 | .873 |
| ATTITUDE2 | 131.56 | 300.393 | .489 | .871 |
| ATTITUDE3 | 131.69 | 304.191 | .381 | .873 |
| ATTITUDE4 | 131.42 | 304.234 | .437 | .872 |
| ATTITUDE5 | 131.55 | 302.232 | .452 | .872 |
| ATTITUDE6 | 131.95 | 302.326 | .394 | .873 |
| IMPACT1 | 131.28 | 305.390 | .437 | .873 |
| IMPACT2 | 131.85 | 301.747 | .493 | .871 |
| IMPACT3 | 131.80 | 303.983 | .386 | .873 |
| IMPACT4 | 131.40 | 304.827 | .417 | .873 |
| IMPACT5 | 131.86 | 302.352 | .454 | .872 |

| | | | | |
|---|---|---|---|---|
| IMPACT6 | 131.59 | 304.276 | .433 | .872 |
| IMPACT7 | 131.98 | 300.805 | .473 | .872 |
| IMPACT8 | 131.68 | 302.679 | .427 | .872 |
| IMPACT9 | 132.02 | 303.848 | .360 | .874 |
| IMPACT10 | 131.98 | 304.409 | .377 | .873 |
| IMPACT11 | 132.16 | 305.556 | .328 | .874 |
| IMPACT12 | 132.30 | 305.024 | .329 | .874 |
| IMPACT13 | 132.16 | 303.612 | .397 | .873 |
| IMPACT14 | 131.79 | 303.660 | .408 | .873 |
| METHODS1 | 131.95 | 303.615 | .390 | .873 |
| METHODS2 | 131.79 | 302.367 | .422 | .872 |
| METHODS3 | 131.72 | 313.986 | .142 | .877 |
| METHODS4 | 131.79 | 313.697 | .149 | .877 |
| METHODS5 | 131.71 | 313.782 | .135 | .877 |
| METHODS6 | 131.45 | 315.804 | .079 | .878 |
| METHODS7 | 131.51 | 310.034 | .270 | .875 |
| CHALLENGES1 | 131.63 | 309.404 | .261 | .875 |
| CHALLENGES2 | 131.47 | 312.488 | .172 | .877 |
| CHALLENGES3 | 131.64 | 309.575 | .220 | .876 |
| CHALLENGES4 | 131.60 | 311.595 | .198 | .876 |
| CHALLENGES5 | 131.55 | 307.571 | .300 | .875 |
| CHALLENGES6 | 131.52 | 311.633 | .215 | .876 |
| CHALLENGES7 | 131.67 | 310.275 | .221 | .876 |
| CHALLENGES8 | 131.42 | 311.647 | .232 | .876 |
| CHALLENGES9 | 131.41 | 311.473 | .234 | .875 |
| CHALLENGES10 | 131.54 | 310.146 | .243 | .875 |

## APPENDIX C

## ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
*ETHICAL REVIEW BOARD*

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref.: CES/ERB/ucc/edu/vol/22-67 Date: 19/08/2022

Your Ref: .....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Hanna Kofi Obo ..., Reg. No. EF/MEP/20/0003 is a M.Phil. / Ph.D. student in the Department of Education and Psychology ... in the College of Education Studies University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Knowledge and practice of school-based assessment of pre-service teachers in some selected colleges of education in the Central Region of Ghana

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

*Chairman, CES-ERB*
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

*Vice-Chairman, CES-ERB*
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

*Secretary, CES-ERB*
Prof. Linda Dzama Forde
ldforde@ucc.edu.gh
0244786680