

**UNIVERSITY OF EDUCATION, WINNEBA**

**CLASSROOM ASSESSMENT: PRIMARY TEACHERS' PERCEPTIONS  
AND PRACTICES IN THE ANYAKO/AFIADENYIGBA CIRCUIT OF  
THE KETA MUNICIPAL ASSEMBLY (KeMA)**

**HOPE KUMATOR**

**7140130037**

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**JANUARY, 2017**

**DECLARATION**

**STUDENT'S DECLARATION**

I, Hope Kumator, declared this day that this dissertation with exception of quotations and references cited which have been identified and duly acknowledged, is entirely my original work, and it has not been submitted either in part or whole for same or another degree in any other institution.

SIGNATURE .....

DATE .....

**SUPERVISOR'S DECLARATION**

I hereby declared that the preparation of this research work was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: PROF. RUBY HANSON

SIGNATURE OF SUPERVISOR.....

DATE.....

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May God bless you all.

## **DEDICATION**

I dedicate this work to the memory of my mother, Gbeda Keku.



## TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGMENTS	iii
DEDICATION	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT	ix
CHAPTER 1	
INTRODUCTION	1
1.0 Overview of the study	1
1.1 Background of the study	1
1.2 Statement of the Problem	3
1.3 Purpose of the study	4
1.4 Objectives of the study	4
1.5 Research Questions	5
1.6 Significance of the study	5
1.7 Limitations of the study	6
1.8 Delimitations of the study	6
1.9 Organization of the study	7
CHAPTER 2	
LITERATURE REVIEW	8
2.0 Overview	8
2.1 Conceptual framework	8
2.2 Teachers' perceptions of classroom assessment	11
2.3 Assessment Practices	16

2.4 Influence of Teachers' Perceptions of Classroom Assessment on Assessment Practices	20
2.5 Nature and Dynamics of Assessment	22
CHAPTER 3	
METHODOLOGY	23
3.0 Overview	23
3.1 Research design	23
3.2 Population	23
3.3 Sample size	24
3.4 Sampling technique	24
3.5 Instrumentation	25
3.6 Validity	26
3.7 Reliability	26
3.8 Procedure for data collection	27
3.9 Data analysis	27
CHAPTER 4	
RESULTS AND DISCUSSIONS	28
4.0 Overview	28
4.1 Results	28
4.1.1 Demographic characteristics of respondents	28
4.1.2 Research Question 1: How do primary teachers perceive classroom assessment in science?	30
4.1.3 Research Question 2: What kind of assessment methods and tools do primary teachers use to assess their pupils in science?	36

4.1.4 Research Question 3: What is the influence of teachers' perceptions of classroom assessment on their classroom assessment practices?	39
4.2 Discussions of Results	43
4.2.1 How do primary teachers perceive classroom assessment in science?	43
4.2.2 What kind of assessment methods and tools do primary teachers use to assess their pupils in science?	46
2.2.3 What is the influence of teachers' perceptions of classroom assessment on their assessment practices?	49
CHAPTER 5	
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	52
5.0 Overview	52
5.1 Summary of findings	52
5.2 Conclusions	54
5.3 Recommendations	56
REFERENCES	57
APPENDICES	65
Appendix A	65
Appendix B	66
Appendix C	69

## LIST OF TABLES

Table 4.1 Gender of respondents	28
Table 4. 2 Experience in teaching of respondents	29
Table 4. 3 Academic and professional qualification of respondents	29
Table 4. 4 Frequency distribution of primary teachers' perceptions of assessment	30
Table 4. 5 Current assessment practices used by the teachers	36
Table 4. 6 Test items and assessment practices used by the teachers	42





## LIST OF FIGURES

Figure 2.1: Perception framework	10
Figure 4. 1 Assessment practices mostly used by the teachers	39
Figure 4. 2: How often the teachers assess their pupils	40
Figure 4. 3: Assessment methods considered most important by the teachers	41



## **ABSTRACT**

This study investigated teachers' perceptions of classroom assessment and their current classroom assessment practices in science. A total of 22 teachers comprising of 9 males and 13 females drawn from four primary schools in the Anyako/Afiadenyigba circuit of Keta Municipal Assembly (KeMA) were involved in the study. Questionnaire was used as the main source of data collection instrument. The data collected helped to establish the teachers' perceptions of classroom assessment and their assessment practices in science. Document analysis was used to corroborate the information collected through the use of the questionnaire. In addition, document analysis provided first-hand information on the kind of assessment practices used by the teachers in the study. Data from document analysis showed that what teachers said about their classroom assessment practices were not reflected in their assessment techniques. Results of this study revealed that majority of the teachers used short answer test items that seek to measure the knowledge base of the pupils as against test items that measure the analytic ability of the pupils.

It therefore concluded that, there is a high level of negative perceptions of classroom assessment among teachers in the study area. These perceptions have influence on their classroom assessment practices.

This study recommends that, the education directorates should aim at organizing regular and effective in-service training for teachers on the relevance of assessment and how to use the various assessment methods to guide the teaching and learning process.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Overview of the study**

This chapter consists of the background of the study, statement of the problem, purpose of the study, objectives, research questions, significance of the study, limitation, delimitations and organization of the study.

#### **1.1 Background of the study**

Assessment is an essential aspect of effective teaching and learning. In Ghana teaching is not complete without assessment. Teachers on a daily basis assess their students in various forms. There are basically two forms of assessment which include alternative assessment (normative assessment) and summative assessment. Normative assessment includes all forms of assessments that take place on a daily basis. Examples include class exercises, home works, group works and so on. Summative assessment includes all forms of assessment that are given at the end of a term, semester or course. Examples include end of term or semester examinations, Basic Education Certificate Examination (BECE), and West African Secondary School Certificate Examination (WASSCE). Teachers are often happy when their students perform very well on a task given them while on the other hand they become very worried and even frustrated when the students perform poorly. Scriven cited in Mussawy (2009), proposes the use of both formative and summative assessments in order to make the distinction between the roles of evaluation.

Mussawy concluded that assessment is perceived to serve two different purposes; informative; which is to improve instruction and summative; which is to measure students' achievement.

In Ghana, every year, students perform poorly in mathematics and science when the BECE and WASSCE results are released. This implies that mathematics and science teachers must adopt innovative strategies in their teaching processes. In the Keta Municipal Assembly (KeMA), in order to overturn this poor performance, the education directorate is strongly monitoring teachers' assessment of pupils at the basic level. This is what the directorate termed 'output of work'- that is the number of exercises given by a teacher to pupils in a week. The circuit supervisors (CS) move from one basic school to another, usually twice in a term to check the total number of exercises given by a teacher. This signifies that the education directorate of KeMA holds the view that effective classroom assessment can lead to an improvement in students' performance.

According to Van de Wale (2001), most students perceive mathematics and science as a difficult subject which has no meaning in real life. This perception, he said, begins to develop at the primary school where pupils find the subjects very abstract. This trend continues to Junior High School (JHS) and Senior High School (SHS) and transcends to college or university. This, he said, is due to the fact that principles and concepts in science makes little or no sense to many students hence their poor performance in the subject. During or after science lessons, learners memorize examples, follow instructions, do their home works and take tests but they cannot interpret their answers. However, effective classroom assessment can help pupils understand these principles and concepts

in order to improve their performance in science. This is because assessment is an essential tool for engaging students in learning as well as for sustaining their commitment and efforts to study. Students usually concentrate and devote most of their times to study if they know that at the end of the topic they will be assessed. Classroom assessment gives students guidance on their performance and contributes to improving their learning process. It also provides feedback on students' progress over a period of time so that any errors or learning difficulties can be identified and corrected by both teachers and students.

## **1.2 Statement of the Problem**

Classroom assessment has become an integral aspect of teaching and learning. It provides feedback to both teachers and students about students' performance. According to Ndalichako (2015), students tend to concentrate and pay keen attention to their studies if they know that at the end of a topic they will be assessed. Assessment plays a very important role in motivating students' learning and in the formation of good study habits.

In line with this, KeMA has introduced what is termed, "output of work", to monitor teachers' assessments of pupils. However, this monitoring only focuses on the number of exercises given, without taking into account the type and quality of these exercises. On the other hand, the monitoring often generates into arguments and at times exchange of words between some CS's and some teachers regarding the number of exercises to be given in a term. Hence the need for this study as a search through available literature revealed no research on teachers' perceptions of classroom assessment and their assessment practices in science in KeMA.

### **1.3 Purpose of the study**

Teachers play a very important role in shaping the future of children by interacting with them. The most common type of interaction between teachers and students is through classroom instructions and assessment of learners' achievement (Kitta, 2014). Assessment is a useful tool that helps in improving both teaching and learning and is crucial in ensuring the quality of education offered. Assessment can contribute to enhancing the quality of education if appropriate decisions and measures obtained from assessment are effected.

A study conducted by Eggen and Kauchak (2004), revealed that assessment is one of the most basic and difficult tasks that teachers face in their work. According to Fennema and Romberg (1999), the way teachers perceive assessment may influence the way they teach and assess their students. Hence this study sought to investigate primary teachers' perceptions of classroom assessment in science and their current assessment practices in the Anyako/Afiadenyigba circuit of KeMA.

### **1.4 Objectives of the study**

The objectives of this study were to:

1. Investigate primary teachers' perceptions of assessment in science in the Anyako/Afiadenyigba circuit of KeMA
2. Investigate current assessment practices used by primary teachers to assess their pupils in Anyako/Afiadenyigba circuit of KeMA

3. Determine the influence of teachers' perceptions of classroom assessment on their assessment practices in KeMA.

### **1.5 Research Questions**

This study was designed to investigate teachers' perceptions of assessment and the current classroom assessment practices by primary school teachers in science in four selected schools in the Anyako/Afiadenyigba circuit of KeMA. The following research questions guided the study:

1. How do primary teachers perceive assessment in science?
2. What kind of assessment methods and tools do primary teachers use to assess their pupils in science?
3. What is the influence of teachers' perceptions of classroom assessment on their classroom assessment practices?

### **1.6 Significance of the study**

The results of this study may help teachers in the study area to further develop their perceptions or correct their perceptions about classroom assessment. This will enable them to improve upon their strengths and correct their weaknesses in assessment in order to modify their assessment techniques for the learning needs of the pupils for the attainment of higher academic performance.

The results of this study may also help other primary school teachers and teachers at other levels of the educational structure to appreciate the relevance of assessment and

adopt appropriate assessment strategies to effectively assess their learners to improve upon their academic achievement in science.

School heads in collaboration with district education directorates can use the results of this study to develop appropriate assessment guidelines for their schools.

The Ghana Education Service (GES), which is responsible for the professional development of teachers, may use the results to develop in-service training programmes for teachers on classroom assessment.

Finally the results from this study could also add to the existing literature on classroom assessment practices.

### **1.7 Limitations of the study**

The study was inhibited by limited time since the researcher had to combine teaching with the research work.

In addition, due to financial constraints, only some selected schools in the Anyako/Afiadenyigba circuit of KeMA were considered for the study. This is because the researcher could not afford the high budget of travelling from school to school and printing of large volumes of materials needed to cover a larger population.

### **1.8 Delimitations of the study**

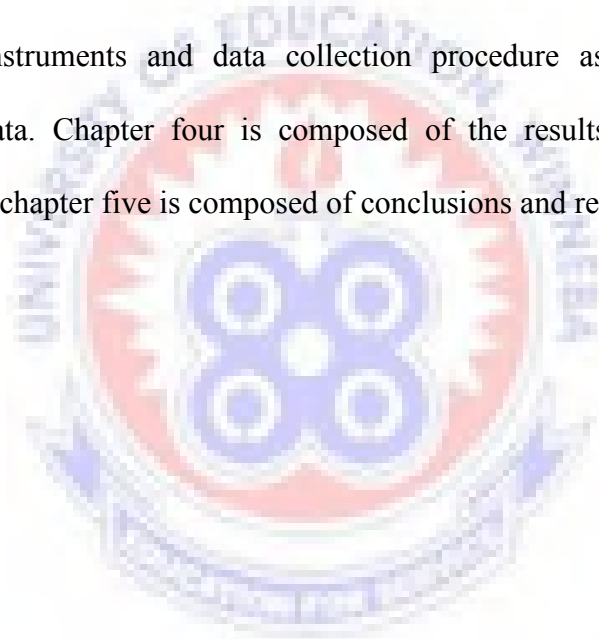
Even though there are nine primary schools in the Anyako/Afiadenyigba circuit of KeMA, this study focused on only four schools.



## **1.9 Organization of the study**

This study is presented in five different chapters. Chapter one comprehensively deals with the background of the study, the statement of the problem that informs this research, objectives, as well as the research questions, significance of the study, limitations, delimitations, and the organization of the study.

The review of literature relevant to the study is contained in chapter two. Chapter three deals with the design of the study, population, sample size and sampling technique. It also includes instruments and data collection procedure as well as procedure for analysing the data. Chapter four is composed of the results and discussions of the findings. Finally chapter five is composed of conclusions and recommendations.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Overview

This chapter presents the literature reviewed for the study. The following themes were reviewed:

- Theoretical framework
- Teachers' perceptions of classroom assessment.
- Assessment practices
- Influence of teachers' perception of classroom assessment on assessment practices
- Nature and dynamics of assessment

#### 2.1 Conceptual framework

This study was guided by the Teachers' Assessment Perception Framework.

According to Miles and Huberman (2013), conceptual framework is a written or visual presentation that explains either graphically, or in narrative form, the main things to be studied such as key factors, concepts or variables and the presumed relationships among them.

According to Marsh (2008), teachers are required to have knowledge and skills, academic and professional qualifications as well experiences to monitor students' learning and measure their achievements against learning objectives. Besides, teachers also need to

have skills and knowledge in developing and using assessment methods. Teachers are also required to obtain academic qualification from higher educational institutions in education to make them eligible to be competent teachers. This is because academic qualifications and teaching experience of teachers positively affect their perceptions towards assessment. According to Britner and Pajares (2006), teachers are required to qualify themselves with specialization of subjects so that they can perform at their maximum level. This is because teachers who are specialized in science can select appropriate assessment methods for the academic benefit of students.

The assessment practices used by teachers in the framework include class tests, quizzes, assignments, group works, project works, practical activities, drills and examinations. These practices are directly affected by teachers' academic qualifications, teaching experience, and class size. Teachers are expected to have positive perceptions about classroom assessment to determine what is to be measured, and then define it precisely so that tasks can be constructed that measure the intended knowledge, skills and understanding. The overall effect is that, teachers with positive perceptions about classroom assessments are likely to adopt effective assessment techniques to frequently assess pupils. Consequently, this will lead to improved academic performance by pupils. The conceptual framework of this study as shown in Figure 2.1 below was built, based on teachers' perceptions of classroom assessment, assessment practices and the influence of teachers' perceptions on assessment practices. According to the framework, teachers' perceptions of classroom assessment have an influence on their assessment practices hence its implication on test items.

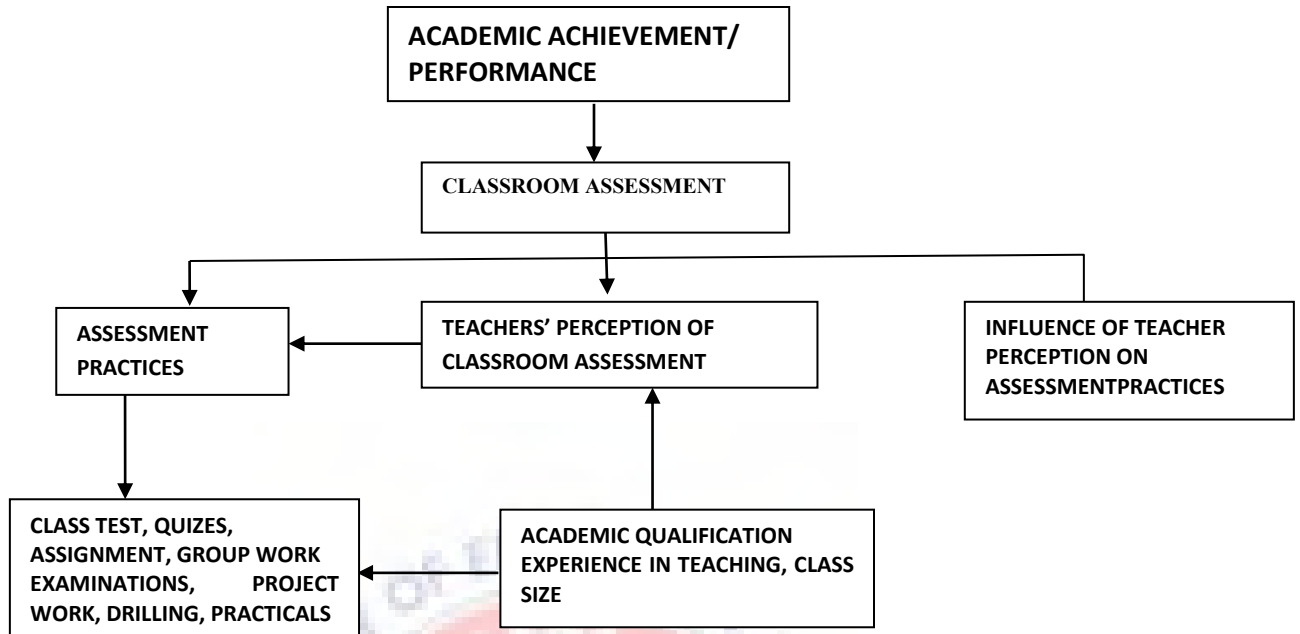


Figure 2.1 Perception framework

Survey research design in education involves the collection of information from members of a group of students, teachers or other groups of persons associated with educational issues. Atweh, Bleicker and Cooper (1998), opined that, the aim of a survey is to obtain information which could be analyzed and patterns extracted and comparison made. According to them, great care must be taken to ensure the sample population is truly representative. In a survey, all respondents will be asked the same questions as far as possible in the same circumstances. Answering of questions is not as easy as it seems, and careful piloting is very necessary to ensure that all questions mean the same to all the respondents as possible (Calderhead, 1996; Cillessen & Lafontana, 2002).

The choice of survey design is to enable researchers to gather relevant data which could be analyzed using transcript frequencies and giving detailed description. This design is preferred, taking into consideration the demands of the study and the purpose of it in

relation to the research questions. However, survey research designs have some limitations because they do not allow the researcher to control the environment and also come to deeper understanding of the processes and contextual differences among the variables in the research. Survey research design relies greatly on subjects' sincerity, motivation, and ability to respond to questionnaire items (Fraenkel & Wallem, 1993, Fraenkel & Wallem, 2000).

Another source of obtaining data is by document analysis. Document analysis is a systematic procedure for reviewing or evaluating documents, both written or printed and electronic (computer-based and internet-transmitted) material. It requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008; Rapley, 2007, Rogers 2007). Documents contain text (words and images that have been recorded without a researcher's intervention. Atkinson and Coffey cited in Bowen (2009) refer to documents as 'social facts which are produced, shared, and used in socially organized ways. Documents that may be used for systematic evaluation as part of a study take a variety of forms. They include advertisements, agendas, attendance registers, and minutes of meetings, manuals, background papers, books and brochures, diaries and journals, event, programs, letters and memoranda, maps and charts, newspapers and so on.

## **2.2 Teachers' perceptions of classroom assessment**

Classroom assessment is one of the essential tools teachers can use to inform the teaching and learning of their pupils. According to Harlen (2007), assessment involves the process of collecting evidence and making judgments relating to outcomes such as students'

achievement of particular goals of learning. Assessment is very important in the teaching and learning process as it determines whether learning is taking place, what learning took place and what learning still needs to take place. However, the way teachers perceive assessment is very crucial for implementing assessment strategies.

Researchers have attempted to investigate teachers' perceptions of assessment in many different ways. A study conducted by Fennema and Romberg (1999), revealed that the way teachers perceive assessment may influence the way they teach and assess their students. Chester and Quilter (1998), also believed that studying teachers' perceptions of assessment is important in the sense that it provides an indication of how different forms of assessment are being used or misused and what could be done to improve the situation. In a study they conducted on in-service teachers' perceptions of classroom assessment, standardized testing, and alternative methods, concluded that teachers' perceptions of classroom assessment affected their classroom assessment practices. Teachers who attached less value to classroom assessment used standardized tests most of the times in their classrooms. From Chester and Quilter's study, teachers with negative experiences in classroom assessment and standardized testing are less likely to see the value in various forms of classroom assessments for their learners. They recommended, therefore, that in-service training should focus on helping teachers see the value of assessment methods rather than how to do assessment. In addition, a study conducted by Jere (2000), suggests that training classroom teachers on how to assess students would help to improve and enhance the quality of education. Also, a study conducted by Susuwele-Banda(2005), concluded that the training of teachers on classroom assessment is a good proposal but

can only be effective if the designers of the training programme know what teachers are already doing and what they are not doing well. Therefore research in this area can help contribute to the design of such training programmes.

Assessment is a very vital instrument for enhancing effective teaching and learning. According to Dhindsa, Omar, and Waldrip (2007), teachers need to use assessment to systematically gather data about students' achievement. Also from the findings of Ndalichako (2015), he suggested that assessment methods must be used by teachers in determining the extent to which students are achieving the intended learning outcomes for a particular course or programme. In a study conducted by Popham (2008), results revealed that majority of teachers surveyed agreed that classroom assessment is a tool that enables teachers to gather information about students' progress as well as the extent to which methods of instruction used are helping the students to achieve the intended outcomes. This is consistent with the findings of Susuwele-Banda (2005), which found that most teachers agreed that classroom assessment is a tool that helps teachers to establish what students already know and what they need to learn. However, a study conducted by Robert, Gerace, Mestre and Leanard (2000), found that majority of teachers surveyed disagreed that assessment is a tool that informs teachers about what students already know.

According to Yuankun (2015), teachers feel that an assessment represents a transitional stage in the teaching and learning process. It marks the end of one learning session, and the beginning of the next session. This is what Yuankun, referred to as assessment as an end product that enables teachers to move on to the next lesson. An assessment that

supports learning does not necessarily need to occur as an end product, instead it needs to occur prior to learning, in the midst of learning, as well as after learning. It also needs to be ongoing and sometimes reciprocal in order for the results to be useful (Frey & Schmitt, 2010). Struyven, Dochy and Janssens (2005), stated in their findings that the impact of assessment is significantly observable on students' performance by the marks they score in an assessment.

Vandeyar and Killen (2007), in their study on teachers' perceptions of classroom assessment concluded that teachers need to be trained in pedagogy of assessment since teachers cannot use assessment strategies that they do not understand or for which they lack the skills. Similarly Hariparsad's (2004), comparative case study of two Grade 8 science teachers showed how the respondents had a surface understanding of assessment practices which negatively affected their beliefs about classroom assessment. Also Thomas (2012) studied teachers in Pakistan in terms of their beliefs about classroom assessment. The study suggested the need for more professional development activities inside schools to expose teachers to contemporary approaches of assessment.

Sokopo (2004), found that teachers essentially believed that classroom assessment is merely for accumulation of marks, and this causes curricular outcomes to be reduced to a checklist. In addition, Susuwele-Banda (2005), in a study about teachers' perceptions of classroom assessment and practices in mathematics found that teachers consider classroom assessment as not a true reflection of pupils' performance. However, a study conducted by Stiggins and Chappius (2005), concluded that classroom assessment provides feedback to teachers to modify the teaching and learning process. Also a study



conducted by Ndalichako (2015), on secondary school teachers' perceptions of assessment in Tanzania found that majority of teachers in the study area perceived that assessment does not interfere with teaching and learning. In this same study, he found that majority of the teachers disagreed that assessment makes it difficult for teachers to cover the syllabus.

According to Cavangah, Waldrip, Romanoski, Fisher, and Dorman (2005), assessment forms and tasks selected by teachers and administrators depend on their perceptions of assessment. A study conducted by Shepard (2000), Gulikers, Bastiaens, Kirshner and Kester (2006), Pelligrino and Goldman (2008), revealed that teachers believe that assessment significantly affects students' approach to learning.

According to Roos and Hamilton (2005), teachers must perceive the value of assessment to go far beyond playing a role in the self-regulation of human learning, but also being able to support human development. Also Goodrum, Hackling, and Rennie (2001) concluded that assessment is a key component of the teaching and learning process. Hence, including students' and teachers' perceptions in designing assessment tools would be considered reasonable, given the fact that both students' preferences and teachers' rationale might influence the way students proceed with learning and the way it is tested. A study conducted by Stiggins (1999), on pre-service teachers with measurement training revealed that pre-service teachers tend to believe that standardized tests address important educational outcomes and believed that classroom tests are less useful. Also a study conducted by Beckmann, Senk and Thompson (1997), concluded that teachers' knowledge and beliefs influenced the characteristics of the test items and other

assessment instruments. Furthermore a study conducted by Cooney (1998), Garet and Mills (1995), Morgan and Watson (2002), McMillan, Myran, and Workman (2002), Geysler (2004), and Farnsworth and Boon (2010), found that most teachers view classroom assessment as an added requirement to their teaching job and not as a tool to improve their teaching skills.

### **2.3 Assessment Practices**

Assessment practices are activities conducted by teachers in order to modify teaching and learning. These practices enable teachers to elicit information that can be interpreted and used to make decisions about the next steps in instructional process. According to Kanjee (2009), Pryor and Lubisi (2002), Ransuran (2006), Sokopo (2004), and Vandeyar and Killen (2007), current assessment systems and/or practices used by teachers for addressing the learning needs of learners are inadequate. Kanjee (2009), posits that limited learning and teaching resources are available to specifically assist teachers in improving their classroom assessment practices. Also Van de Walle, (2001), found that in most schools assessment means testing and grading. A study conducted by McMillan, Myran, and Workman, (2002); as well as Mertler, (2009), revealed that assessment practices often used by teachers are not consistent with recommended practices.

Black, Harrison, Lee, Marshall, and William (2004), in their study on assessment practices used by teachers, identified three main challenges in assessment. The first challenge is that the assessment methods that teachers use are not effective in promoting goal learning. The second problem is that grading practices tend to emphasize competition rather than personal improvement. And the last but not least problem is that

assessment feedback often has a negative impact particularly on low-achieving students who are led to believe that they lack ability and so are not able to learn. According to Rowe (2012), assessment of learning is a form of a summative assessment which is intended primarily to compare students and report progress which rely on unit tests. According to Pat-El, Tillema, Segers, and Vedder (2013), a good measure of assessment for learning should have the capacity to track students' progress as well as the capacity to help students recognize areas for improvement. A study conducted by Stiggins (1998), Popham (1999), Schwartz and Webb (2002), found that tests are generally good tools for assessment of learning while other methods and tools such as journal writing, diagnostic interviews and observations are good for assessment for learning.

Beckmann, Senk and Thompson (1997), studied the assessment and grading practices of high school mathematics teachers. Their study revealed that the most frequently used assessment tools were tests and quizzes. The other forms of assessment used include written, projects or interviews with students. Beckmann, Senk and Thompson further found that test items were of low level, involved very little reasoning and were almost never open-ended. Also, studies conducted by Watson (2006) and Yuankun (2015), revealed that the most common assessment practices used by teachers include bell work, oral queries, classroom activities, quizzes, tests, and projects. However, conducted by Stiggins (2010), Missett, Brunner, Callahan, Moon, and Azano (2014), concluded that most teachers enjoy giving students' assessment activities that are project based, or group based. According to the teachers, project based assessments make it possible for students to push their learning to a higher level as it requires the students to apply their knowledge

and skills to solve real world problems. Group based activities make it possible for the students to interact and learn from each other.

McMillan, Myran, and Workman (2002), in a study, aimed to describe the nature of classroom assessment and grading practices. They found that teachers were mostly interested in assessing students' mastery or achievement and that performance assessment was used frequently. Morgan and Watson (2002), reported that most middle and high school teachers use teacher-constructed tests to assess students' achievement. In a study, Cooney (1998), surveyed high school mathematics teachers' assessment practices while Garet and Mills (1995), surveyed grade 4 to 12 mathematics teachers across the United States. Both studies reported that teachers mostly used short-answer tests for assessment. According to the findings of Stiggins (2002), teachers use readymade tests without making modifications to them. Also studies conducted by Bielenberg(1993), Bezuk, Cathcart, Vance and Pothier (2001), Lissitz and Schafer (2002), Van de Walle, (2001), revealed that in most schools, assessment mainly refers to tests, examinations and grading. In addition, Beckmann, Senk and Thompson (1997), and Brooks and Brooks (1999), found that teachers do not use multiple assessment methods. However, a study conducted by Brookhart (2002), revealed that teachers use different forms of assessment methods to assess their students in order to improve upon academic performance.

Although tests seem to be popular in schools, teachers seem to have different skills and views about tests. A study by Morgan and Watson (2002) revealed that different teachers interpreted similar students' work differently. McMillan (2001), studied the actual classroom assessment and grading practices of secondary school teachers in relation to a

specific class and determined whether meaningful relationships existed between teacher's assessment practices, grade level, subject matter, and ability levels of students. He found that there was no meaningful relationship between teachers' assessment practices, grade levels, subject matter and ability level. Fennell, Heiss, Kobett and Sammons (1992), suggested that specific training is necessary for teachers to learn to assess children's thinking by analyzing students' discourse. Shulman (2004), contends that most teacher education programmes skim over classroom assessment, leaving teachers to assess in the way they were assessed when they were in school. Sandvoll (2014) highlighted the importance for teachers to align their espoused theories with their assessment practice. Campbell and Evans (2000), evaluated pre-service teachers who had completed coursework in educational measurement and found that student teachers did not follow many assessment practices recommended during their coursework. As Greenstein (2010), pointed out, teachers and teacher candidates need support in developing assessment skills, through professional development activities and teacher education programmes. In particular, teacher education programs play an important role in ensuring that prospective teachers have a coherent view of classroom assessment, and a full understanding of different assessment practices.

According to Kifer (2001), the assessments best suited for teachers to guide improvements in students learning are the quizzes, tests, writing assignments, and other assessments that teachers administer on a regular basis in their classrooms. According to him, teachers trust the results from these assessments because of their direct relation to classroom instructional goals. These results are immediate and easy to analyze at the

individual student level. This is in support of the earlier findings of Bryant and Driscoll (1998), Guskey (2000), and Guskey (2003), which established that the teachers mostly use quizzes, tests, and other assessments practices to assess their students. A study conducted by Bertamini, Spooner, and Hecht (2004), concluded that teachers must employ practical activities in their assessments in order to make abstract concepts meaningful to students. A study conducted by Susuwele-Banda (2005), reveals that teachers often employ group assessment techniques in order to enhance pupils' comprehension of scientific concepts. Again studies conducted by Kadyoma (2004), and Dreyer (2008), revealed that majority of teachers agreed that the design of their assessments often incorporate tasks and roles.

The relevance of assessment in teaching and learning build the foundation for the current study involving teachers' perceptions of classroom assessment and their current assessment practices. Policy-makers can then analyze these assessment processes and draw on the extent to which teachers, as instructors, know about assessment in their classrooms.

#### **2.4 Influence of Teachers' Perceptions of Classroom Assessment on Assessment Practices**

The way teachers perceive classroom assessment can influence the type of assessment practices they employ to assess students. A study conducted by Arulappen (2013), concluded that teachers' perceptions of classroom assessment have an influence on their classroom assessment practices. This finding was supported by previous findings by Chester and Quilter (1998) which found that teachers' perceptions of classroom

assessment affected their classroom assessment practices. However, Buyukkarci (2014), studied the assessment beliefs and practices of language teachers in primary schools in Turkey, and concluded that while the teachers held positive views of assessment and feedback, they did not use assessments on a regular basis or in an effective way. Karp and Woods (2008), found that pre-service teachers' use of alternative/authentic assessments as well as traditional assessments affected their beliefs about assessment.

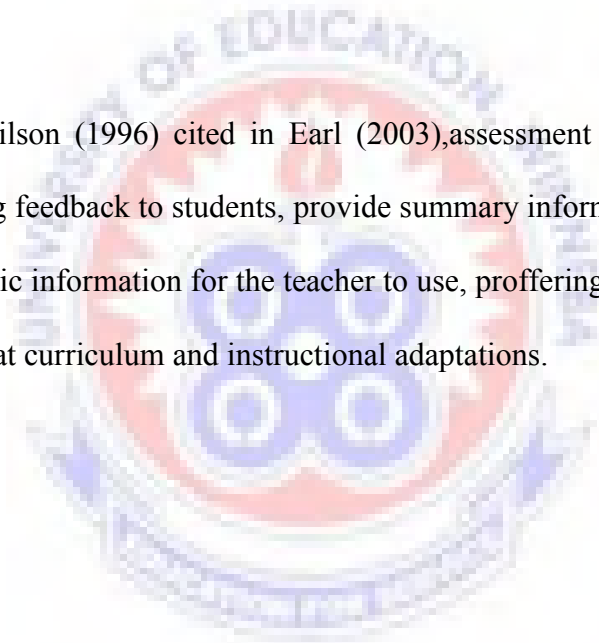
Assessment, therefore, is an important aspect of the work of every teacher and school, more especially if it can be used to promote teaching and learning (Cavanagh, Waldrip, Romanoski, Fisher & Dorman, 2005). According to Falchikov (2004), teachers perceptions made them assess in order to rank students and not to identify individual capabilities and weaknesses. He then concluded that assessment practices in most classes were limited, incomplete and not tied well to the learning activities. Classroom assessment should provide information to teachers for their own self-evaluation and the evaluation of their students (Mac Gilchrist, Myers, & Reed, 1997). Information from assessment should help the teachers to discover areas where students have difficulties and can, therefore, be used to modify teaching methods and strategies in order to support students' learning (Herrera, Murry, & Cabral, 2007).

Teachers' use of different forms of assessment methods represents one facet of the classroom assessment environment (Brookhart, 2002). However, according to Maslovaty and Kuzi (2002), little empirical research evidence exists about the effects of teachers' use of a particular form of assessment on the classroom assessment environment.

## **2.5 Nature and Dynamics of Assessment**

Assessment is broadly defined as a process of collecting information about individuals and groups for the purpose of making decisions (Puckett & Black 2008). They P and identified the following purposes of assessment: - assessment helps to identify, diagnose, and provide essential services to selected child and family population, assessment determines individual's developmental needs, strengths and aspirations. It determines individual's growth, development and learning progress and academic achievements and challenges.

According to Wilson (1996) cited in Earl (2003), assessment must satisfy many goals such as providing feedback to students, provide summary information for record keeping, offering diagnostic information for the teacher to use, proffering evidence for reports, and directing efforts at curriculum and instructional adaptations.





## CHAPTER 3

### METHODOLOGY

#### 3.0 Overview

This chapter presents the methodology for the study. The following areas were covered: research design, population, sample size, sampling technique, instrumentation, procedure for data collection, validity, reliability and data analysis.

#### 3.1 Research design

Descriptive survey design was adopted for the study. This design was adopted because it allows the researcher to collect information from teachers about their perceptions on classroom assessment and their assessment practices. Descriptive survey design sets out to describe and to interpret what a phenomenon is, and in this case, teachers' perceptions about assessment and assessment practices. The researcher therefore hoped that the survey design was more appropriate for this particular study. In addition, the researchers employ document analysis which provide first-hand information on teachers assessment practices

#### 3.2 Population

The target population for this study comprised sixty (60) primary teachers teaching in nine primary schools in the Anyako/Anlo Afiadenyigba circuit within the KeMA.

### **3.3 Sample size**

The sample size for this study is twenty-two (22) primary teachers teaching in four primary schools in the Anyako/Anlo Afiadenyigba circuit of the KeMA.

### **3.4 Sampling technique**

To select the schools involved in the study, the researcher used convenient sampling technique. Convenience sampling is a statistical method of drawing representative data by selecting subjects/people because of the ease of their volunteering or selecting units or because of their availability or ease of access. It is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher. Convenient sampling is usually used because it allows the researcher to obtain basic data and trends regarding his/her study without the complications of using a randomized sample.

During the time of data collection, teachers who were available were randomly selected from each school using a simple random sampling technique. The advantage of simple random sampling technique is the ease of assembling the sample. It is also a fair way of selecting a sample from a given population since every member has equal opportunity of being selected. Another advantage of a simple random sampling is its representativeness of the population. It also makes it possible to accurately estimate the characteristics of a target population without interviewing all the members of the population.

### 3.5 Instrumentation

For the purpose of this study, the researcher used questionnaire and document analysis.

Questionnaire is a simple device for the respondents to elicit information. Avoke and Avoke (2004), postulated that questionnaires are instruments that are designed to collect data for decision making in research. The type of a questionnaire used in this study is a combination of open-ended and closed ended statements. The major questionnaire items used for the data collection are in the form of the Likert scale. The items that were constructed by the researcher using the Likert scale were built on the five point Likert scale ranging from, Strongly Agree (SA) = 5; Agree (A) = 4; No idea (N) = 3; Disagree (D) = 2; to Strongly Disagree (SD) = 1. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys. They often have standardized answers that make it simple to compile data.

For the purposes of this study, the researcher also analysed pupils science exercise books in order to further ascertain assessment practices employed by the teachers. This also enabled the researcher to determine the influence of the teachers' perceptions on their assessment practices. The main items focused on were short answer exercises (such as list, state, name, mention, give) and exercises that entailed explanations (such as explain, describe, highlight, enumerate, draw and label, differentiate between) including practical works.

### **3.6 Validity**

The first step taken in order to achieve validity of the questionnaire items was to carefully construct the items to cover the key themes raised in the research questions. As Best and Khan (1997) pointed out, ensuring validity of questionnaires items is asking the right questions framed in the least ambiguous way. To ensure validity of the questionnaire items, a number of procedures were adopted by the researcher. In the first place, content related evidence was used where the questionnaire items were carefully design and built on the key variables forming the major themes raised in the research questions. Secondly the items were given out to peers who assessed the clarity of the statements, appropriateness of language, printing type and clarity of expressions. Finally, the items were taken to my supervisor for expert judgments. Tamakloe, Amedahe, and Attah (2005), suggested that any useful and good measuring instrument should possess the characteristics of stability and relevance, hence all the corrections and directions given were done before the items in the current study were taken for data collection.

### **3.7 Reliability**

To ensure reliability, the researcher administered the instrument to teachers in different schools not involved in the actual study. These respondents possess the same or similar characteristics as the respondents for the actual study. The respondents were asked to complete the questionnaires and to comment on the clarity of the items. All comments made were corrected before the actual administration of the items. This is in line with the proposal by Borg and Gall (1989), that while carrying out a pretest, one should select

individuals from a population similar to that from which one plans to draw research subjects.

### **3.8 Procedure for data collection**

An introduction letter was obtained from the Head of Department of Science Education, stating the purpose of the study and the need for participants to give their consent and cooperation. The letter was then sent to the heads of the selected schools in order to gain access to respondents.

### **3.9 Data analysis**

Analysis of data begun by identifying the major categories and prominent key themes that emerged from the data collected. In order to analyze the data for the study, the questionnaire items were coded, edited and categorized. This was done to further simplify the data for easier analysis.

To analyze the data, a critical tally was done by picking each set of questionnaire responded to by the respondents. The percentages of the scale chosen were tallied. These were then combined accordingly to determine the overall percentage of the total number of the respondents who answered each item and who chose each of the five point scale for each item. The same approach was adopted in analyzing the data obtained from the document analysis. Several categories emerged from the data including primary teachers' perceptions of classroom assessment in science, current assessment practices used by primary teachers to assess their pupils and influence of teachers' perceptions of assessment on their assessment practices.

## CHAPTER 4

### RESULTS AND DISCUSSIONS

#### 4.0 Overview

This chapter presents the results and the discussion of findings of the study. The findings are presented according to the research questions posed to guide the study. It also includes the results of demographic characteristics of the respondents.

#### 4.1 Results

##### 4.1.1 Demographic characteristics of respondents

The total number of respondents who took part in this study were twenty-two (22). Out of the total number, 9 representing 40.9 % were males while the remaining 13 representing 59.1s% were females as shown in Table 4.1 below.

**Table 4.1 Gender of respondents**

Gender	Frequency	Percentage
Male	9	40.9
Female	13	59.1
Total	22	100.0

*(Field survey 2016)*

The results from Table 4.1 showed that there are more female teachers in the study area than male teachers.

The experience of the teachers who took part in the study was measured in terms of number of years of active service. Their experiences in teaching range from 0 – 5 years to above 15 years. The result is presented in the Table 4.2 below.

**Table 4.2: Experience in teaching of respondents**

Number of years of teaching	Frequency	Percentage
0-5	15	68.2
6-10	3	13.6
11-15	1	4.5
Above 15	3	13.6
Total	22	100

*(Source: Field survey 2016)*

The results presented in Table 4.2 revealed that majority of respondents, 15 (68.2%) in the study area are teachers who have just finished their training programmes and joined the teaching profession. This implies that these teachers are likely to remember and apply what they have been taught in their various training institutions to their work. This may positively affect their perception of classroom assessment and assessment practices.

In Ghana and elsewhere, academic qualification is very crucial for joining any institution including the Ghana Education Service (GES). The GES also requires that teachers are professionally trained to effectively control the tasks of teaching and learning in the classrooms on a daily basis. This qualification affects teachers' salaries and is highly expected to positively affect teachers' performance in class. Therefore the academic qualification of the teachers in the study area is assessed and the results presented in Table 4.3.

**Table 4.3: Academic and professional qualification of respondents**

Qualification	Frequency	Percentage
Certificate "A" in Education	1	4.5
Diploma in Education	15	68.2
Post dip/degree in Education	4	18.2
SSSCE/WASSCE	2	9.1
Total	22	100

*(Source: Field survey 2016)*

From Table 4.3 above, majority of teachers, 20 (90.9%) in the study area are professionally trained. This means that the teachers in the study area may have good perceptions of assessment and employ appropriate assessment techniques to effectively assess their pupils. However, 2 teachers representing 9.1% in the study area had only SSSCE/WASSCE certificate without any professional qualification. This is likely to negatively affect their perceptions of classroom assessment and may not employ appropriate methods to assess pupils

#### **4.1.2 Research Question 1: How do primary teachers perceive classroom assessment in science?**

Results on how primary teachers perceive classroom assessment is represented in the form of frequencies and percentages. The results showed the frequency distribution of teachers' responses to their perceptions of classroom assessment.



The result is presented in Table 4.4 below.

**Table 4.4: Frequency distribution of primary teachers' perceptions of assessment**

Statement	Strongly agree f( % )	Agree f(%)	Neutral f( % )	Disagree f(%)	Strongly disagree f( % )	Total f( % )
1. Assessment is useful to me	15(68.2)	0(0)	0(0)	7(31.8)	0(0)	22(100)
2. Teachers assess pupils after each lesson	0(0)	5(22.7)	2(9.1)	11(50.0)	4(18.2)	22(100)
3. Classroom assessment refers to any test a teacher gives at the end of a topic or lesson	14(63.5)	4(18.2)	1(4.5)	2(9.1)	1(4.5)	22(100)
4. Assessment helps teachers to provide feedback to their pupils	15(68.2)	5(22.7)	1(4.5)	1(4.5)	0(0)	22(100)
5. Teacher preparation does not provide variety of ways to assess pupils	7(31.8)	12(54.5)	0(0)	2(9.1)	1(4.5)	22(100)
6. Assessment adds extra workload to my work	8(36.4)	7(31.8)	0(0)	3(13.6)	4(18.2)	22(100)
7. Assessment during lesson does not allow me to finish my lessons on time	6(27.3)	8(36.4)	0(0)	7(31.8)	1(4.5)	22(100)
8. Assessment discourages some pupils in the class	10(45.5)	5(22.7)	0(0)	1(4.5)	6(27.3)	22(100)
9. Assessment is time consuming	8(36.4)	7(31.8)	0(0)	4(18.2)	3(13.6)	22(100)
10. Assessment is not a true reflection of pupils' performance	2(9.1)	3(13.6)	0(0)	8(36.4)	9(40.9)	22(100)

(Source: Field survey 2016).f-frequency, ( % ) -percentage

Results presented in Table 4.4 showed that the first item sought to find out whether teachers in the study area find classroom assessment useful. Analysis of responses from the respondents showed that out of the 22 respondents, 15 respondents representing 68.2% strongly agreed to the statement whilst the remaining seven teachers representing 31.8% disagreed with the statement. This result from the respondents indicated that majority of teachers consider classroom assessment as useful tool.

With regard to item two, which was to find out whether teachers assess pupils after each lesson, 5 respondents representing 22.7% agreed to the statement. However, 11 respondents representing 50.0% disagreed while 4 respondents representing 18.2% strongly disagreed with the statement that teachers assess pupils after each lesson. This implies that most teachers, 15 (68.2%) in the study area do not assess pupils after each lesson.

Item three which sought to find out whether teachers consider classroom assessment as any test a teacher gives at the end of a topic or lesson, revealed that 14 respondents, representing 63.5% strongly agreed; 4 respondents representing 18.2% agreed; but 1 respondent representing 4.5% had no idea. However, 2 respondents representing 9.1% and 1 respondent representing 4.5% disagreed and strongly disagreed with the statement respectively. The results showed that majority of the teachers, 18 (81.7%) in the study area considered classroom assessment as any test a teacher gives at the end of a topic or lesson.

Also, the fourth item sought to find out whether the teachers in the study area saw classroom assessment as a tool that aided them to provide feedback to their pupils. The

results from the study as shown in Table 4.4 revealed that 15 respondents representing 68.2% strongly agreed and 5 respondents representing 22.7% agreed with the statement. However 1 respondent representing 4.5% and the remaining 1 respondent representing 4.5% had no idea and disagreed respectively with the statement. This implies that most of the teachers, 20 (90.9%) in the study area considered classroom assessment a tool that helps them to provide feedback to their pupils.

Item five also sought to find out from the respondents whether teacher preparation did not provide variety of ways to assess pupils. Responses from the respondents showed that out of 22 respondents, 7 respondents representing 31.8% strongly agreed and 12 respondents representing 54.5% agreed with the statement that teacher preparation did not provide variety of ways to assess pupils. On the other hand, 2 respondents representing 9.1% disagreed and 1 respondent representing 4.5% strongly disagreed with the statement. This implies that most of the teachers, 19 (86.3%) in the study area believe that teacher preparation does not provide variety of ways to assess pupils.

Item six also sought to find out whether classroom assessment added extra workload to the teachers' work. The responses given by the respondents showed that 8 respondents representing 36.4% strongly agreed and 7 respondents representing 31.8% agreed with the statement that classroom assessment added extra workload to their work. However, 3 respondents representing 13.6% disagreed whilst the remaining 4 respondents representing 18.2% strongly disagreed with the statement that classroom assessment adds extra workload to their work. The result showed that majority of teachers, 15 (68.2%) in the study area perceives classroom assessment as an added workload to their profession.

However a substantial number of teachers, 7 representing 31.8% perceive classroom assessment as part of their profession and not an additional requirement to their work.

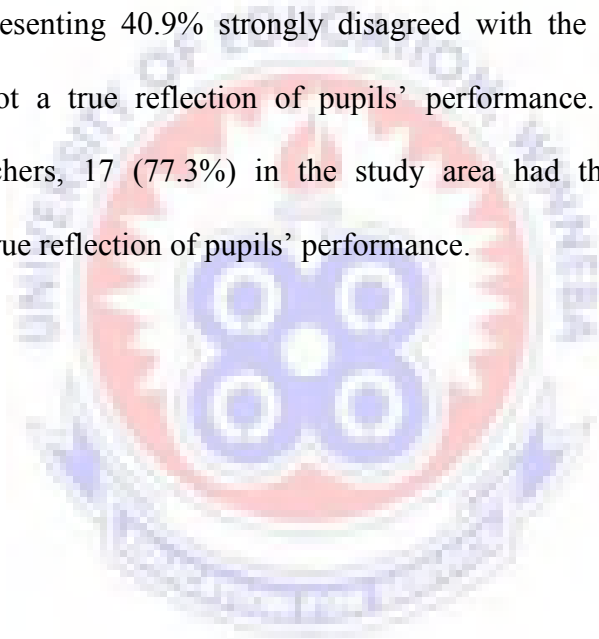
Furthermore, item seven sought teachers' responses to the statement that classroom assessment during lesson did not allow them to finish their lessons on time. The responses provided by the respondents showed that 6 respondents representing 27.3% strongly agreed and 8 respondents representing 36.4% agreed with the statement that classroom assessment during lesson did not allow them to finish their lessons on time. However, 7 respondents representing 31.8% disagreed and the remaining respondents, 1 representing 4.5% strongly disagreed with the statement. The result implied that majority of the teachers, 14 (63.7%) believed that classroom assessment did not allow them to finish their lessons on time.

The eighth item was to find out whether classroom assessment discouraged some pupils in class. Responses showed that 10 respondents representing 45.5% strongly agreed while 5 respondents representing 22.7% agreed to the statement. However, 1 respondent representing 4.5% disagreed and 6 respondents representing 27.3% strongly disagreed with the statement that classroom assessment discouraged some pupils in class. This result implies that majority of teachers, 15 (68.2%) in the study area perceive classroom assessment as a tool that discourages some pupils in class.

Item nine sought to find out whether teachers perceive classroom assessment as a time consuming exercise. Responses from the respondents showed that 8 of the respondents representing 36.4% strongly agreed and 7 respondents representing 31.8% agreed that classroom assessment is time consuming. However, 4 respondents representing 18.2%

disagreed and 3 respondents representing 13.6% strongly disagreed that classroom assessment is time consuming. This means that most of the teachers, 15 (68.2%) in the study area considered classroom assessment as a time consuming exercise.

Finally, the tenth item sought to find out whether teachers considered assessment as not being a true reflection of pupils' performance. Responses showed that 2 respondents representing 9.1% strongly agreed and 3 respondents representing 13.6% agreed to the statement. On the other hand, 8 respondents representing 36.4% disagreed and 9 respondents representing 40.9% strongly disagreed with the statement that classroom assessment is not a true reflection of pupils' performance. The result showed that majority of teachers, 17 (77.3%) in the study area had the notion that classroom assessment is a true reflection of pupils' performance.



**4.1.3 Research Question 2: What kind of assessment methods and tools do primary teachers use to assess their pupils in science?**

**Table 4.5: Current assessment practices used by teachers**

Statement	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
11. The design of my assessment incorporates task	2(9.1)	9(40.9)	1(4.5)	6(27.3)	4(18.2)	22(100)
12. My assessment always incorporates tests	5(22.7)	9(40.9)	1(4.5)	4(18.2)	3(13.6)	22(100)
13. My assessment often incorporates group work	4(18.2)	12(54.5)	0(0)	5(22.7)	1(4.5)	22(100)
14. My assessment often incorporates drills	3(13.6)	4(18.2)	3(13.6)	7(31.8)	5(22.7)	22(100)
15. My assessment always incorporates individual assignments	10(45.5)	7(31.8)	0(0)	4(18.2)	1(4.5)	22(100)
16. My assessment often incorporates practical activities	1(4.5)	2(9.1)	0(0)	9(40.9)	10(45.5)	22(100)

**(Source: Field survey 2016).**f-frequency, (%) percentage

Table 4.5 shows the frequency distribution of assessment methods and tools used by primary teachers to assess pupils in science.

From Table 4.5, item 11 sought to find out whether teachers incorporated task in their assessment practices. Responses showed that 2 respondents representing 9.1% strongly agreed and 9 respondents representing 40.9% agreed that the design of their assessment incorporated task whilst 6 respondents representing 27.3% disagreed and four

respondents representing 18.2% strongly disagreed with the statement. However, one respondents representing 4.5% is neutral to the statement. This showed that half of the teachers, 11 (50.0%) in the study area agreed that they incorporated tasks in their assessment practices.

Item 12 also sought to find out whether teachers always incorporate tests in their assessments. 5 respondents representing 22.7% strongly agreed and 9 respondents representing 40.9% agreed with the statement that their assessment always incorporated tests. On other hand, 4 respondents representing 18.2% disagreed and 3 respondents representing 13.6% strongly disagreed with the statement with 1 respondent being neutral to the statement. The result showed that the majority of teachers, 14 (63.6%) in the study area always incorporated tests in their assessment.

The thirteenth item tried to find out whether teachers often use group work to assess their pupils. Responses revealed that 4 respondents representing 18.2% strongly agreed and 12 respondents representing 54.5% agreed that they often use group works to assess their pupils. However, 5 respondents representing 22.7% disagreed and 1 respondent representing 4.5% strongly disagreed that their assessments often incorporated group work. This implies that most of the teachers in the study area, 16 (72.7%) often incorporated group work in their assessment strategies.

Item 14 sought to find out whether teachers' assessment of their pupils often incorporated drills. Results showed that 3 respondents representing 13.6% strongly agreed and 4 respondents representing 18.2% agreed that their assessment often incorporated drills. On the other hand, 7 respondents representing 31.8% disagreed and 5 respondents

representing 22.7% strongly disagreed that their assessment often incorporated drills. However 3 respondents representing 13.6% are neutral to the statement. The result implies that majority of teachers (54.5%) in the study do not use drilling as a tool in assessing their pupils.

Item 15 intended to find out whether teachers always incorporated individual assignments in their assessment strategies. Results revealed that 10 respondents representing 45.5% strongly agreed and 7 respondents representing 31.8% agreed that their assessments always incorporated individual assignments. Nevertheless, 4 respondents representing 18.2% disagreed and 1 respondent representing 4.5% strongly disagreed to the statement. This means that majority of teachers, 17 (77.3) in the study area agreed that their assessment always incorporated individual assignments.

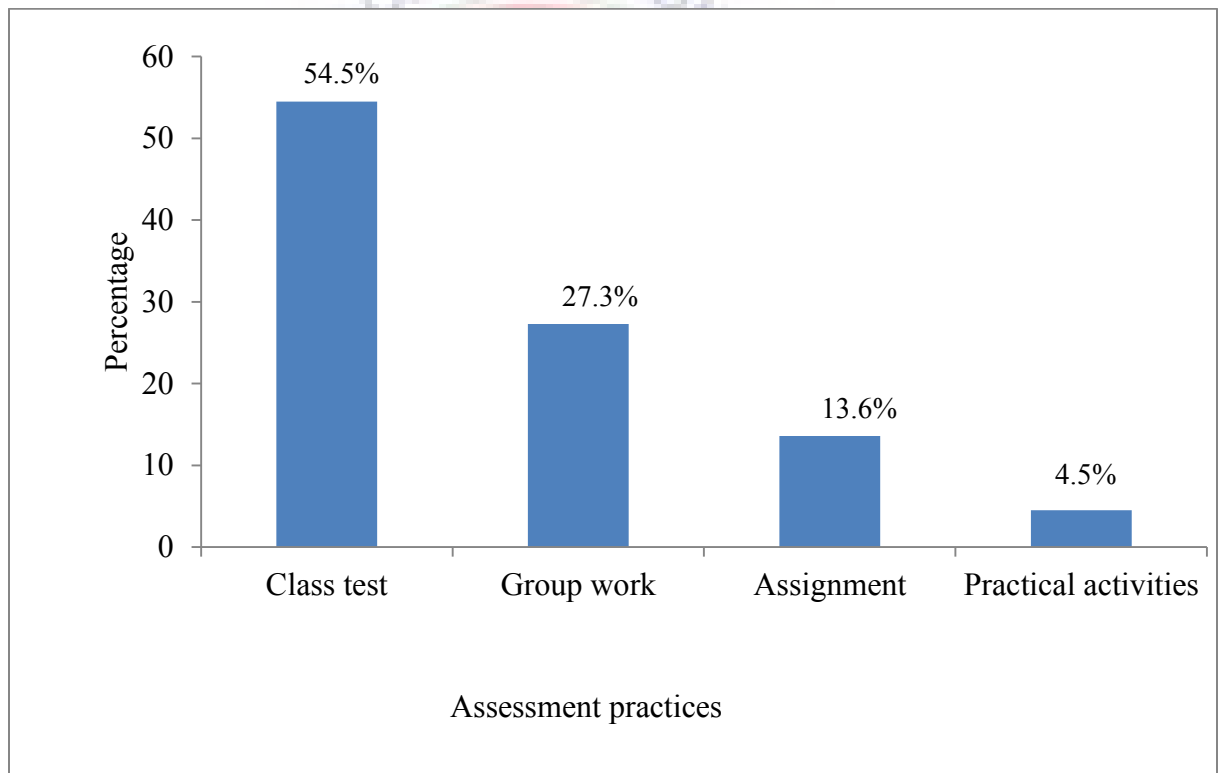
Finally, item 16 sought to find out whether teachers often incorporated practical activities in their assessment practices, 1 respondent representing 4.5% strongly agreed and 2 respondents representing 9.1% agreed to the statement that their classroom assessment often incorporated practical activities. However, 9 respondents representing 40.9% disagreed and 10 respondents representing 45.5% strongly disagreed with the statement. This implies that an overwhelming majority of teachers, 19 (86.4%) in the study area do not use practical activities to assess pupils.



#### 4.1.4 Research Question 3: What is the influence of teachers' perceptions of classroom assessment on their classroom assessment practices?

The result for research question 3 is presented below. The results give a summary of the influence of teachers' perceptions on their classroom practices as shown in Figures 4.1, 4.2 and 4.3 and Table 4.6.

From Figure 4.1 below, (54.5%) of the respondents mostly use class tests which mostly involve short- answers to assess their pupils.

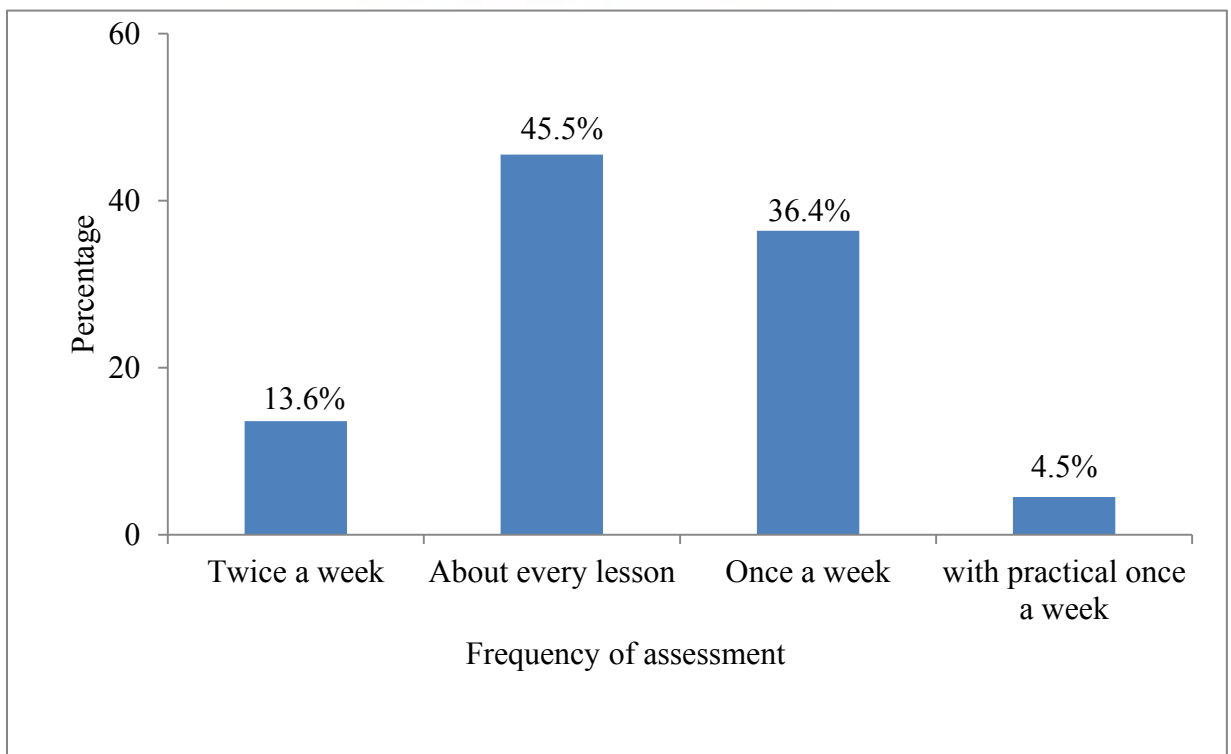


**Figure 4.1: Assessment practices mostly used by teachers**

*(Source: Field survey 2016)*

Results from Figure 4.1 also showed that 27.3%, 13.6% and 4.5% of the respondents mostly assess pupils using group works, individual assignments and practical works respectively.

Furthermore, the teachers were asked to indicate how often they assess their pupils. The responses given are presented in Figure 4.2. Results showed that 45.5% of the respondents assess pupils about every lesson.



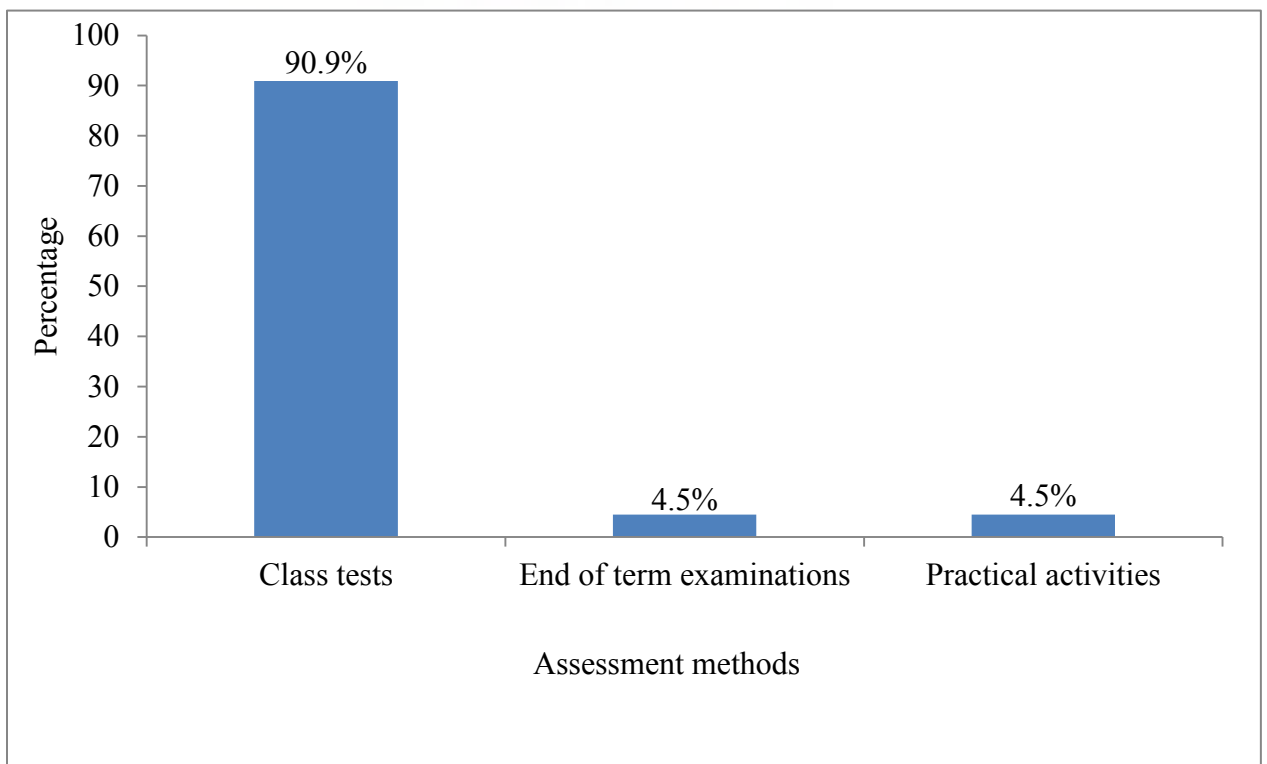
**Figure 4.2: How often teachers assess their pupils**

*(Source: Field survey 2016)*

Further results as shown in Figure 4.2 above also revealed that 13.6% and 36.4% of the respondents assess their pupils twice a week and once a week respectively. However the

remaining 4.5% of the respondents assesses pupils once a week when it involves practical works.

Finally, the teachers were asked to indicate the assessment method they considered most important in assessing pupils. The responses as presented in Figure 4.3 revealed that 90.9% of the respondents classified class tests as the most important method used to assess pupils.



**Figure 4.3: Assessment methods considered most important by teachers**

*(Source: Field survey 2016)*

It could also be deduced from Figure 4.3 above that 4.5% of the respondent considered end of term examinations as the most important method of assessing pupils whilst the

remaining 4.5% of the respondent considered practical activities as the most important method of assessing pupils.

To further ascertain the respondents' claim about their assessment practices, the exercises books of the pupils were analyzed (document analysis). The results from the document analysis were presented in Table 4.6. The results presented in Table 4.6 revealed that, 86.4% of the test items given by the respondents required pupils to name, mention, state, list or define. On the other hand, 6.8% of the test items involve explanations and description. However, 4.5% and 2.3% of the test items require matching and drawing respectively. The result implies that the most common test items used to assess pupils is primarily intended to measure the knowledge base of the pupils.

**Table 4.6: Test items and assessment practices used by teachers**

<i>Test items</i>	Percentage
Name/mention/state/list/define	86.4
Explain/describe	6.8
Match	4.5
Draw	2.3
<b>Total</b>	<b>100.0</b>
<i>Assessment practices</i>	
Class tests	73.0
Group works	2.0
Practical works	1.0
Individual assignments	24.0
<b>Total</b>	<b>100.0</b>

**(Source: Field survey 2016)**

Also results from Table 4.6 above revealed that 73.0% and 24.0% of the assessment practices used by teachers involve class tests and individual assignments respectively. However, group works and practical works respectively accounted for 2.0% and 1.0% of the total assessment practices used by the teachers.

## 4.2 Discussions of Results

### 4.2.1 How do primary teachers perceive classroom assessment in science?

Results from that study revealed that majority of the teachers, 15 (68.2%) considered classroom assessment as a very useful tool in enhancing effective teaching and learning. This implies that their day-to-day work may not be completed without assessing their pupils. This is in line with Guskey (2000), found in a study that effective teaching and learning cannot take place in the absence of assessment. However, this result in the current study is contrary to the findings of Stiggins (1999), which revealed that majority of teachers believed that classroom assessments were less useful in the teaching and learning process. This sharp contrast may be due to the high academic and professional qualifications of the teachers in the study area and the fact that most of these teachers are newly trained. However, quite a proportion of the teachers (31.8%) still did not consider classroom assessment as a useful tool. These teachers are likely to adopt ineffective assessment strategies in assessing their pupils. Albeit, majority of teachers in the study area agreed that classroom assessment is useful, these teachers could not assess pupils after each lesson. Responses from the teachers showed that only 5 (22.7%) of the teachers agreed that they assessed pupils after each lesson whilst the majority, 15 (68.2%) disagreed, with the rest being neutral. This is in support of a study conducted by Susuwele-Banda (2005), which revealed that teachers did not assess students after each lesson. He further stated that it is not possible to assess students on a daily basis as they learn science.

Further results from the current study revealed that teachers in the study area believe that classroom assessment is a tool that helps them to provide feedback to pupils. This finding is also consistent with the findings of Susuwele-Banda (2005), which found that all participants in a study on teachers' perceptions of classroom assessment and assessment practices in Malawi agreed that assessment helps teachers to provide feedback to their students. The finding of the current study is also in line with that of Stiggins and Chappius (2005), which concluded that classroom assessment provides feedback to modify the teaching and learning process. It is also consistent with recent findings by Ndalichako (2015), which showed that 92.3% of teachers surveyed, agreed that assessment aids them to provide useful feedback in enhancing students' performance.

However, majority of the teachers, 18 (81.7%) in the current study still regard classroom assessments as any test a teacher gives at the end of a topic or lesson whereas 13.6% of them think otherwise. This means that teachers in the present study have a superficial understanding of classroom assessment and believe that classroom assessment is merely for accumulation of marks and helps promote pupils from one class to another. This is in support of the findings of Sokopo (2004), which revealed that teachers essentially believed that classroom assessment was merely for the accumulation of marks, and reduced curricular outcomes to a checklist. The result of the current study is also consistent with the findings by Falchikov (2004), which argued that teachers mostly assess in order to rank students and not to identify individual capabilities and weaknesses.

Again, findings from the current study showed that teacher preparations did not provide variety of ways to assess pupils. This means that despite the academic and professional

qualifications of the teachers in the study area, they (teachers) might not have adequate professional techniques to assess pupils. The implication of this is that the assessment techniques of the teachers in the current study are likely to have a negative impact on their pupils. Teacher education programs play an important role in ensuring that prospective teachers have a coherent view of classroom assessment, and a full understanding of different assessment practices (Greenstein, 2010). Shulman (2004), contends that most teacher education programmes skim over classroom assessment, leaving teachers to assess in the way they were assessed when they were in school.

Furthermore, results from the present study showed that majority of teachers in the study area believe that classroom assessments is a time consuming exercise which does not allow them to finish their lessons on time hence an additional workload to their work. In addition, they believed that classroom assessments discouraged some pupils in class and is not a true reflection of pupils' performance. These numbers of teachers responding positively to the statements may not use effective assessment techniques to assess pupils which will lead to improve academic performance as stated in the framework. This finding is in support of the findings by McMillan, Myran, and Workman (2002), which established that most teachers view classroom assessment as an added requirement to their teaching job and not as a tool to improve their teaching skills. The result is also consistent with Black et al., (2004), Morrow (2007) and Farnsworth and Boon (2010). However, the result of the current study is contrary to the findings of Ndalichako (2015), which found in a study on secondary school teachers' perceptions of assessment in Tanzania that majority of teachers disagreed to the statement that assessment makes it

difficult for teachers to cover the syllabus. This contrast may be due to the fact that most teachers in the researcher's study area are more experienced in teaching (6-10years) compared to the teachers in the Anyako/Afiadenyigba circuit where most of them had teaching experience of 0-5years.

#### **4.2.2 What kind of assessment methods and tools do primary teachers use to assess their pupils in science?**

Results on research question 2 revealed that half (11) of the teachers in the study area agreed that they incorporate tasks in their assessment strategies in assessing their pupils whereas the remaining half did not. Tasks are kinds of assessments in which the pupils are assessed on two or more topics unlike class test that mostly cover a topic or section of a topic. These large numbers of teachers who disagreed with the statement implies that they rely solely on end of term examinations as the only means of assessing pupils on more than one topic. This result is in support of the findings by Van de Walle (2001), which revealed that assessment mainly refers to tests, examinations and drills in most schools.

Further results showed that majority of teachers always use class tests in assessing pupils. This is also consistent with Beckmann, Senk and Thompson's (1997) findings of which revealed that the most frequently used assessment tools by teachers are tests and quizzes and these determined about 77% of students' grades. However, these tests as the results revealed from the document analysis in the current study are short answer test which measure low cognitive achievements of the pupils. This kind of assessment does not promote meaningful learning hence hinders understanding of scientific concepts.



In addition to that, responses revealed that majority of the teachers often assess pupils through group works. This implies that teachers in the study area believe in cooperative learning, which they (teachers) say enables pupils to tap knowledge from one another and can employ it for the academic benefit of their pupils. However, analysis of pupils' exercise books showed that group works accounted for only 2.0% of the total assessment practices used by the teachers. This finding is inconsistent with the findings by Susuwele-Banda (2005), which established that most teachers employ group works in their assessment strategies in order to improve students' understanding of scientific concepts. This inconsistency may be due to the desire of the teachers in the Anyako/Afiadenyigba circuit to finish the syllabi hence they saw group work as an impediment.

Again, results from the current study showed that majority of teachers did not use drills in assessing pupils. This is in contrary to the findings of Dhindsa et al., (2007), which found that teachers mostly use drills as a tool for assessing students in order to put students on their toes. This contrast may also be attributed to the fact that teachers in the present study are more concerned about completing the syllabi. However, most teachers in the study area employ individual assignments in assessing pupils. This means that teachers in the study area engage their pupils with academic works even when the pupils are in their individual homes. This result is consistent with the findings by Kifer (2001), which concluded that one of the commonly used assessments methods by teachers is writing individual assignments. The result is also in line with what the stakeholders in education have being campaigning for. However, 22.7% of teachers in the present study area do not perform this function.

Finally, results from the study revealed that most teachers did not use practical activities in assessing pupils. From the result, only 13.6% of the teachers say they often use practical works in assessing pupils. However, results from the document analysis revealed that practical activities accounted for only 1.0% of the total assessment practices used by teachers in the study area to assess pupils. This means that hands-on activities that are necessary in enhancing effective teaching and learning of science are not adequately employed by the teachers in the study area. This finding is in contrast to the reports of Bertamini, Spooner, and Hecht (2004), which concluded that teachers must adopt practical activities to assess their pupils. This inconsistency may be due to lack of scientific materials or inability of the teachers in the study area to use improvised materials to perform practical activities for their pupils or lack of knowledge on the part of the teachers on how to carry out effective practical lessons. This is likely to make scientific concepts more abstract to pupils and promote rote learning leading to memorization of concepts.

The teachers were further asked to give reasons for the type of assessment methods that they used. Some of the reasons given by the teachers for using class tests most of the time included statements like “class tests are easy to mark, prepares pupils for BECE, provide instant feedback enable teachers to check whether the objectives of the lesson have been achieved or not and motivates pupils to know the seriousness attached to the lesson”. This implies that the teachers in the study area are teaching to the test instead of teaching to know the understanding of their pupils’ knowledge and skills in order to guide instruction. This is what Schwartz and Webb (2002), called assessment of learning

instead of assessment for learning. For group work, teachers explain that it enables individual pupils to tap knowledge from each other and ensures that weaker pupils learn from their colleagues who are good in class. Furthermore, the reasons cited for using individual assignment included statements like “assignments enable pupils to do research in the house to get to know more, enable pupils to have ample time to do whatever was given to them and to do it perfectly and also help teachers to know if the pupils are able to keep in mind what has been taught in class”. However, the teachers argued that end of term examinations enable pupils to account for what they have learnt. In addition, a teacher argued that practical works enable pupils to practice and manipulate materials as they learn science to enhance understanding of scientific concepts.

### **2.2.3 What is the influence of teachers’ perceptions of classroom assessment on their classroom assessment practices?**

Results on research question 3 revealed that the most common assessment practices used by teachers to assess pupils are class tests. Responses showed that majority of teachers (54.5%) use class tests that require short and straight forward answers from the pupils. This may be because majority of teachers in the study area perceive assessments as a time consuming exercise which does not allow them to finish their lesson on time. In addition, 15 (68.2%) of the teachers in the study area perceive assessment as a tool that adds extra workload to their work. This is consistent with the findings by Arulappen (2013), which concluded that teachers’ perceptions of classroom assessment have an influence on their classroom assessment practices.

Albeit, 77.3% of the teachers' believe that classroom assessment is a true reflection of pupils' performance, they could not assess pupils frequently. The results from the study showed that majority of teachers (54.5%) in the study area did not assess pupils about every lesson. This may be due to the fact that majority (68.2%) of the respondents believe that classroom assessment discourages some pupils in class. It may also be due to the teachers' believe that classroom assessments is a time consuming exercise and frequent use of assessments may hinder them from completing the syllabi. It may also be that the teachers are just trying to reduce that extra workload that they say comes with classroom assessment. These believes serve as a disincentive to the teaching and learning process hence the teachers are unable to assess pupils as frequently as possible. The finding is consistent with a study conducted by Fennema and Romberg (1999), which asserted that the way teachers perceive assessment may influence the way they teach and assess their students.

From the results, 27.3% of the respondents said they mostly use group works to assess pupils. However, analysis of pupils' exercise books showed that group works accounted for only 2.0% of the total assessment practices used by the respondents to assess their pupils. This may imply that the teachers could use group work as one of the efficient assessment practices to effectively assess pupils but their perceptions may be a constraining factor. This is in line with Cavangah et al., (2005), which concluded that assessment forms and tasks selected by teachers and administrators depend on their perceptions of assessment.

Again, the teachers were asked to indicate which of the assessment practices they considered most important. Results from the study showed that overwhelming majority, 20 (90.9%) of the teachers considered class test as the most important tool for assessing pupils. The reason given by the teachers that class tests are easy to mark might have influence their choice of class tests as the most important assessment practice.



## CHAPTER 5

### SUMMARY OF FINDINGS, CONCLUSIONS AND

### RECOMMENDATIONS

#### 5.0 Overview

This chapter presents the summary of findings, conclusions and recommendations. The study explored primary teachers' perceptions of classroom assessment and their current assessment practices in the Anyako/Afiadenyigba circuit of KeMA in Ghana.

#### 5.1 Summary of findings

The study involved 22 teachers teaching in four primary schools out of the nine primary schools in the Anyako/Afiadenyigba circuit of KeMA. A closed ended questionnaire in the form of the five point Likert scale ranging from Strongly Agree to Strongly Disagree was the major data-collecting instrument though some open-ended questions were used. The purposive sampling technique was used to select the schools whilst a simple random sampling technique was adopted in the selections of teachers to ensure that all teachers in the selected schools have equal chance of being selected. Data analysis was done by the use of descriptive statistical methods, the generation of percentages on frequency count using simple tables, and charts.

Out of the total number of respondents, 40.9% were males and 59.1% were females. The academic qualifications of the teachers who took part in the study ranged from SSSCE/WASSCE to post diploma/degree. Analysis of results showed that 68.2% of the

teachers had diploma in Education, 18.2% had post diploma/degree in Education and 4.5% had certificate 'A' in Education. This implies that majority of the teachers (90.9%) in the study area are professionally trained. However, 9.1% of the teachers had only SSSCE/WASSCE qualification without any professional background. Teaching experience of teachers was measured in number of years, which ranged from 0 to above 15 years. Results revealed that 68.2% of the teachers had a teaching experience of 0-5 years while 13.6% had a teaching experience of 6-10 years. In addition, 4.5% and 13.6% had a teaching experience of 11-15 years and above 15 years respectively.

Results of the study showed that majority of teachers agreed to the statements:

- Assessment is useful to me.
- Classroom assessment refers to all tests a teacher gives at the end of a topic or lesson.
- Assessment helps teachers to provide feedback to their pupils,
- Assessment adds extra workload to my work.
- Assessment during lesson does not allow me to finish my lessons on time.
- Assessment discourages some pupils in the class, assessment is time consuming.

In addition, most of teachers agreed that teacher preparation programmes did not provide variety of ways to assess pupils. However, they disagreed to the statements that “*teachers assess pupils after each lesson and assessment is not a true reflection of pupils’ performance*”.

Further results obtained from the study revealed that the most common assessment practices used by teachers in the study area were class tests and individual assignments. These assessment practices employed by the teachers to assess pupils were mostly short answer tests. This could be due to the perceptions of the teachers that classroom assessment discourages some pupils in class, is a time consuming exercise which hinders them from finishing lessons on time and an extra workload to their profession. Therefore these teachers mostly provided short answer tests to make marking easier and faster for recording, reporting and promoting purposes and also to please the officials of the education directorate of the KeMA.

## **5.2 Conclusions**

Results from the study indicate that teachers in the Anyako/Afiadenyigba circuit considered classroom assessments as useful tools which enabled them to provide feedback to pupils. About 81.7% of the teachers agreed that classroom assessment referred to any test a teacher gave at the end of a topic or lesson to obtain an idea of pupils' understanding of scientific concepts. However, they still considered assessment as time consuming which did not allow them to finish their lessons on time. This implies that even though the teachers considered the feedback functions of assessment as useful, they were unlikely to perform this function of assessment to the academic benefits of their pupils. These teachers therefore considered assessment as an intention to generate marks for report purposes in order to promote pupils from one class to another. This implies that these teachers treat assessment in isolation from teaching and learning. They are unlikely to use assessment feedbacks to design remedial measures for pupils because



for them using assessment for reporting and promoting purposes is more important than using it in facilitating teaching and learning.

Furthermore, the statements “*classroom assessment discourages some pupils in class*” and “*assessment adds extra workload to my work*” were agreed by 68.2% each of the teachers whilst 31.8% of the teachers disagreed with the statements. However, 77.3% of the teachers considered classroom assessment as a true reflection of pupils’ performance. This means that even though the teachers considered classroom assessments as true reflections of pupils’ performance, they are unlikely to use effective assessment techniques in assessing pupils. This is because they held the view that classroom assessment discourages some pupils in class and is also a tool that adds extra workload to their profession.

The assessment practices used by teachers to assess pupils in the study area included tasks, tests, group works, drilling, individual assignments and practical activities. However, drilling and practical activities were rarely used in assessing pupils.

The results of the study therefore revealed that the perceptions of classroom assessments held by teachers in the Anyako/Afiadenyigba circuit were unfavorable. These perceptions adversely influenced their assessment practices as revealed by the results of the study. From the study, responses showed that 54.5% of the teachers use short answers test items in the form of class tests to assess pupils and only 27.3% and 4.5% of the teachers assess using group works and practical activities respectively. Further analysis of pupils’ exercise books (document analysis) actually revealed that most of the test items (86.4%) required short answers and class tests actually accounted for 73.0% of the total

assessment practices employed by teachers. However, group works and practical works accounted for only 2.0% and 1.0% respectively of the total assessment practices.

### **5.3 Recommendations**

Based on the results of the study the following recommendations are made:

- The measure adopted by the education directorate of the KeMA to monitor teachers' assessment of pupils should focus on the quality of assessments rather than the quantity of it.
- The education directorate of the KeMA should organize regular and effective in-service training programmes for teachers on the importance of classroom assessment and to use the various assessment practices to effectively assess pupils.
- School heads in KeMA should organize various programmes to evaluate how teachers are assessing pupils and together with the teachers discuss the challenges teachers encounter on a daily basis during assessments. This may help to address some of these challenges and enable teachers to change their perceptions about classroom assessments.
- Teachers in KeMA and other parts of the country should take advantage of various educational programmes such as sandwich and distance programmes to upgrade their knowledge on classroom assessments and practices. This will enable them to develop favorable perceptions on classroom assessment and assessment practices.

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## APPENDICES

### Appendix A

	<b>UNIVERSITY OF EDUCATION, WINNEBA</b>
	<b>DEPARTMENT OF SCIENCE EDUCATION</b>
P. O. BOX 25, WINNEBA	TEL. NO. 0202041079
Website: <a href="http://www.uew.edu.gh">www.uew.edu.gh</a>	Email: <a href="mailto:science@uew.edu.gh">science@uew.edu.gh</a>

Our Ref: \_\_\_\_\_

Your Ref: \_\_\_\_\_

Date: July 11,, 2016

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

**LETTER OF INTRODUCTION**  
**KUMATOR, HOPE (STUDENT INDEX NO. 7140130037)**

We write to introduce the above student who is an M.Ed student of the Department of Science Education at the University of Education, Winneba. Please, he has requested for an introductory letter to enable him conduct a research on "*Classroom Assessment: Primary Teachers' perception and Practices at Anyako/Afiadenyigba Circuit of KeMA*" at your outfit.

We should be grateful if you could grant him the required assistance.

Thank you for your cooperation.

Yours faithfully,

  
**VICTOR ANTWI (Ph.D)**  
**AG. Head of Department**

**Appendix B**

**QUESTIONNAIRE FOR BASIC SCHOOL TEACHERS IN SELECTED  
PRIMARY SCHOOLS IN ANYAKO/AFIADENYIGBA CIRCUIT OF KeMA**

**This is a research on Primary Teachers' Perceptions of Classroom Assessment and Practices in Science. It is being conducted in partial fulfillment for the award of Master of Education degree in (M.Ed) Science at the Department of Science Education- University of Education, Winneba**

This questionnaire is intended to investigate teachers' perceptions of classroom assessment and practices. Your frank and objective responses to each item will be highly appreciated.

The researcher would like to assure you that the responses you give will be treated with utmost confidentiality and will be used for academic purposes only. Under no circumstances should you write your name or any contact information on this paper. Thank you for your time and patience

**Please fill in or tick the correct responses where appropriate**

**Name of school**.....

Number of pupils in your class.....

**Gender:** male [ ], female [ ]

**How long have you been teaching? Please tick the appropriate response**

(a) 0-5years [ ] (b) 6-10years [ ] (c) 10- 15years [ ] (d) above 15 years [ ]

**Academic qualification**

(a) Certificate. ‘A’ [ ] (b) Diploma [ ] (c) Post Dip/Degree [ ] (d) Masters’ degree [ ] (e) others [ ] (specify)

**Please tick or mark the extent to which you agree or disagree with the following sentences**

**NB:** SA- Strongly agree      A- Agree      N- No idea      SD- Strongly disagree  
DA- Disagree

**A. Responses to teachers’ perception of classroom assessment**

	<b>Items</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>SD</b>	<b>DA</b>
1	Classroom assessment refers to all tests a teacher gives at the end of a topic or term					
2	Teachers assess students after each lesson					
3	Assessment is useful to me					
4	Assessment helps teachers to provide feedback to their pupils					
5	Teacher preparation (sch. attended) provides a variety of ways to assess students					
6	Assessment adds extra workload to my work					
7	Assessment during lesson does not allow to finish my lessons on time					
8	Assessment discourages some pupils in the class					
9	Assessment is time consuming					
10	Assessment is not a true reflection of students’ performance					

**B. Responses to current assessment practices used by teachers**

	<b>Items</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>SD</b>	<b>DA</b>
11	The design of my assessment incorporates task					
12	My assessment often incorporates project work					
13	My assessment always incorporates tests					
14	My assessment often incorporates group work					
15	My assessment often incorporates drilling					
16	My assessment always incorporates individual assignments					

**Responses to the influence of teachers' perceptions of assessment on their assessment practices**

17a. Which of the following assessment practices do you mostly use to assess your pupils in science?

(a) class test [ ] (b) group work [ ] (c) assignment [ ] (d) practical activities [ ]

17b. Please state or explain why  
 .....  
 .....

18. How often do you assess your pupils in science?

(a) once a week [ ] (b) about every lesson [ ] (c) every two weeks [ ]  
 (d) twice a term [ ] (e) once a month [ ] (f) every lesson [ ]  
 (g) other [ ] (specify)  
 .....

19a. Which of the following tools of assessment do you consider most important?

(a) class exercises [ ] (b) end of term examinations [ ] (c) practical work [ ]

19b. Please state or explain why  
 .....  
 .....  
 .....

## Appendix C

### Document Analysis

<i>TEST ITEMS</i>	Percentage
Name/mention/state/list/define	
Explain/describe/write short notes	
Match	
Draw	
<b>Total</b>	
<i>ASSESSMENT PRACTICES</i>	
Class tests	
Group works	
Practical works	
Individual assignments	
<b>Total</b>	

