

**Assessment of the Medium of Instruction on Pupils' Academic Performance
in Literacy: A study of Selected Lower Primary Schools in Ghana**

By

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DECLARATION

I, Margaret Ama Ansre, hereby declare that the thesis for the Doctor of Philosophy degree at the University of Venda, hereby submitted by me, has not been previously submitted for a degree at this or any other university, and that it is my own work in design and execution and that all the reference material contained therein has been duly acknowledged.

Signature:

Date:

DEDICATION

This thesis is dedicated to the memories of my late father, Philip Komla Anyawoe, who laid the foundation of hard work and diligence in my life, and to my late husband, Jake Kofi Ansre who encouraged me in my continuous pursuits of academic achievement.

To my octogenarian mother, Mrs. Erica Yawa Anyawoe, I say 'Thank you' for all your sacrifices to make me who I am today.

This dedication also goes to my dear daughter and treasure, Etonam Alexandra Yawa Ansre. You are a blessing in my life.

To my sister, Mrs. Mary Ayebi, thank you for being always there for me.

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Finally, I dedicate this thesis to the Anyawoe family of Ho-Bankoe and Ansre family of Peki.

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ABSTRACT

This research assesses how the choice of a particular medium of instruction supports Primary Class Three (P.3) pupils' academic performance in literacy. The need for this research has been occasioned by the inconsistencies that exist in Ghana's language-in-education policy. The current language-in-education policy allows for only the dominant language of the community, in which a school is situated, to be used as medium of instruction, even when pupils speak different languages in one P.3 classroom. The research adopts a mixed methodology approach and uses purposive sampling technique to select a total sample of 317 participants. This number comprises pupils, teachers, parents and other stakeholders in education from 8 schools within 3 municipalities in the Greater Accra region of Ghana. Five (5) of the schools use English medium of instruction and three (3) schools use Ghanaian language or mother-tongue. Data collection tools for the research are interviews, participant's observations, video recordings and diagnostic tests. The main finding, based on the test results of the research, establishes that when mother-tongue and English are compared as mediums of instruction from Kindergarten One (KG1) up to P. 3, there is no significant difference pupils' academic results in literacy. In view of this, the research advocates for further debate on other factors that support pupils academic performance in literacy, in addition to mother-tongue and English medium of instruction in lower primary schools.

KEYWORDS: *medium of instruction, mother-tongue, Mother-tongue Education, language acquisition, language learning and literacy*

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CHAPTER ONE

BACKGROUND OF STUDY

1.1 Introduction

This chapter begins with background information which highlights the language situation in Ghana, and includes the rationale for the research. The chapter further discusses the theoretical framework, reviews the literature and the research methodology. The chapter closes with the structure of the ensuing chapters of the thesis.

1.2 Languages in Ghana

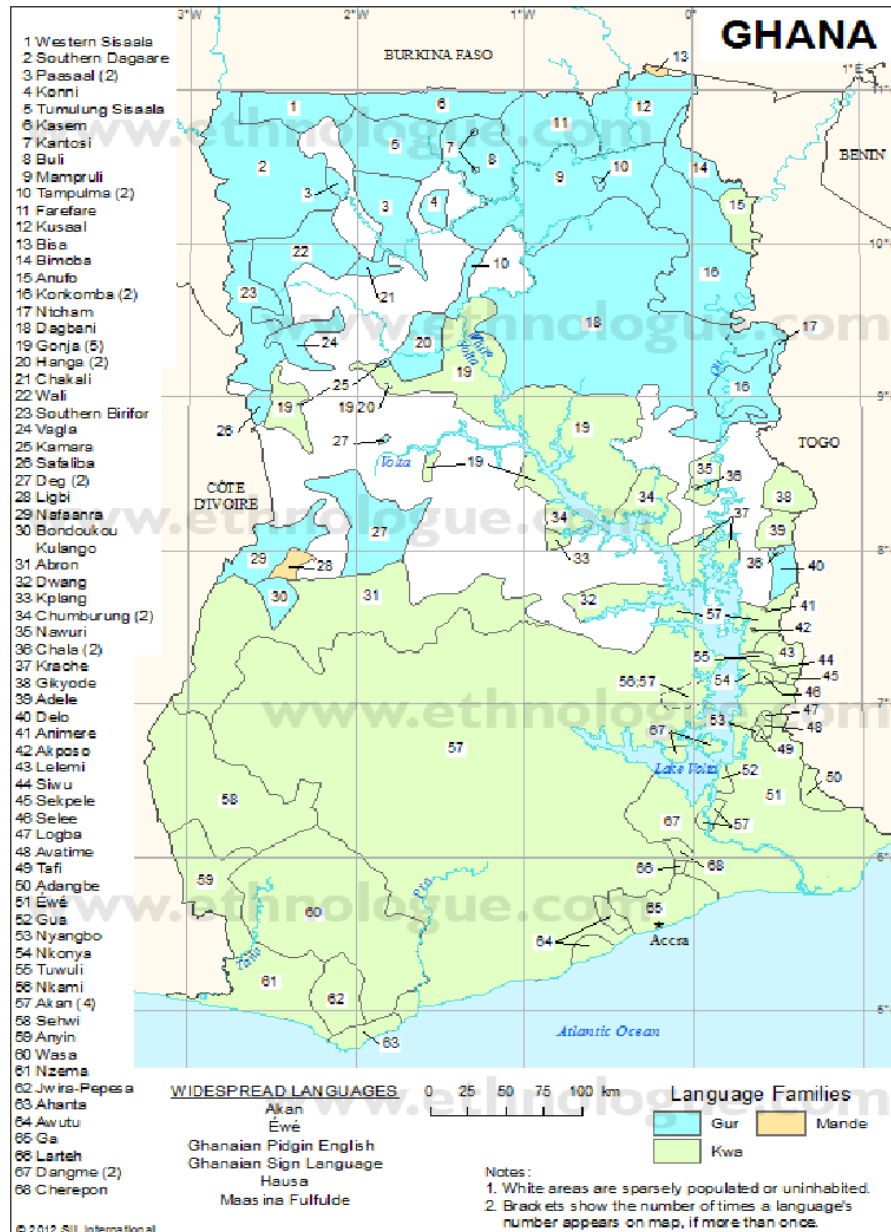
English is the official language in Ghana. It is a language inherited from the British who last colonised the country. Apart from English, there are between 65 – 80 other languages and dialects spoken across the 10 regions of Ghana (Bodomo & Anderson, 2009; Lewis *et al.*, 2016). Dialect, according to Trughill, (1992) is a variety of language, with all the structure, sound patterns, and meaning regularities of any other language variety. For the purposes of this research, dialects are language varieties which are mutually intelligible.

The map on page 2 highlights these languages and dialects spoken across the country.

Akan, with its variants – Asante Twi, Akuapem Twi and Fante, has the highest number of speakers, and is spoken in the Ashanti, Eastern, Brong Ahafo, Central, Western and Volta regions of Ghana. The second most widely spoken language, Ewe, is dominant in the Volta and Eastern regions. The languages spoken in the Greater Accra region are Ga and Ga Dangme. In the Northern region, Dagbane, and Gonja are the languages spoken in addition to Hausa, a regional language spoken across West Africa. The main languages spoken in the Upper East and the Upper West regions are Kasem and Gurunne. The Western region has speakers of Nzema and Ahanta languages. Based on the regional language distribution of the country, the Ministry of Education in Ghana has selected and approved 11 languages for use

as Medium of Instruction (Moi) in all lower primary schools across the country. These languages are: Asante Twi, Akuapem Twi, Fante, Ewe, Ga, Dangme, Gonja, Kasem, Nzema, Dagbane and Dagaree (Ministry of Education, 2007).

Figure 1: Language map of Ghana



Source: Lewis *et al.*, (2016)

The issue of what language of instruction to use in early childhood education and its effect on pupils' academic performance, especially in literacy, is unresolved. In other parts of the world such as India and Indonesia and in other African countries –

Kenya, South Africa and Cameroon – several attempts have been made and are still being made to find a lasting solution to this problem. Literacy, according to many research findings, is vital for any learning endeavour. Arkorful (2013) aptly asserts that:

“If formal education is to ensure that children build the necessary knowledge and skills needed to be productive, then surely, it must be delivered in a medium that children and teachers can use in building that knowledge. (p.38)”

Literacy in a child’s early life promotes cognitive development, and achievement of literacy and learning goals. There is enough documented evidence which proves that children perform better in school if they are taught in a language they are familiar with (Cummins, 2001). In support, Pinnock & Vijayakumar, (2009) state that:

“The language used to deliver the school curriculum pulls down the educational performance of many of those who do not use it at home, particularly those who do not have regular access to it outside school (p. 8)”.

Bamgbose (2011a) adds that if children are taught in a mother-tongue that they understand, then transition to a second language, in this case, English becomes successful. In another related study, Walter & Chuo, (2012) from their findings note that three years of mother-tongue instruction is not adequate enough for an on-going academic success in an English Mol context. Ghana’s language-in-education policy which has been fluctuating between an English medium and mother-tongue medium of instruction since 1925 has operated with the three years Early Exit Model.

The core objective in Ghana’s lower primary curriculum, as stated by the Ministry of Education, Ghana, is to equip pupils with literacy skills that will improve their learning abilities, and serve as a springboard for further academic pursuits (Ministry of Education, Ghana, 2007). The implication of this is that by P.3, pupils will be functionally literate in both English and a Ghanaian language, which is considered in this context as literacy. As part of the measures to achieve this objective, several changes and educational interventions have taken place during the post-

independence era in Ghana. Some of these notable changes and interventions include the Educational Acceleration Programme, 1951; The Dzobo Educational Review 1974; the Kwabong Educational Review Committee, 1986; The Break Through to Literacy, and Bridge to English (BTL/BTE) in 2004. In 2006, the National Literacy Acceleration Programme (NALAP), another educational intervention, was established by the Ministry of Education to promote mother-tongue medium of instruction programme for lower primary schools all over the country (Leherr, 2009).

Other specific studies in Ghana, on literacy instruction, placed much importance on its relevance at the lower primary school (Casely-Hayford & Ghartey, 2007; Hartwell, 2012). Even with these concerns and interventions, the Baseline Assessment Report on the implementation of the NALAP. Leherr (2009), confirmed that: “Ghana is currently facing a national literacy and numeracy crisis (p.2)”.

The Ministry of Education’s (2015) statistics on primary enrolment shows that there is a total number of 14, 405 primary schools across the country. On the average, a Ghanaian P.1 – P.3 classroom holds between 35 – 70 pupils. With the linguistic diversity of most communities in Ghana, an urban lower primary classroom on the average can have pupils who speak between 3 – 5 languages. As stated earlier, one classroom can have a language composition of between 5 – 13 different languages (Ansre, 2012). As explained earlier, some of these languages are mutually intelligible (ref. 1.2). The language-in-education policy permits the teacher to use only the dominant language of the community, but the diversity of languages found in the communities which may be present in the classrooms defeats the purpose of the policy. Similarly, the teaching and learning materials for a particular region are only in the dominant language of the area. The result is that more than a third of the pupils’ languages in Kindergarten One (KG1) – P.3 classrooms are excluded from the government approved languages to be used as mediums of instruction (Ansre, 2012).

Lessons for primary school curriculum cover a duration 45 minutes each for both English language as a subject, and Ghanaian language as a subject (Ministry of Education's (2007). Through the National Literacy Acceleration Programme (NALAP) initiative, the Ghanaian language and the English language periods in KG1 – P.3 have been merged into one literacy period of 90 minutes per lesson. During this Literacy period, the teacher in KG1 – P.3 is expected to teach in both a Ghanaian language and English. This 90-minute Literacy period is divided unequally between the Ghanaian language and English, with the English component increasing at each higher level, while the Ghanaian language component decreases until the literacy period is evenly distributed between the two languages at P.3 as indicated below.

Table 1: Distribution of Language and Literacy Periods

Class	Ghanaian language	English
KG1	80 mins.	10 mins.
KG2	70 mins	20 mins.
P1	60 mins.	30 mins.
P2	50 mins.	40 mins.
P3.	45 mins.	45 mins.

(Ministry of Education, Ghana, 2012)

According to this table, the new directives by the Ministry of Education in 2012 expects that by the time the pupils finish P.3 and are ready to move on to P4, they would have attained an equal level of literacy in both a Ghanaian language and English.

Against this background, this research seeks to find out if the objectives of the language-in-education policy – equal literacy rates in both the Ghanaian language and English by the end of P.3 – are met before pupils' transition into Primary Four (P.4).

1.2 Problem Statement

As stated earlier, Ghana's language-in-education policy has fluctuated over the years. The most current Government White Paper on the language-in-education policy at the lower primary school level, states amongst others the following:

1. The children's first or home language (L1) and Ghana's official language, English, (L2) should be used as the medium of instruction from KG1 – P.3.
2. Where teachers and learning materials are available, and the linguistic composition of classes is fairly uniform, the children's first or home language (L1) must be used as the dominant medium of instruction from KG1 – P.3 (Ministry of Education, 2007).

From the above explanations, the research seeks to investigate the following problems:

- i. There is a mismatch or a gap between the language-in-education policy statement and the actual practice in the classroom because the policy as it stands is very flexible in nature, allowing for different interpretations and applications. As a result, teachers' implementation of the policy in the classroom is not uniform. So, teachers choose any medium of instruction they find convenient.
 - ii. The policy, as it stands, has failed to specifically address the issue of language diversity in the KG1 – P.3. multilingual classrooms. As such, there is an experimental "one size fits all" approach in the choice of the medium of instruction in lower primary classrooms. Most P.3 pupils do not speak at all, or speak fluently, the dominant local language of the community. These pupils therefore have to learn the dominant language, as a second language in addition to English.
 - iii. The language-in-education policy has not clearly defined a "dominant language" since more than one dominant language is now spoken in most of the communities within the Greater Accra region of Ghana.
 - iv. Pupils' academic requirement in literacy in P.3 is not adequately supported.
- Based on these problems, the objectives stated below were developed for the research.

1.3 The Objectives of the Study

The main objective of this research is to assess how the choice of a particular medium of instruction supports pupils' academic performance in literacy in P.3 classrooms. From this, the following sub-objectives are developed.

- i. To affirm the extent to which the use of English as medium of instruction supports P.3 pupils' academic performance in literacy;
- ii. To verify whether or not the use of mother-tongue as medium of instruction supports P.3 pupils' academic performance in literacy;
- iii. To examine how teacher initiated code-switching supports P.3 pupils' academic performance in literacy.
- v. To ascertain the challenges that P.3 teachers face in the choice of a particular language as medium of instruction.
- vi. To compare P.3 pupils' academic performance in English and mother-tongue.

1.4 Research Questions

From the above stated objectives, the research attempts to answer the following research questions:

- i. To what extent does the use of English as medium of instruction support P.3 pupils' academic performance in literacy?
- ii. Does the use of mother-tongue as medium of instruction support P.3 pupils' academic performance in literacy?
- iii. Does teacher initiated code-switching support P.3 pupils' academic performance in literacy?
- iv. What challenges do P.3 teachers face in the choice of a particular language as a medium of instruction?
- v. Is there any significant difference in P.3 pupils' academic performance when English language and mother-tongue are used as mediums of instruction?

1.5 The Relevance of the Study

It is the vision of policy makers and the Ghana Education service to provide quality education for all pupils at the basic level. Thus, the findings of the research will:

- i. Collate information on the effect of the current language-in-education policy in terms of how the choice of language as the medium of instruction affects pupils' academic performance in literacy at the lower primary school level;
- ii. Outline the main issues and challenges affecting the smooth implementation of the language policy;
- iii. Inform teachers, parents, policy makers and other stakeholders in education to make changes that will reflect issues concerning performance levels of P.3 pupils in literacy, and support the pupils' preparedness to effectively transition into an English medium of instruction in P.4.

1.6 Assumptions

The study is based on the following assumptions:

i. ***The use of a familiar language as medium of instruction***

The first assumption is that when pupils are taught in a language they are very familiar with, from the KG1 – P.3, they are able to perform better both in the Ghanaian language, and in English. This would reflect in the development of their literacy skills. This assumption is based on the current language-in-education policy which proposes that, the “dominant language” of the locality should be used as medium of instruction from KG1 – P.3.

ii. ***Multilingual nature of P.3 classrooms.***

The second assumption is that most P.3 classrooms in Ghana, especially in urban and peri-urban localities, comprise a number of pupils who speak between two to five of the languages stipulated in the language-in-education policy. Andoh-Kumi (1992), in his studies confirmed that most of the pupils, in most localities in Ghana, are bilinguals and multilinguals who are exposed to, and actually speak two or more languages. Based on this, it is thus assumed that teachers in these classrooms would also speak all the languages that the pupils speak.

iii. ***Implementation of the language-in-education policy in diverse language P.3 classrooms.***

The third assumption is that when pupils are taught in English from their early school years, they learn better. This assumption is based on the fact that the implementation of the language-in-education policy will only be feasible where all the pupils and the class teacher speak and understand one common language. However, most teachers at this level are not polyglots, so they may not be able to speak all the languages of the pupils. It is therefore assumed that adopting a neutral language, such as an English medium of instruction in a lower primary multilingual classroom would optimise the teaching and learning process, and would make pupils learn better.

1.7 Definition of Terms

1.7.1 Mother-tongue

Skutnabb-Kangas, (2000) categorises four definitions of mother-tongue.

1. Mother-tongue is the language that one learns first (origin).
2. Mother-tongue is the language that one uses most of the time (function).
3. Mother-tongue is the language that one knows best (competence).
4. Mother-tongue is the language that one identifies with as a native speaker (the language of the learner's parents).

Similarly, Gupta, (1997) defines mother-tongue as the language that a learner learned at home during childhood; the language that the learner acquired by birth – same as origin. Phyak (2007) also defines mother-tongue as a language that the learner learned before any other language. With these stated definitions, a learner may have more than one mother-tongue. It is thus presumed that a pre-school learner's mother-tongue is a language the learner is most proficient in, and uses most of the time.

For the purpose of this research, mother-tongue is defined as the language that one identifies with as a native speaker – the language of the learner’s parents. It must also be explained that a child who acquires competence in more than one language, in a situation where both parents do not have the same mother-tongue will have more than one mother-tongue. This is a normal occurrence especially in diverse language communities.

1.7.2 Medium of instruction

The term ‘medium of instruction’ (Moi) is the language that a teacher uses in teaching a lesson. According to Tsui & Tollefson, (2007) the language that is chosen as a medium of instruction during the teaching and learning process becomes the most powerful tool in language maintenance and language revitalisation. This means that the medium of instruction, which becomes the language for all classroom interactions, enables teachers to convey knowledge to learners and at the same time allows learners to acquire knowledge which goes beyond the classroom (Webb, 2006).

1.7.3 Mother-tongue Education (MTE)

Mother-tongue Education (MTE), as explained by Ball, (2011), is the use of a first language (L1) as medium of instruction while English or a second language (L2) is used as a subject. Unesco, (1953) affirms its position on mother-tongue instruction in the following way: “pupils should begin their schooling through the medium of the mother-tongue, because they understand it best (pp 47-48)”. Thus, MTE gives the learner an opportunity to begin school life in a familiar language and bridges the gap between the home and school.

The research, however, does not make any clear distinction between mother-tongue and Mother-tongue Education (MTE). Each of these terms are used as appropriate.

1.7.4 Language Learning and Language Acquisition

The two key concepts relevant to second-language theories are acquisition and learning. In a critical analysis of *Second Language Theories, Approaches and Methods*, Richards and Rodgers, (2001) clearly state the difference between acquisition and learning. Acquisition refers to the unconscious development of the target-language system as a result of using the language for real communication. Learning is the conscious representation of grammatical knowledge that has resulted from instruction, and which may not necessarily lead to acquisition.

Similarly, Krashen, (1982) had earlier described acquisition as the ability to know a language subconsciously. The learner eventually would not know that he or she was acquiring language, but would automatically begin to communicate and use the language correctly and appropriately. Terrell (1977) also had defined language learning as a conscious process of studying, and intellectually understanding the grammar of the target language. He further clarified learning as occurring in a classroom situation but went on further to state that: “since no one has ever completely described the grammar of a language, much less taught it to anyone, all L2 ability also involves learning” (ibid p.18).

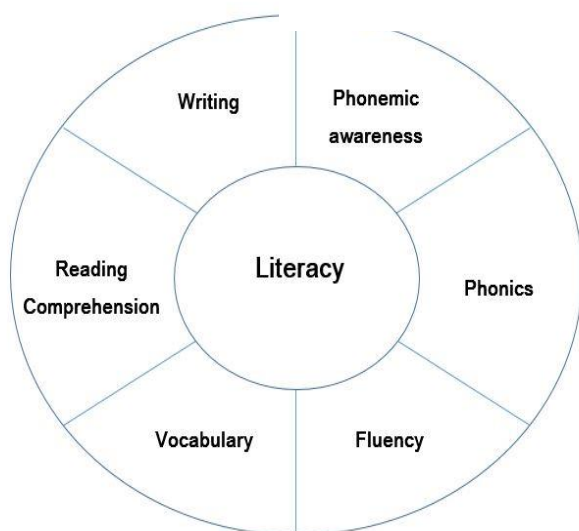
For the purpose of this research, learning is considered as a conscious effort made by learners to understand and use a second language – English – in a formal classroom situation.

1.7.5 Literacy

Literacy has varied definitions which seem to have evolved over the years. Gumperz and Cook-Gumperz, (1982) define literacy as the ability to create and understand printed messages. In its broadest sense, literacy was perceived as a school-based reading and writing process. With time, other writers like Freire (1993), redefined literacy to encompass the socio-cultural environment of the learner; thus, literacy is not only “the ability to read and write, but rather the individuals’ capacity to put those skills to work to shape the course of their lives” (p.13). In other words, when learners

are taught to read and write meaningfully and critically, it increases their ability to take charge of their own development. Literacy is also explained as a process which helps the learner to create knowledge; and provides the learner with the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts (Olson, 1977; Gadotti, 1994). This research considers the six components of literacy skills which every child must acquire in early years of schooling, namely: Phonemic awareness, Phonics, Vocabulary, Fluency, Reading comprehension and Writing.

Figure 2: The Components of Literacy



1.7.6 Phonemic Awareness

One of the important foundational skills of children's literacy development is their ability to link letters of the alphabet with their corresponding sounds (Bernstein & Ellis, 2000). Earlier, Yopp (1992) identified this as phonemes which a learner can develop and manipulate to acquire phonemic awareness skill through matching words with sounds, isolating a sound in a word, blending individual sounds to form a word, substituting sounds in a word and segmenting a word into its constituent

sounds. This formative literacy skill is sometimes lacking in most primary school pupils' literacy skill acquisition because usually the pupils are taught to memorize and recognize the letters of the alphabets without relating them to their corresponding phonemes. Other researchers have reiterated that the lack of phonemic awareness creates a visual gap that eventually affects the reading comprehension, fluency and vocabulary development of pupils. (Stanovich, 1986; Bernstein & Ellis, 2000; Torgesen, 2000).

1.7.7 Phonics

Adams (2004), defines phonic skill as the ability of children to apply their understanding of phonemic awareness to the identification of spoken or written words. In other words, phonics is a skill that assists children to recognize or interpret the letters in print on a page as they develop their reading skills. Since children cannot develop this skill without proper instruction, teachers are supposed to consciously assist them in word recognition in order to gain automaticity and fluency in reading (Olson, 1977; Olofsson & Lundberg, 1985; Yopp, 1992).

1.7.8 Reading Comprehension

There seems to be no definite definition for reading as a skill. However, for the purposes of this research, Reading as a skill, is defined as a psychological process of making meaning from a written message. This is done by decoding encoded messages on a page based on the readers' social environment. Goodman (1988) and Pearson (1993) had earlier explained that the first three years of children's basic education is to develop reading skills that can support them through primary education. Similarly, Ninio and Snow (1996) maintain that children who are unable to read properly by P.3 are likely to have challenges in their academic development. In support of this, Leppänen, Niemi and Aunola, (2004) in their research suggested that in order for the pupils to benefit from reading instruction at the early grades of basic school, teachers should help them develop all the basic literacy skills. Such skills which include children's acquired vocabulary and understanding of context meaning of words automatically support their reading skills.

1.7.9 Writing

Within the context of this research, Writing as a skill is defined as the process by which pupils construct meaning through different text forms. Writing, which similar to Reading has been defined in various ways. Larios, Marín and Murphy, (2001) define writing as a form of interaction between the reader and the writer's knowledge that occurs within a specific context. The importance of writing skills for literacy acquisition in the classroom is that it allows children to express their perception and understanding of a lesson. To support this, Archibald (2004), explains that writing as a literacy that skill can also help develop the child's reading comprehension skills.

1.7.10 Vocabulary

Schmitt, (2008) defines Vocabulary as knowledge of words and their meanings. Anderson and Nagy, (1991) confirm that the knowledge of words is an integral part of literacy acquisition. The assessment of the child's word knowledge from the kindergarten to P.3 is therefore very crucial in their literacy development. Instruction in vocabulary acquisition has also been a challenge to pupils developing this skill. However, Biemiller, (1999) cautions that in order for pupils to acquire the requisite vocabulary skills for literacy, the teaching of vocabulary should be context-based and not just a mere recitation and repetition of isolated words. This context-based teaching of vocabulary helps the child identify the words and understand the several meanings of words in varying situations. Other researchers also argue for the prioritization of listening skills as a means of improving the pupils' vocabulary in the classroom (Carlo, August & McLaughlin, 2004; Neuman & Dickinson, 2003).

1.7.11 Fluency

Fluency is defined as the development of the ability to automatically recognise words and effortlessly decode words meaningfully (Kuhn and Stahl, (2003). Sinatra, Brown and Reynolds, (2002) had earlier explained that children who have the ability to skillfully decode words develop fluency which is one of the essential skills of literacy

acquisition. This confirms that when children are able to link decoding with meaning, it is seen as a sign of their acquisition of fluency skills.

This research, in addition to the components mentioned above, considers Unesco's (2003) statement that literacy is 'a learner's ability to read and write a simple statement on his or her everyday life' (p.23) as its general working definition of literacy. Thus, literacy acquisition within these components assists with the development of the basic cognitive skills of learners in their early years of school over a period of time.

1.8 Literature Review

The research reviews literature on second language theories, with focus on the Cummins' Threshold theory as its main theoretical framework. It also discusses related issues on Bilingualism and Multilingualism within the framework of literacy development among pupils. This section further reviews literature on code-switching in classroom settings.

Pence Turnbull and Justice, (2011) state that a theory of language is a claim or a hypothesis that provides explanations for how and why children develop their ability to learn a language. Second language learning theories are thus central to the teaching and learning process, and though these theories have gone through many changes, each learning theory has also added significant knowledge to language learning in the second language classroom in many ways. Therefore, the clearer the understanding of these theories, approaches and methods for teachers, educators and material developers is, the better the framework they will provide for effective teaching and learning. As stated, some of these theories have been criticized and reviewed and these have been explained in the next chapter; however, the research still finds a selection of the theories relevant to pupils' academic performance in literacy.

1.8.1 The Threshold Theory

The theoretical framework underpinning the research is the Threshold Theory by Cummins, (1979a). According to this theory, Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency Skills (CALPS), Subtractive and Additive Bilingualism and The Developmental Interdependence Hypotheses are all essential for a learner's language learning process. Cummins, (2001) later expounded in the Threshold Theory that a child who has knowledge in two languages must achieve minimum threshold levels of proficiency in both languages before the benefits of knowledge of the two languages can be observed. This means that the higher the level of proficiency in the first language, the more likely it will contribute to the acquisition of a second language. Thus, a learner learning a second language has to reach a level, which Cummins, (2001) identifies as 'a threshold', before developing competence in the second language.

The research investigates this claim among P.3 pupils who are exposed to two languages at the same time during the teaching and learning process. In addition, the research seeks to prove that a thorough knowledge and effective application of this theory by P.3 classroom teachers is needed. Further, the knowledge and application of the theory by teachers, will support pupils' successful academic performance in literacy, and will transition the P.3 pupils from a mother-tongue medium of instruction to an English medium of instruction without hindrances.

The next section reviews selected second language theories.

1.8.2 The Behaviourist Theory

Behaviourists claim that language learning is like any other kind of learning that involves habit formation (Ellis, 1994). The Behaviourists see learning in a classroom situation as a simple straight-forward process of response to stimuli. Instruction in the Behaviourists' classroom is direct and teacher-centred.

Skinner, (1957), one of the proponents of the Behaviourist Theory, introduced the concept of Operant Conditioning. The basis of his theory is that language learning

focuses more on external factors than on the internal processes of the learner. The basic strategies for this theory are Imitation, Reinforcement and Rewards. The demonstration of this for the research is that the teacher in the language classroom provides words as models for the learner, and the learner tries to imitate and practise them for a period of time. Correct utterances are thus positively reinforced and the process continues into more complex word and sentence formation. If the practice is found successful, the learner is rewarded for it, and the learner then forms a learning habit.

The Behaviourists' Theory further supports the concept of motivation as an essential part of the learning process. Gardner, (2010) refers to motivation as the extent to which the individual works or strives to learn a language because of a desire to do so and the satisfaction experienced from this activity. This suggests that motivation constitutes an essential factor that influences the rate of success in learning a second language. He further argues that learners, who are already exposed to two or more languages at a time, need the reinforcement and motivation to reduce the unnecessary interference of the additional languages they have already acquired. The implication of this to the research is that the P.3 teacher is encouraged to make good use of rewards, such as "very good," "good" or "keep it up," as earlier propounded by Skinner, (1957), when the learner gives correct responses. However, the learner should get no rewards when the responses are incorrect.

1.8.3 The Environmentalist Theory

Another Second Language Learning Theory which the P.3 classroom language teacher needs to understand and use effectively during the teaching and learning process is the Environmentalist Theory. Schumann, (1978) a renowned external-oriented theorist of language learning, lays the foundation for the Environmentalist Theory of Second Language Learning, and posits that the outside influence or the environment within which a learner operates is indispensable to the learner in the Second Language classroom. The Environmentalist Theory of language learning proposes that the child's environment shapes learning and behaviour. Thus, to the

Environmentalist, human behaviour, development, and learning are influenced by the environment in which the learner lives. This perspective has made many educators to understand that young children develop and acquire new knowledge by reacting to their surroundings.

1.8.4 Constructivist Theory

Vygotsky, (1978) and Piaget, (2004), two ardent Constructivists, present two slightly different views on how a learner learns a language successfully. Their views differ in the extent to which the social context is relevant to the learner in the language learning process. Piaget, (2004) presents the biological view of language learning and believes that learning is a cognitive process which takes place in the brain of the learner.

In its broadest sense, Constructivism is a theory of learning based on the belief that knowledge is constructed by the learner through active, mental processes of development. Thus, Constructivists posit that learning is an internal process influenced by the learner's perception, prior knowledge and learning goals. Brooks and Brooks, (1993) explain that the important aspects of Constructivist Theory in language learning focus on the learner – the learner-centred approach. For learning to occur, all learners in a classroom must possess some life experiences to begin with. Additionally, a holistic approach to learning is presented for the learner to have the opportunity to disintegrate the whole to parts.

Vygotsky, (1978) argues that learning is a social interaction in which learners play an important role. Piaget, (2004), in relation to the notion, is of the view that children's development must necessarily precede their learning. Vygotsky, (1978) further stresses that social learning tends to precede development, but agrees that learning has to be developmental. As a result, he introduces the Zone of Proximal Development (ZPD) as an integral part of the learning process. This view, further explained by McLeod, (2007) states that a learner who is unable to perform a particular task takes instructions from the teacher on how to do it correctly. With

time, the learner gradually develops the ability to perform the same tasks and other tasks without help or assistance from the teacher. The difference between what learners can do with help, and what they can do without assistance is called the Zone of Proximal Development. “What a child can do with assistance today, she will be able to do tomorrow” (Vygotsky, 1978: 87). Within the zones or areas, more competent supporters such as peers, adults, and the classroom teachers help the learner to attain development.

The implication of this view to the research is that in a classroom situation, when collaborative activities are introduced, pupils are likely to operate within one another’s zones of learning. Thus, a teacher who is familiar with this tenet and understands it employs the concept in the language classroom. This enhances more understanding of issues in lessons than when the pupils are operating in their individual zones.

The research further investigates and verifies the application of these theories in the selected P.3 Language and Literacy classrooms. The next two sections discuss Bilingualism/Multilingualism and literacy development and Code-switching and Code mixing, in the language classroom.

1.9 Bilingualism/Multilingualism and literacy development

Hornberger, (1989) explains that there are different types of bilinguals, ranging from a native-like control of two or more languages to barely possessing minimal proficiency skills in two languages. For the purpose of this research, bilingualism is defined as being proficient and literate in two languages within the school context. As a result, attention is given to pupils’ ability to use both mother-tongue and English in the development of their literacy skills in school.

Multilingualism is a common phenomenon in most African societies. Multilingualism is simply defined as the ability to speak and understand many languages. However, for this research, multilingualism refers to the language diversity among pupils and is used interchangeably with bilingualism in a classroom setting.

1.10 Code-switching and Code-mixing in classroom settings

Myers-Scotton, (2006) defines code-switching as a change from one language to another during an interaction. The research does not make any clear distinction between Code-switching and Code-mixing; hence, discusses Code-switching and Code-mixing as one common phenomenon between the teacher and pupils in the P.3 classroom where English is used as a medium of instruction. Myers-Scotton, (2006) observes that some teachers code-switch in the language classroom because of incompetence in the medium of instruction. Baker, (2011) on the other hand, states that teachers code-switch/code-mix in the language classroom when the accurate meaning of a word is not known to them during an interaction, or they code switch to reinforce or explain a point. The most common instance of code-switching/code mixing occurs when a teacher introduces a new topic in class. The research observes that code-switching is more usual and permissible among teachers than pupils in the Language and Literacy classroom.

Some related projects on mother-tongue cases in Africa are discussed next.

1.11 Mother-tongue Cases in Selected African Countries

Multilingual countries such as Nigeria, Ghana, South Africa and Cameroon have drawn up and implemented language policies which determine choices in medium of instruction mainly to protect regional and ethnic languages (Echu, 1999). Debates on mother-tongue-based instruction in lower primary schools have received much attention over the years (Alidou *et al.*, 2006; Heugh, 2006; Bamgbose, 2011b; Prah, 1995). Yet, there is still controversy over which medium of instruction – English or mother-tongue in lower primary classrooms. This section examines mother-tongue cases from Nigeria, Cameroon, South Africa and Ghana. These cases are empirical studies that support the view that when a child is taught in a language that he or she is familiar with, that child learns better, and is able to develop literacy skills more successfully.

1.11.1 The Ife Project – Nigeria

The Nigerian language-in-education policy from the late 1970s was reconstituted and adopted nationally in 1981. The policy among other things supports the Six-year late exit model in the use of the mother-tongue as medium of instruction. The use of mother-tongue from primary one to primary six is considered the Late Exit Model. This was successfully demonstrated in the celebrated Ife Project (Fafunwa *et al.*, 1970). The project, which was in the lead with the Six-year mother-tongue medium of instruction was mandated to prove that when pupils are taught in a language that they are already familiar with, they learn better.

The project supported the argument that the longer learners are exposed to the mother-tongue in the classroom, the better they perform in subjects taught in L2 (English medium of instruction). Heugh, (2006) confirms that countries, such as Ghana, that have the Early Exit Model (use of Mother-tongue medium of instruction from P1 – P3.) have never been successful in reducing academic failure.

1.11.2 The Kom Experimental Project – Cameroon

Unlike Ghana, Nigeria and South Africa, Cameroon has no well-defined language policy. The language-in-education policy in Cameroon aims to encourage bilingualism in English and French. It therefore has paid little or no attention to its 280 local languages in its policies or programmes (Echu, 1999). However, most of the efforts being made in the use of mother-tongue medium of instruction has been by Non-Governmental Organisations such as the Summer Institute of Linguistics (SIL) Cameroon, Cameroon Association for Bible Translation and Literacy (CABTAL) and National Association of Cameroonian Language Committees (NACALCO). This attempt was mainly in Programme de Recherche Operationnelle Pour l' Enseignement des Langues au Cameroun (PROPELCA) Tadadjeu and Sadembouo, (1984). The relevance of selecting Cameroon as one of the countries for the study is because of the Kom Mother-tongue Project currently on-going.

The Kom Experimental Mother-tongue Education Project initiated by Walter and Chuo, (2012), still ongoing, is trying to find out how children perform if they are taught in a mother-tongue they are already proficient in. In the experiment, it is revealed that those who use mother-tongue medium of instruction show performance advantage over those who use an English medium of instruction in P.3. However, there seems to be no significant gap in pupils' academic performance in P.4 when the medium of instruction changes to English. The research further investigates these claims and discusses their outcomes in Chapter 5 of the research.

1.11.3 The Molteno Mother-tongue Project – South Africa

With such obvious divisions in the country after apartheid, the South African government, in its current language-in-education policy, aims at encouraging and promoting multilingualism in the country. As such, redressing the past linguistic imbalances by avoiding the dominance of English and Afrikaans, and promoting linguistic freedom of choice was made a priority (Tshotsho, 2013). The 1994 language-in-education policy in South Africa gave schools the choice of using a local language as medium of instruction at the basic level until grade 4 or 5, with English or Afrikaans taught as a subject. The policy, unlike the previous ones, selected 11 official local languages to be used, in addition to English and Afrikaans, as mediums of instruction. Out of this, the Molteno Mother-tongue Project emerged.

The Southern Africa Molteno mother-tongue project was initially established to address the deficiencies in pupils' literacy levels at the basic level. The programme strongly supports the view that when children are taught in a home language that they are already familiar with, they are able to transit to a second language – English successfully. However, parents prefer their children to be taught in the English language instead of the local language. Also, there is the problem of training for teachers and learning materials in the local languages. As a result, teachers either code-switch/code-mix in class to explain concepts, or in some schools, use another foreign language (Tshotsho, 2013).

1.11.4 The National Literacy Acceleration Programme – NALAP, Ghana

Based on earlier discussions on Ghana's language-in-education policy and medium of instruction, it is clear that the choice of the medium of instruction in the lower primary schools has not been uniform. Ghana's language-in-education policy since its inception from 1925 has gone through a chequered history (Owu-Ewie, 2006). As stated earlier, several attempts have been made to modify the policy. In 1957, nine local languages were officially selected to be taught with English language as medium of instruction. This was based on what the early missionaries had done, and what was later modified and promulgated as a language-in-education policy in 1925. A reversal to this use of only local languages for the first three years was done in 1971. Thus, before 2002, only the prevalent or dominant Ghanaian language in a locality was used as medium of instruction, with English taught as a subject (Andoh-Kumi, 2002). However, this was overturned in May, 2002 when the government re-introduced the "English-only" language-in-education policy as medium of instruction from KG1 – P.3.

This move received much opposition and in 2006, the Ministry of Education, in collaboration with USAID, Ghana, began a new intervention, the National Literacy Acceleration Programme, to support mother-tongue education from KG1 – P3.. Even though textbooks were developed in all the 11 government approved languages, the main objective of improving the literacy levels of pupils by 2010 has still not been met. In view of this, an ongoing project is currently underway to introduce a bilingual – English/mother-tongue medium of instruction into lower primary classrooms in Ghana. Noteworthy is the fact that throughout the oscillating history of the policy, and with all the modifications and other interventions, the Early Exit Model has always been favoured.

Chapter 3 later presents a thorough discussion of these projects, and critically examines its implications for the academic performance of P.3 pupils.

1.12 Research Methodology

This research relies on the definition that research methodology is a procedure by which an attempt is made to systematically, through factual demonstration, answer a question or find resolution to a problem. Also, that methodology is a way of obtaining, organising and analysing data. In other words, research presents “a careful, systematic, patient study; and investigation in some field of knowledge, undertaken to establish facts or principles” (Polit & Beck, 2004; Leedy & Ormrod, 2015, p.23). Aptly, this is a fact-finding research which seeks to methodically assess the choice of medium of instruction on the academic achievement of pupils’ literacy skills in both monolingual and multilingual P.3 classrooms, sited in urban, peri-urban, and rural areas of the Greater Accra Region of Ghana. In order to achieve this, the research adopts a mixed methodology – qualitative and quantitative methods for data collection.

A mixed methodology is a blend of both qualitative and quantitative methods of data collection for the same study. It also involves the use of both approaches in tandem so that the overall strength of a study comes out greater and more explicitly than a singular qualitative or quantitative research (Creswell & Clark, 2007). Creswell, (2013) again explains that the merging of the two methods of quantitative and qualitative which falls under mixed methodology results in the data collection and analysis producing mixed results.

Using mixed methodology, the research assess the assumption that issues of medium of instruction and pupils’ academic performance are fundamental to all primary schools in Ghana. In addition, the research also investigates a second important issue of language diversity in the P.3 classroom. So, as an action research, involving issues centred in the classroom, the teacher and pupils play active roles; thus, featuring measures of action. Action research, as explained by Little and Rawlison (2004), allows teachers and educators to learn and investigate the teaching and learning process in their classrooms, while they continue to monitor and improve performance levels of their pupils.

The context of this research is unique and by treating it as a case, it is more likely to produce what Rawlinson and Little, (2004) explain as a holistic presentation and interpretation of the data collection technique. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 1994). The scenario of the language situation in each of the selected schools for the study is different. As a case study then, the research provides an in-depth description of the language situation, and the academic performance of the pupils in each of the selected P.3 classrooms. A case study methodology, as explained earlier by Yin, (2003) is most useful when “the boundaries between the phenomenon and the context are not clear and distinct.”(p.15) Cohen, Manion and Morrison, (2013), further explain that a case study allows the researcher to identify and scrutinise one case which could be modified and adapted for the benefits of other cases. Another advantage of case studies which supports this research is its descriptive and exploratory nature which allows for a multiple data collection technique which opens new areas and factors that may influence the final outcome of the research.

The research further employs primary data collection techniques and these are explained the next section.

1.12.1 Primary Research and Participation

As indicated earlier in chapter 1, the research is based in Ghana. However, the research sites are in the Greater Accra region of Ghana, and research sites cover urban, peri-urban and rural geographical zones of the region. In all, 8 schools were selected within these zones, with varying linguistic compositions of both multilingual and monolingual classrooms were selected for the research. Further details of this are provided in Chapter 4.

The research involves participants, and there are referred to as the population. Population has a very specific meaning, and it refers to the group of people to be

investigated. Sampling refers to the process of selecting individual representatives for a study (Strydom, Fouche & Delpont, 2002). Sampling of participants was done, and in order to answer the research questions, the purposive sampling technique was used. The selection of sample size was drawn from the total population of primary schools across the country. Based on information available from the Ministry of Education, Ghana (2015), there are approximately 14,405 primary schools in Ghana. The Greater Accra Region of Ghana, the target site for the research, has a total of 5,130 primary schools. Out of this number of primary schools, eight (8) primary schools were selected. In all, a total number of 293 pupils, 24 parents, 16 head teachers and class teachers, 4 educationists/stakeholders and 8 Circuit Supervisors were selected for the research. These 8 schools, situated in monolingual and multilingual language communities, fall within the three geographical zones as explained earlier. In addition, the composition of the diverse language groups in the classrooms, which the research investigates, were fairly well represented.

The criteria for this selection was further determined by easy accessibility and the linguistic make-up of the community from which the subjects selected for the study were drawn. The willingness of respondents to provide information to support the research was another consideration for the choice. Finally, the selection also factored in the class mapping and grouping of pupils in the selected schools. P.3 was selected as the best sample group to investigate for the research because it is the terminal class for lower primary. The next section explains the data collection instruments for the research.

1.12.2 Instruments of data collection

Data collection instruments for the research were semi-structured interviews, participant's observations/video recordings, and diagnostic tests. Information gathered from this source was done within a framework that allowed interviewees to express their own thoughts in their own words (Miller & Brewer, 2003). An interview is basically a purposive conversation with a person or a group of persons

(Lodico,et.al., 2006). Even though the research focuses on pupils' academic performance, it was necessary to interview parents, teachers and other stakeholders in education as well in order to solicit for their views on language choices and preferences in the classroom. Semi-structured interview were adopted because it "provided in-depth information pertaining to participants' experiences and viewpoints on a particular topic" (Turner III, 2010: 754). A semi- structured interview was an appropriate choice for the study as it allowed the researcher to ask certain major questions the same way each time, but may alter their sequence when a further probe for more information was required. This gave the researcher flexibility in the structure of the interactions with the respondents so as to elicit richer information about their attitude and behaviour towards the broader questions that would be asked (Miller & Brewer, 2003).

In addition to this, literacy lessons in the selected classes were observed with live video recordings in some cases, over a period of six (6) months. The parameters for observing these lessons were based on the teacher's language choice for medium of instruction, the pupils' response to the lessons being taught and the pupils' achievement levels in literacy through the tests that were conducted. In participant's observation, the immersion of the researcher into the setting of the research and personal reflections of the researcher on the observed, as earlier explained by Glesne and Peshkin, (1999), were essential to the analysis of the data obtained at the end.

The two instruments of data collection were measured by using qualitative research techniques. According to Denzin and Lincoln, (2000), this approach equally makes inductive conclusions under predefined headings or topics based on the researcher's interpretations of the data collected. Qualitative research technique of data collection and analysis, according to Creswell, (2007), focuses on the individual participant's interpretations of phenomena that directly or indirectly affect them. It further involves collecting data from the settings of these participants.

The research, as part of its data collection tools, also administered diagnostic tests. Testing is a common data collection tool in quasi-experimental designs. Its scientific characteristics make data collected not just reliable but valid. Tests provide a baseline to assess change after certain conditions have been introduced to the subjects under study, and help the researcher examine the effects of the conditions on the subjects (Lodico, et.al., 2006).

All the P.3 pupils in the 8 selected schools were taken through diagnostic tests (literacy achievement tests in English and Ghanaian Languages covering Phonemic awareness, Phonics, Vocabulary, Fluency, Reading comprehension and Writing Skills). The test items were based on the Ghana Education Service (GES) approved curriculum, and it conformed to what the Ministry of Education, Ghana, prescribes for pilot programmes in literacy achievement for lower primary schools in English and Ghanaian languages. The measurement of the test results involved quantitative research technique.

Quantitative research technique as defined by Berg, (2001), basically counts and measures things. The relevance of this technique to the research is that it helped determine the extent to which variables such as languages spoken were spread among the selected sample for the study. In addition, the findings from the selected sample were more accurately analysed and were modified to represent a true reflection of the overall population from which the sample was derived. Finally, using a quantitative technique for the research also helped determine whether the P.3 pupils were able to move from the Basic Interpersonal Communication Skills (BICS) level, of L1 or the home language, to the Cognitive Academic Language Proficiency (CALPS) which represents the school language. This determined whether the pupils reached the required threshold for an English medium of instruction in P.4. The next session explains the data analysis for the research.

1.12.3 Data analysis

According to Creswell, (2007), data analysis in mixed methodology research occurs both within the quantitative and the qualitative methods. The results are description and thematic text or image analysis of the two. In order to be able to categorise all the data collected from the interview, observation and tests separately, the procedure of triangulation was employed. Sagor, (1992), defines triangulation as the collecting of multiple sources of data for every phenomenon or issue under study. As such, triangulating the data collected provided the researcher with the opportunity to compare, check and close the gaps in the final outcome of the research. Apart from this, the procedure also helped to provide a more credible and valid analysis of the data collected.

The analysis of data for the study was done in three stages. First, data was prepared, organized and analysed according to themes. Secondly, the data from the interview notes and the participant's observation charts were labelled and coded into identifiable topic areas. Finally, the diagnostic test scores were organized and coded into the Statistical Package for Social Studies (SPSS and Likert) programmes to find the variance between the results of the pupils in both English and Ghanaian language tests.

The next section presents the structure of the research

1.12.4 Ethical consideration

Ethics require the researcher to “strike a delicate balance between the scientific requirements of methodology and the human rights and values potentially threatened by the research” (Creswell, 2013: p 20). As such, ethical issues were addressed at each phase of the research. A detailed discussion is further presented in Chapter 4 (see 4.4).

1.13 The Structure of the Research

Chapter 1 provided an overview of the research, and gave a brief explanation for the language-in-education policy in Ghana, the choice of medium of instruction and its

implications for pupils' academic performance in literacy in P.3 classrooms. The chapter stated the research objectives in line with the research questions. The chapter defined and explained some terminologies related to the objectives of the research, and provided a guide to the research methodology. The chapter concluded with a brief on ethical considerations of the research which is further explained in Chapter 4.

In Chapter 2, The Theoretical Framework of the research is presented. This is followed by a review of literature related to Second Language Learning Theories, and issues on Bilingualism/Multilingualism, Code-switching/Code-mixing in the classroom.

Chapter 3 highlights Some Selected Mother-tongue Studies in Africa.

Chapter 4 presents the Research Methodology and outlined the procedures involved in the research process.

Chapter 5 outlines the Data Analysis and Discussion of the research.

Chapter 6 presents the Conclusions and the Recommendations of the research.

1.14 Conclusion

The chapter presented a background to the research and outlined the problem statement, research objectives and questions. The chapter further explained the rationale for the research, and provided a brief summary of the literature review, methodology and the various components for the research. The next chapter presents the theoretical framework and the literature review.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter focuses on Cummins' (1978) Threshold Theory as its main theoretical framework. In addition, the chapter reviews literature on Second Language Learning Theories, related issues on Bilingualism/Multilingualism, literacy development among pupils and Code-switching/Code mixing in classroom settings.

2.2 The Threshold Hypothesis

The theoretical framework for the research is the Threshold Theory. This theory is discussed in relation to the choice of medium of instruction and pupils' academic performance in literacy in P.3 classrooms. The majority of school children in Ghana at the lower primary school speak at least two languages: mother-tongue, or the language(s) that the child speaks at home, which is the child's first language, and the language that the child learns at school, either as a subject or the language used as medium of instruction (Andoh-Kumi, 1992; Agbedor, 1996). This confirms Ricciardelli's, (1992) observation that in other parts of the world, some pupils already come to school with the ability to speak two languages and that it was necessary to build on this linguistic base of these pupils. It is within the context of this preamble that the research used the Threshold Theory as its theoretical framework.

Cummins, (1978), in a quest to understand how bilinguals are affected either positively or negatively, developed the Threshold Theory. The theory states that a child who has knowledge of two languages must achieve minimum levels of thresholds of proficiency in both languages before the benefits of knowledge of the two languages can be observed. Thus, the higher the level of proficiency in the first language the more it is likely to contribute to the acquisition of a second language. The threshold theory has received much empirical support from many studies across different parts of the world (Bialystok, 1988; Ricciardelli, 1992; Lasagabaster, 1998). Cummins, (1978) however cautions that children cannot achieve this threshold in

subtractive or English-only medium of instruction. To further enhance this argument, Cummins, (1979b) outlined the Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency Skills (CALPS). These are explained in the next section.

2.2.1 Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency Skills (CALPS)

The two concepts of BICS and CALPS further explain the arguments concerning the bilingual/multilingual learner's encounter at school. Cummins, (1984) explains that BICS is the language that a learner acquires from birth and in this context can be categorised as the learner's mother-tongue. Cummins, (1984) adds that BICS becomes differentiated from CALPS when the learner starts schooling. Thus, the notion of CALPS becomes limited to the context of schooling hence the interpretation of the term CALPS as Cognitive Academic Language Proficiency Skills. Cummins, (1984) further states that CALPS determines the extent to which a learner has access to the language and can use the language in both oral and written academic registers in school. Cummins, (2001) later elaborated on the BICS and the CALPS and reinforced the Interdependence Hypothesis and the Common Underlying Proficiency Hypothesis which he had propounded earlier in 1978.

2.2.2 The Interdependence Hypothesis and the Common Underlying Proficiency Hypothesis

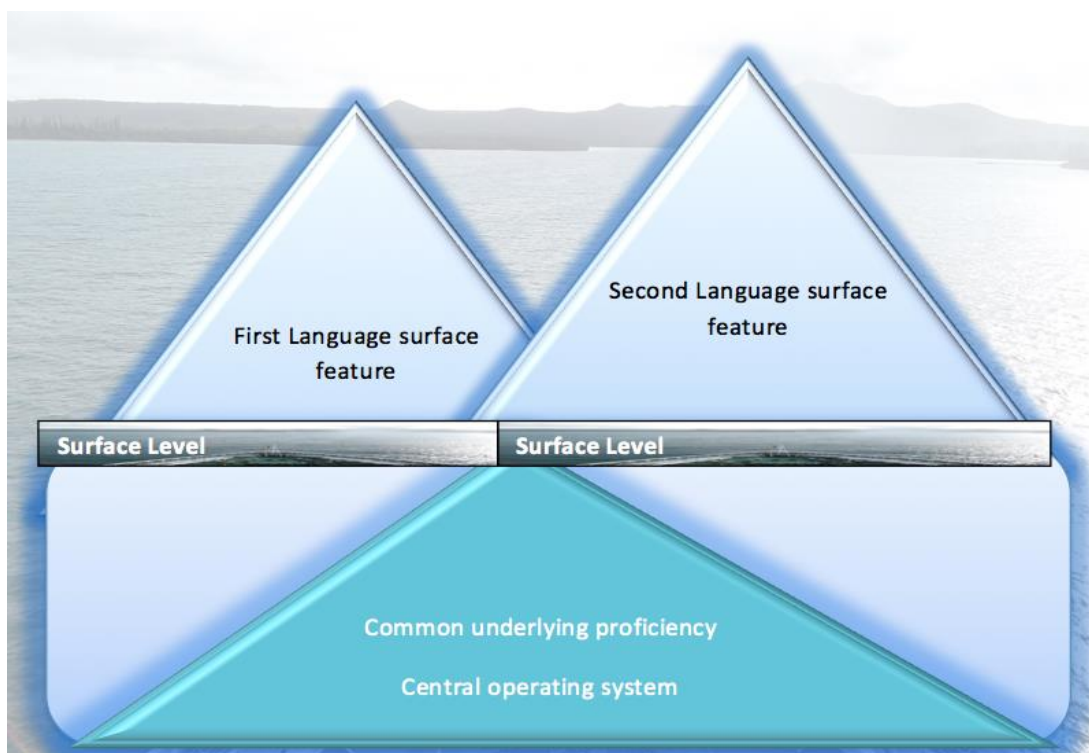
The Interdependence Hypothesis suggests that the level of competence attained in a learner's second language (L2) is to some extent related to the competence in the learner's mother-tongue (L1). In other words, The Interdependence Hypothesis, as explained earlier, by Cummins, (1981) states that:

... the extent that instruction in L1 is effective in promoting proficiency in L1, transfer of this proficiency to L2 will occur provided there is adequate exposure to L2 (either in school or environment) and adequate motivation to L2 (p.29).

In support of this, Baker, (2011) and McCaffery, (2010) emphasised the need for parents and classroom teachers to strengthen pupils' L1 both at home and in school for a balanced cognitive development of the L1. If this is achieved, this broad understanding of concepts and ideas from their L1 to L2 will be more easily transferred.

Cummins, (1981) further extrapolates the BICS and CALPS into an "iceberg metaphor." He, (Cummins, 1981), then explains that each learner has "surface features." This "surface features" of the learner's L1 and L2 are those conversational exchanges that are less linguistically and cognitively demanding. The language proficiency that lies underneath this surface features involves cognitively demanding tasks and these are common across all disciplines and languages.

Figure 3: Common Underlying Proficiency "iceberg"



Source: (Cummins, 2001) Iceberg Model

He explains that beneath the surface of a learner's first language (L1) and second language (L2), there is what he termed the Common Underlying Proficiency (CUP). Thus the CUP becomes a common source from which the learner draws both L1 and L2 proficiency to support literacy and cognitive development.

The relevance of these hypotheses to the research is that when P.3 pupils are taught in a Ghanaian language, they develop competence in the L1 and are able to develop deeper conceptual and linguistic proficiency in general academic skills in the L2 – English literacy. In other words, although the surface aspects of language fluency in both languages are separate, the Common Underlying Proficiency cuts across both languages. Thus the experience with either language can promote development of competence in both languages. These two concepts, according to Baker, (2014) support the transfer of one language to the other.

2.3 Overview of Language Learning Theories

Language Learning Theories have been extensively researched from varied perspectives (Piaget & Inhelder, 1969; Vygotsky, 1978; Cummins, 1979b; Brooks & Brooks, 1993; Ellis, 1994; Driscoll, 2000; Richards & Rodgers, 2001; Cohen *et al.*, 2010; Pence Turnbull & Justice, 2011). Many of these studies have looked at the various tenets, proponents and implications of the theories on language learning and cognitive development. This section of the research considers pupils' academic achievement in literacy within the framework of these researches of Second Language Learning Theories. The research focuses on the Behaviourists and the Constructivists views of language learning.

As stated earlier in Chapter 1, Second Language Learning Theories are generally viewed from two parallel schools of thought in linguistics and psychology. These two subject areas form the major area from which the foundations of the theories of learning are derived. Linguistically, language learning is presented primarily as a structural, oral phenomenon as supported in the findings of Heugh, (2006). Psychologists, on the other hand, view language learning as more than speech;

language learning is also viewed as an external habit-forming process (Driscoll, 2000; Richards & Rodgers, 2001). These theories have led to many other approaches and language learning and development concepts of learning a second language. Ball, (2011) supported this view and commented that language learning has a social and a historical dimension. It must be emphasised that Learning theories are central to the teaching and learning process, and Second Language Theories have gone through many changes. These changes have reflected the approach and method appropriate for the learning situation. Each learning theory has also in a way, as shown by researches available, added significant knowledge to language learning in the second language classroom in many ways. Therefore, a clearer understanding of these theories, approaches and methods by the teachers, educators and material developers provide the framework for effective teaching and learning process.

The nature of most classrooms selected for the research, where learners may be taught in a new language or learn an additional language, demands that the teacher, especially, gets a clear understanding of language learning theories. A clear understanding of this supports the development of instructional strategies for the teaching and learning process at the basic level of schooling. As already mentioned, two of the theories, for the purpose of this research, are those associated with Behaviourism and Constructivism.

Watson, (1928) and Skinner, (1957), two major proponents of Behaviourism, have influenced views of learning in education.. According to them, learning is affected by changes in the environment; as a result, they seek to prove that behaviour could be predicted and controlled. On the other hand, Constructivists are of the view that language learning and acquisition can be developed through the development of the brain, supported by constant practice of the language Baker, (2011) and Rummel, (2008) equally confirm that the behaviour of school children goes beyond the gates of the school and it is a reflection of how the society sees things. Within the framework of the research, as stated in Chapter 1, the majority of the pupils used for

the research are born into environments where they are exposed to more than one language. As a result, it is easy for them to acquire two or more primary languages simultaneously. A few of the pupils, however, begin school as monolinguals – who speak only one language – but gradually begin to acquire a second or third language during their early school years. Rau *et al.*, (2005) in their research confirmed this among the Maori and the non-Maori population in New Zealand. Two theoretical standpoints – Behaviourism and the Constructivism – views are discussed in the next section.

2.3.1 The Behaviourist Theory

Behaviourist Theory can be traced back to Watson's, (1928) habit formation hypothesis. The theory, as the name suggests, focuses on the change in the behaviour of learners in reaction to external stimuli. Behaviourists are, therefore, less concerned with the mental processes of learners and focus more on observable changes in behaviour. Behaviourists' Theory therefore claims that “only observable, measurable, outward behaviour is worthy of scientific inquiry” (Bush, 2006: 14).

Following Watson's, (1928) principle, Skinner, (1938), later coined the term Operant Conditioning which defines changes in behaviour through the use of reinforcement given after the fulfilment of a desired response. This paradigm shift, according to Jenkins, (2001), was necessary in order to cater for the gaps created in previous theories. Skinner, (1938) then identified three types of responses or Operants that can follow behaviour and sought to investigate how these habits were formed.

Skinner, (1957) further argues that language learning is also habit formation, similar to other habits. To further elaborate Skinner's, (1957) proposition, Jordan, (2004) explains that a piece of language item is a stimulus to which a learner makes a response. When the learner's response is appropriate or correct, the teacher then reinforces the learner's effort through praise, reward, or approval. As a result, the likelihood of the learner's expected behaviour increases. On the other hand, if the

learner makes an inappropriate or incorrect response, the teacher does not reinforce the learner's effort; consequently, that piece of language is discontinued. In effect, given the right environmental influences, and equal opportunities, all learners can acquire similar learning skills.

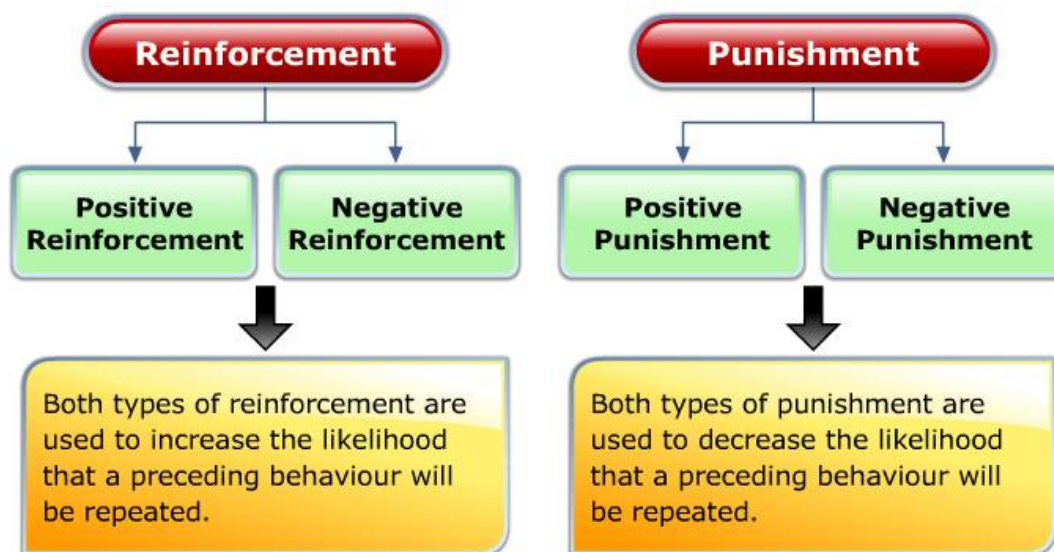
Thus the basis of Skinner's, (1957) theory is that language learning focuses more on external factors than on the internal processes of the learner. The basic strategies for this theory, which Ertmer and Newby, (2013) reiterated are imitation, reinforcement and rewards.

Skinner, (1950) in his earlier researches, had argued that studying behaviour was more useful than investigating mental states. The demonstration of this for the research is that the teacher in the language classroom will provide words and sentences as models for the learner; the learner will then try to imitate and practise these for a period of time. Correct utterances will thus be positively reinforced and the process will continue into more complex words and sentence formation. If the practice is found successful, the learner will be rewarded for it, and the learner will then be able to form a learning habit. In line with the theory, Skinner, (1950) suggests that feedback for pupils should be instantaneous in order to produce positive feedback and correct mistakes. The Behavioural Theory equally establishes that language of instruction used in the classroom is viewed as stimulus which is given in the form of activities and exercises. The learner then learns the activities and exercises through mimics, repetitions and memorisations (Oates, Karmiloff-Smith & Johnson, 2012). Once the learner is able to relate to these activities and tasks, and is adequately rewarded for them, the learner forms habits from which subsequent activities are done easily and correctly. Behavioural Theory thus allows for continuous evaluation of the learner by the teacher. This also involves constant interactions between the teacher and the learner in order to observe the progress or behaviour of the learner for a successful reinforcement.

Jordan, Carlile and Stack, (2008) later speculate that even though Skinner, (1950) did not originally consider punishment as effective as reinforcement in modifying behaviour, it is still a very relevant concept in the teaching and learning process, and could be employed by teachers as a deterrent.

The figure below illustrates the explanation of the main tenets of Skinner's theory of desirable and undesirable behaviours – rewards and punishments.

Figure 4: Reinforcement and punishment



Reinforcement and punishment: Source: based on Oates *et al.* (2005: 55).

Skinner's (1957) Behaviourist Theory and principle of Operant Conditioning has impacted, to a large extent on the positive effects of the teaching and learning process. It is assumed that a teacher following this theory will consider a learning environment that is well planned before the start of lesson (Cummins, 2000). According to Skinner, (1957) the purpose of instruction is to alter behaviour in the desired direction. Hence, the evaluation of instruction before, during and after a lesson is intended to determine whether the learners' behaviour changed in the expected direction. Again, teachers who follow this principle may consider designing

test items to ensure effective evaluation and expected behavioural change where necessary – changes in teaching methods, tasks, or learning/instructional manuals.

Skinner's, (1957) Behavioural Theory also challenged the second-language teacher to develop authentic tasks and activities within the environment that will interest pupils in the language classroom. If their efforts at mastering the skills introduced are rewarded, the pupils are encouraged and motivated to do better for greater rewards. In the multilingual classrooms, at the basic level, such drills and activity-based tasks are needed for successful Second Language learning.

Akinboye, (1992) concludes that reinforcement is an essential component of performance and competence of literary skills. All language learning skills are thus sharpened through a consistent application of reinforcement. It is beneficial for teachers to modify classroom instructions to meet the levels of learners' abilities, in order to evaluate tangible and measurable outcomes in learners' performance. Also, pupils' academic performance in literacy can be improved upon on the basis of positive reinforcements. The teaching and learning process in the school can be positively enhanced if the actors (in this context, the learners, parents, head teachers and teachers) are adequately motivated through rewards. He further argues that continuous classroom assessment in varied forms are necessary to verify what has been learnt, and if there are any behavioural changes among pupils.

The next section reviews language learning theories in line with Constructivism.

2.3.2 Constructivist Theory

Constructivism is a theory of learning based on the belief that knowledge is constructed by the learner through active, mental processes of development. Constructivist Theory thus posits that learning is an internal process influenced by the learner's perception, prior knowledge and learning goals (Miller 2000). Within this paradigm, Constructivists view learners as constructors who wholly and actively

interact with the learning environment to construct their own understanding of new knowledge presented. Additionally, Constructivism is based on the principle that knowledge and understanding are acquired through the construction of mental processes by individuals out of current exposure which is based on previous experience. Thus, “information is built into, and added onto, an individual’s current structure of knowledge, understanding and skills” (Pritchard, 2009: 17) .

Brooks and Brooks, (1993); Bruning, Schraw and Ronning, (1999) and Wardhaugh, (2011) reiterate the fact that an important aspect of Constructivist Theory in language learning focuses on the learner who comes to the classroom with some life experiences. These experiences are then shared, through interactions, by those around including teachers, peers, friends and the society in general. Within this social interaction, the learner is presented with an opportunity to disintegrate the whole to parts. Tams (2000) also explains that it is important for the classroom teacher to constantly create a learning environment that directly exposes the learner to the material being studied as well as allow learners to experience, and derive meaning directly from the world around them. To sum up the two views, while Behaviourists would focus on the content to be learned and assess the influence of the environment on the learning process, a Constructivist would try to construct meaning from the experiences relating to the environment (Bush, 2006).

In the research, the two views are intermixed in the observation process by assessing the classroom and also the content of what is to be taught and maintaining some level of control on the external environment and building on the experiences from the environment (Alexander, 2001).

2.3.2.1. Constructivism and Cognitive Development: Piaget and Vygotsky

Piaget and Inhelder, (1971) and Vygotsky, (1978) are ardent Constructivists, who present different views on how a learner learns a language successfully. Their views differ to the extent to which the social context is relevant to the learner in the language learning process. Piaget and Inhelder, (1971) in their theory of Cognitive

Development try to understand learning within the context of biological development. They discovered that learning is an active process of construction of mental schemes rather than a passive assimilation of information or rote memorisation. This view is similar to Chomsky's, (1975) proposition that the human brain is genetically fitted with an in-built brain organ, a device which he calls the Language Acquisition Device (LAD). This means that language learning is an inborn feature, so learning a language is done intuitively. Thus, the factors that are responsible for language learning are more internally controlled than externally controlled. This suggests that the teacher must allow time for learners to practise and to assimilate what they are learning before additional information is added.

To Piaget and Inhelder, (1971) the drive and motivation to learn and the willingness to understand things are determined by disequilibrium states in learners. In learning, Piaget (ibid) points out that whenever there is an inconsistency between the learner's cognitive structure and the thing being learned, the learner reorganises his/her thought. This suggests that learning goes hand in hand with the discreet stages of development as opposed to cognitive ideas and the concepts of influence from the immediate environment. Thus, a child's capacity to understand certain concepts is based on the child's developmental stage. In brief, Piaget and Inhelder, (1971) present the biological view of language learning and believe that learning is a cognitive process which takes place in the brain of the learner. The theory therefore addresses learning and development nexus as opposed to specific environmental behaviours (Ertmer & Newby, 2013).

Vygotsky, (1978) rejected Piaget's notion of development preceding learning and argues that learning is more of a social interaction in which learners play an important role. Learners are thus seen as "active constructors of their own learning environment" (Mitchell & Myles, 1998: 162).

The first tenet of Vygotsky's theory is that a child's development is greatly influenced by the child's society and culture. This, according to Vygotsky, (1978) means that

“every function in the child’s cultural development appears twice: first on the social level – between people – (interpsychological) and later on within the individual – (intrapsychological)” (p.57).

The second tenet of Vygotsky’s theory states that all cognitive development processes occur through mediators within the social setting. In this sense, learning is greatly influenced by the interactions within the learners, so in order to facilitate development, the child needs “tools” which could be symbols or signs – language, play, art, cultural artefacts and the likes. These “tools,” as suggested by Jones and Brader-Araje, (2002) are part of the cultural settings of the learner, but are subject to change as time progresses.

The third tenet of Vygotsky’s theory states that learning is greatly influenced by the interactions within the learner’s social milieu. This means that a growing child learns, derives meaning and forms habits at various stages of development within the learner’s social or the classroom setting (Alexander, 2001).

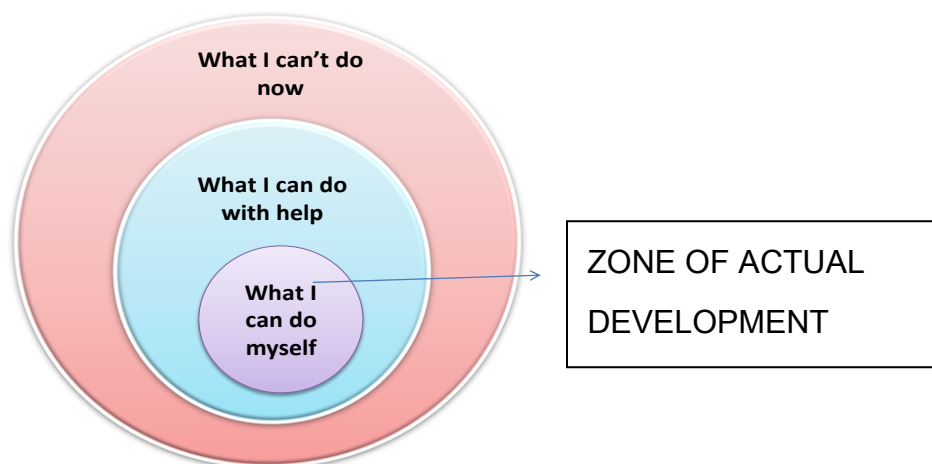
Driscoll, (2000) confirms that within the learner’s socio-cultural milieu, a child’s cognitive development is an on-going, collaborated effort, supported with explicit instructions from the teacher, parents, peers and the learner. In effect, social learning tends to precede development and that even though learning is a cognitive process which takes place in the brain of the learner, learning has to be developmental within the social environment.

Vygotsky, (1987) later introduced the Zone of Proximal Development (ZPD) as an integral part of the learning process. The ZPD, according to Vygotsky (1987),

“ is the distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers ” (p. 86).

As confirmed in Jones *et al.* (2008), the gap within the ZPD can also be referred to as the “More Knowledgeable Other” (MKO). The MKO can be teachers, parents, peers and anybody or anything with a higher level ability than that of the child, and can assume the role of an expert, to effectively interact and support learners in the learning environment (Cunningham & Duffy, 1996; Walqui, 2006). Below is an illustration of the ZPD:

Figure 5: The ZDP



**“What a child can do with assistance today,
she will be able to do by herself tomorrow”**

Source: Innovative Learning

When a teacher gives a task and the learner is able to accomplish it without any assistance, it means that the task lies within what Vygotsky (*ibid*) calls “The Zone of Actual Development” (ZAD). According to Baker, (2014) teachers need to be observant and be able to tell when learners are within both zones.

In other words, the capacities of the child in the cognitive development ladder are functions of teachers, parents, peers and the environment as stated earlier. The responsibility of the learner’s success or failure during the teaching and learning process depends on the teacher and the members of the cycle (Jordan, Carlile and

Stack, 2008). It is not enough to assist a learner, but the assistance should be rigorous and practicable at the level of the learner to enable him/her internalise the strategies to employ that will make them succeed in the learning process. This process if adequately applied enhances learners' psychology and personal problem solving repertoire (UNESCO 2006).

In support of the Zone of Proximal Development, Wood, Bruner and Ross, (1976) introduced the notion of Scaffolding. As in the traditional sense, scaffolding is a framework put up while constructing a building to support the builders climb the tall, structure. Once the construction is finished, the scaffolding is removed. Wood, Bruner and Ross, (1976) then define scaffolding as a tool for language learning, as "a process of 'setting up' the situation to make the child's entry easy and successful; then gradually pulling back and handing the role to the child as he/she becomes skilled enough to manage it" (p. 60).

Fernandez and Pearson, (1992) highlight the role of the teacher during the scaffolding process. Firstly, teachers should allow learners to become familiar with the tasks (as defined by the teacher), then simplify the task for easy understanding for the learners. Additionally, teachers need to simplify and model the required activities and be able to guide the learners to achieve their specific goals. By doing these, the learners' frustration and risk of failure are minimised. Most importantly, the theory indicates that teachers in the classroom can only facilitate the learning process, but not instruct/transmit it.

It is noted that in the act of scaffolding, there are other constituents who assist the learner. Apart from the "tools", artifacts and the historical, cultural background of the learner which support the learning process, there is the presence of the MKO to maintain a fair balance.

The implication of this view to the research is that in a classroom situation, when collaborative activities are introduced, pupils are likely to operate within one

another's zones of learning. Thus, a teacher who is familiar with this tenet and understands it will employ it in the language learning classroom. This will enhance more understanding of issues in lessons than when the pupils are operating in their individual zones. In effect, if lessons are based on children's previous experiences, the local context, and local practices, there is a greater incentive to learn. Children have a great deal to offer to the process of constructing knowledge (Giroux, 1989).

The discussions above maintain that the main goal of classroom instruction is to support learners to engage in meaningful interactions that are congruent with the practices of the communities within which they live. Richards and Rodgers (2001) agree that second language classrooms have become more social than individualistic in nature.

Dimitriadis and Kamberelis, (2006) are of the view that "Piaget grounded his developmental learning theory in the individual learner and positioned children as active, intelligent, creative constructors of their own knowledge structures" (p.170). In contrast, Vygotsky's main construct of the Zone of Proximal Development (ZPD) learning "depends upon outside social forces as much as inner resources" (Palmer, 2011: 35). Vygotsky believed that if students were not improving academically, their instruction was inappropriate. This belief contradicts Piaget's reasoning that the students may have "plateaued" in a specific developmental stage. The question is: *what do teachers do in their classrooms with their learners?*

Driscoll, (2000) observed that many educational programmes are built upon the belief that children should be taught at the level for which they are developmentally prepared. By successfully incorporating Piaget's and Vygotsky's theories into the classroom, developmental psychology in elementary education can positively impact student achievement. "When our students have the cognitive foundation to learn how to learn, they can discover what else is 'out there' in our world..." (Garner, 2008: p. 38). Thus, to achieve the desired academic performance in literacy at the early

stages of schooling, Walter and Chuo, (2012) are also of the opinion that in each teaching and learning environment, the understanding and application of the theories of second language learning are paramount.

The ensuing sections presents the concepts of Bilingualism/Multilingualism and Code-switching/Code-mixing.

2. 4 Bilingualism/Multilingualism: A case of lower primary classrooms in

Ghana

This section discusses issues of Bilingualism/Multilingualism with focus on additive and subtractive bilingualism for literacy development in lower primary schools in Ghana. According to Bialystok (2001), Bilingualism/Multilingualism is key in literacy development among early learners; he however states that this role is neither straightforward nor singular. Being bilingual or a multilingual is not uncommon in most classrooms anywhere in Ghana. The cross-cultural and ethnic character of most communities in the country especially in the urban and peri-urban communities makes this possible. This situation is one major contributory factor in the choice of English as medium of instruction in many of the selected schools for the research.

As much as acquiring an additional Ghanaian language(s) is largely from association with parents, members of the wider community and other children from home and school, the language-in-education policy for lower primary school does not require pupils to be literate in that Ghanaian language by the time they enter school, nor in order to progress in their education. The expectation is that they must be literate in both a Ghanaian language and English by the time they complete P3. This situation thus brings to fore the linkages between Bilingualism/Multilingualism and literacy development of pupils at the primary school level.

A universally accepted definition of Bilingualism is hard to come by (Liddicoat, 2012). In the early days of the study of the phenomenon of Bilingualism, Bloomfield, (1933) was of the view that bilingualism entailed “native-like control of two languages” (p.35). By this definition, the majority of individuals whose proficiency in one of the

two languages is below the native-like control were not considered as bilinguals. This thus raises the issue of how proficient one must become in both languages to be considered a bilingual. Baker, (2011) however points out that in terms of language competence, a bilingual is a monolingual individual who has the ability to use an alternate language with equal competence in both languages. Multilingualism which is prevalent in most Ghanaian urban language classrooms, allows an individual speaker the ability to speak and understand more than two languages competently.

2.4.1 Additive Bilingualism and Subtractive Bilingualism

Bilingualism and Multilingualism are not without effects. In Bilingualism, the effects may either be 's Subtractive' or 'Additive' in nature and they are respectively captured in the 'twin concepts' of 'Subtractive Bilingualism' and 'Additive Bilingualism' (Lambert, 1983). These two forms of Bilingualism are described as 'twin concepts' because they seem to be flip sides of the same coin which arose out of the need to explain the differences in the findings obtained on the effects of bilingualism between children of minority and dominant ethno-linguistic backgrounds. In additive bilingualism the two languages are complementary to each other, whilst in subtractive bilingualism the two languages are in competition with each other (Plüddemann, 1997; Liddicoat, 2013).

2.4.1.1 Additive Bilingualism

In a study conducted in Canada, it was discovered that native English-speaking children found it easy to learn French in Canada, without losing control of their native language (Lambert, 1983). However, in the United States and much of Europe, the opposite of the foregoing was observed in immigrants or minority children, in that the learner's proficiency in their mother-tongue was either greatly diminished or lost and replaced by the second language.

Using an Additive Bilingual approach, lower primary pupils who are taught in their mother-tongue, will steadily progress in a second language – English as explained in Chapter 1. In addition, English language will be taught as a subject. This approach

will allow the pupils to build adequate levels of proficiency in the mother-tongue. The skills acquired in gaining literacy in the mother-tongue will then be extended to the learning of English as explained earlier in Chapter 2 as BICS and CALPS.

2.4.1.2 Subtractive Bilingualism

In cases where immigrant/minority children are consciously or unconsciously made to look down on their native language by virtue of the dominant status of the second language, and it being used as the only medium of instruction, proper development of bilingualism and bi-literacy in these (immigrant/minority) children would most likely be impacted (Liddicoat, 2013). This is a case of Subtractive Bilingualism, and would eventually lead to loss of the mother-tongue in the learners, when focus is shifted towards the dominant language (Cummins, 2000). Subtractive Bilingualism is what characterises the language condition of some of the pupils observed in the selected schools. Similarly, gradual language shift of Subtractive Bilingualism is seen among pupils in many Ghanaian classrooms.

Plüddemann, (1997) posits that Subtractive Bilingualism is often characterized by two conditions: (1) lack of strong home support for the first language; and, (2) when no allowance is given to the first language as a medium of instruction in the school. The second condition seems to be the case for most pupils in the Ghanaian lower primary school context. In his work, Kraft, (2003) further illustrates this situation when he states that the proportion of lower primary pupils in Ghana who attained proficiency level in the English language were relatively low, while the majority of lower primary pupils in Ghana at the end of six years of primary education equally have low literacy levels in both mother-tongue and English.

2.4.2. Effects of Bilingualism/Multilingualism on Academic Performance in Literacy of Lower Primary Pupils

As stated in this chapter, studies over the years have confirmed that when lower primary pupils are taught mostly in their mother-tongue, they perform better intellectually which translates into enhanced academic performance in literacy

(Cummins, 2000; Malone, 2003). Similarly, pupils' literacy in English in lower primary is highly dependent on a solid foundation of pupils' mother-tongue in schools. This perhaps explains why out of the sixteen Principles of Education espoused by Gordon Guggisberg to the Gold Coast (now Ghana) Legislative Council in 1925, the 12th principle read: "Whilst an English education must be given, it must be based solidly on the vernacular" (McWilliam & Kwamena-Poh, 1975: p.32). It is thus reiterated that when a learner is well grounded in mother-tongue, it paves the way for ease of learning of the English language.

As a move to promote additive bilingualism, most African countries, including Ghana have reviewed their language-in-education policies at the basic level. As in South Africa, the government of Ghana has also approved 11 indigenous Ghanaian languages as medium of instruction in lower primary schools. In addition, the language-in-education policy in Ghana has further indicated that while pupils are taught in a mother-tongue medium of instruction, English should be taught as a subject. By this, pupils would be able to reach a threshold of literacy achievement in English and a Ghanaian language by P.3 for an all English medium of instruction in P.4.

2.4.3 Bilingualism and Literacy Development in Ghanaian Lower Primary Schools

As indicated in Chapter 1, literacy acquisition has been, over the years, the driving force behind mother-tongue language-in-education policy in Ghana. Perhaps, it may be one of the major reasons for the frequent oscillations between mother-tongue and English language-in-education policy from 1925 to present. "Teaching a child to read is every school's most basic mission. Reading is the new human right; for, without it, the right to education is meaningless" (Hartwell & Casely-Hayford, 2010: p.15)

Available data however suggests that only 26 % of pupils (i.e. approx. 1 out of 4 pupils) who reach Primary Class Six (P6) are actually literate in English (Leherr,

2009). In addition, findings based on the NALAP report indicated that the abysmal performance of students at the Basic Education Certificate Examination (BECE) can be traced to poor foundation in literacy skill (Ghana News Agency, 2010). This again may be traced to the choice of the medium of instruction at the lower primary level. Consequently, from 2002, the Government, in parliament, in conjunction with the Ministry of Education, passed a law that made it mandatory for lower primary school pupils to be instructed in mother-tongue, instead of in English. It was hoped that it would progressively improve literacy skills at the lower primary level, and subsequently support pupils' acquisition of English in their later years of schooling. In fact, most teachers and parents in Ghana perceive a successful academic performance in literacy as the ability to read and write in English or any other international language such as French, thus exempting the mother-tongue (Opoku-Amankwa & Brew-Hammond, 2011). This means that the usage of mother-tongue as medium of instruction for lower primary may not be a priority for most parents, and sometimes pupils. Also, Hartwell (2012) is of the view that there are other pertinent issues which affect a negatively successful performance in literacy of lower primary pupils. These include insufficient teaching and learning materials in mother-tongue, and insufficient teachers and the inability of teachers to teach effectively in both English and mother-tongue. The next section of the chapter presents the significance of Code-switching/Code-mixing in lower primary classrooms.

2.5 Code-switching/Code-mixing in the Lower Primary Classrooms

Code-switching/Code-mixing within a discourse is common in bilingual and multilingual classrooms. According to Jamshidi and Navehebrahim, (2013) Code-switching/Code-mixing involves a speaker moving from one language to another within a single discourse, sentence, or constituent. Similarly, Akindele and Adegbite, (2005) describe Code-switching/Code-mixing as communicative occurrences which involve bilingual speakers changing from one language to another. Code-switching/Code-mixing in the classroom can be categorized under what Wardhaugh, (2011) earlier referred to as 'situational'. It has been argued that classrooms that use English as a medium of instruction can present difficulties for pupils who have very

low command of the language, so will find portions of the lesson to be incomprehensible. Teachers therefore use Code-switching/Code-mixing as a strategy to assist pupils who may be visibly lost during lessons.

Willan (2011) supports the use of Code-switching/Code mixing as a resource strategy for teachers in the classroom. When teachers code-switch/code-mix, they are able explain and clarify points that pupils need to understand and bridge a gap that might have occurred in the interactions during the teaching and learning process. All these are done when teachers are visibly aware of a barrier in the interactions, so in order to facilitate a thorough comprehension of the contents of a lesson the teacher would Code-switch/Code-mix. Other studies have shown the usefulness of code-switching/code-mixing in bilingual and multilingual classrooms (Jingxia, 2010 & Adebola, 2011). Earlier findings from Cook, (2001) emphasised the usefulness and effectiveness of teacher-initiated code-switching especially when it is planned ahead of lessons. Cook (ibid) illustrates that teachers could, for example, explain a grammatical function in mother-tongue and apply that explanation in the target language, English. Modupeola, (2013), in addition, points out that Code-switching/Code-mixing is a very important tool for strengthening the teacher-pupil relationship because it creates a more relaxed environment for the pupils to easily understand lessons.

There are benefits of teacher-initiated Code-switching/Code mixing in the classroom. In a typical P.3 classroom in Ghana, a teacher would Code-switch/Code-mix from English to mother-tongue in order to accommodate pupils who have low language proficiency in English. To bridge the gap in vocabulary use for instance, a teacher may code-switch from English to mother-tongue. For example, the word “computer” which has no semantic equivalent in mother-tongue would compel a teacher to make a switch from mother-tongue to English.

2.6 Conclusion

Language teaching and learning methods have been greatly influenced by Second Language Learning Theories, especially, the Behaviourists and the Constructivists Theories. While Behaviourists propose that association, reinforcement, imitation, rewards and punishment are the basic factors that influence learning, Constructivists argue that all language learning processes originate from the social context. Relating this to the language classroom, teachers, and other stakeholders in the teaching and learning environment need to understand the underlying concepts in knowledge construction, and be able to envisage processes that learners go through so that learners' efforts can be supported with the most appropriate tools and techniques for language learning.

In addition, the chapter discusses the view that knowledge in one's mother-tongue enhances the learning process of English. The case has been made that pupils in bilingual/multilingual classrooms can easily transfer language skills from their mother-tongue into English. Also, based on the discussions in the chapter, Code Switching/Code-mixing support the teaching and learning process in bilingual and multilingual classrooms in several ways. Teachers, therefore, need to be made aware of this through training and other useful resources. This is one way to improve literacy in P.3 classrooms. The next chapter discusses some mother-tongue projects in Africa.

CHAPTER THREE

SELECTED MOTHER-TONGUE PROJECTS IN AFRICA

3.1 Introduction

This chapter discusses four mother-tongue projects in Africa. These are the Ife Project in Northern Nigeria, the Molteno project in South Africa, the KOM mother-tongue literacy project in Cameroon and the National Literacy Acceleration Programme (NALAP) project in Ghana. The backgrounds of these projects are presented by highlighting the objectives, and implementation procedures. The chapter concludes with a review of the major achievements, limitations and relevance of each of the projects.

3.2 The Ife Project in Southern Nigeria

In 1970, a mother-tongue Six-year longitudinal study, called the Ife project was launched in St. Stephen's Primary 'A' School, Modakeke in Ile-Ife township in Southern Nigeria. The main aim of the project was to prove the effectiveness of using mother-tongue – Yoruba – to help learners at the basic school level to develop literacy skills. Thus, primarily, reaffirming Bamgbose's, (2011a) argument that the cognitive development of learners is greatly enhanced if they are taught in a home language they are already familiar with. Apart from just developing the cognitive abilities of learners, mother-tongue education helps to “develop the learner's natural abilities by creating the necessary environment that will stimulate, challenge and involve the learner socially, physically, intellectually and emotionally in the art of learning and doing” (Fafunwa, 1970: 20).

The study initially involved 400 newly enrolled primary school children. The first selected group was asked to do a picture reading, and to translate what they had read from Yoruba to English. The second group was asked to do a picture reading and also translate what they had read from English to Yoruba, and the third group was asked to read and translate from Yoruba to Yoruba. At the end of this first experiment, those who read and translated from Yoruba to Yoruba outperformed the

other two groups. Eventually, the project decided on three sets of P.1 classes: Experimental Group A, Experimental Group B and Control Group C. Each group had between 30 – 40 pupils. The Experimental classes were taught in Yoruba, the main language of instruction, except English, which was taught as a subject or a Second language. The third group, the Control Group, was taught, using English as the medium of instruction, and was taught Yoruba as a subject. In addition, the study selected five subjects in the curriculum for the mother-tongue experiment: Science, Mathematics, Social and Cultural Studies, Yoruba and Language Arts and English as a Second Language. The same five subjects, except Yoruba, were taught in English for the Control Group. Teachers for both groups were specially trained and teaching and learning materials – teachers’ and pupils’ – for both the Experimental and the Control Groups were selectively designed and produced for the project. In order to facilitate the teaching of Yoruba in the Experimental Groups, local resource persons were recruited from the community to support classroom teachers.

By 1975, which marked the end of Primary Class Six (P.6) academic school year the pupils from both the Experimental Group and the Control Group sat for the same examination. Two of the assumptions of the project, which were that teaching pupils in their mother-tongue does not make them worse off as compared to those taught in the English language were confirmed by the outcome of the examination. This was evidenced when a comparison of the performance of both groups in the Yoruba language showed that the Experimental Groups did better than the Control Group although in some other subjects there were no statistically significant difference in their performance. Moreover, a significant number of the pupils in the Experimental Groups had admission to secondary schools, as compared to those in the Control Group (Dutcher & Tucker, 1996).

In addition, the six-year mother-tongue project showed that the use of mother-tongue in classroom instruction did not only improve the cognitive abilities – manipulative ability, manual dexterity and mechanical comprehension – of the pupils

in the Experimental Groups but had also developed their affective qualities – sense of maturity, tolerance and adaptability (Fafunwa, *et al.*, 1970).

In summary, the project dispelled notions that described the Nigerian languages as unsophisticated and rigid; thus, incapable of being used as media of instruction especially for scientific concepts and ideas. The project, as a result, made a strong case for a concerted effort in developing the indigenous African languages for teaching and learning – especially the development of materials for instruction and learning – not just for primary education but secondary education and beyond.

3.3 The Molteno Project in Southern African

The Molteno project, otherwise called Breakthrough to Literacy (BTL) and Bridge to English (BTE), is a British-based scheme initiated in the early seventies which sought to help young Southern African children to acquire literacy skills in their early years of education. With assistance from the Molteno brothers, the project was initiated in 1975 (Rodseth, 1978). The main aim of the project was to assist black learners and teachers to overcome literacy challenges. This was done, as Cummins (1978) suggested, by utilizing learners' home oral skills, Basic Interpersonal Communication Skills (BICS), as a basis for the first threshold that learners' need to develop, before attaining Cognitive Academic Language Proficiency Skills (CALPS). By reaching this threshold, as explained by Cummins (*ibid*), learners' would be able to build literacy skills across disciplines for effective academic work.

The curriculum of the Molteno Literacy Project was designed to use a mother-tongue as a foundation for learners from P.1 – P.3, and simultaneously support the mother-tongue lessons with English. Initial lessons were organised to support learners to recognize familiar words they used in their everyday oral language in print form. Thus, teachers used small-group, learner-centred and problem-solving techniques to build on what the learners already knew from home to what they were yet to know in the classroom. This progressed through to P.3. At this level, it was assumed that the learner literacy level in mother-tongue, and in English would provide balanced

literacy skills for learners. Kingwill, (1998) explains that the Bridge to English (BTE) component allows learners to acquire the needed foundation for English as a second language in their subsequent school years.

...our observation of schools that are opting for a straight English approach, where the learners are all unfamiliar with English, is that the process of literacy is being seriously hampered and children are simply not learning to read either in English or in the mother-tongue. (p.19).

The success of the BTL/BTE project, with its dual language approach to the teaching and learning process, is evident across the continent. The project, which was presumably one of the largest mother-tongue language and literacy project, quickly extended to about 21 countries in about 52 languages within the Southern Africa region. Some of the other countries which have successfully benefited from the Molteno project include Kenya, Lesotho, Uganda, Nigeria, Malawi, Ethiopia, Tanzania, Namibia and Ghana. The successes of the project in the Northern Province in Zambia indicated a significant progress in the literacy abilities of pupils who were part of the project as compared to those who were not. (Eakle & Garber, 2003).

In Ghana, the implementation of BTL/BTE pilot project at the lower primary schools was unexpectedly effective. This is against the background that, Ghanaian children grow as illiterates in their own languages as well as in the English language UNESCO (2008). The successes recorded could be due to the varied teaching and learning materials, development of well-structured language guides and interactive learner-centred approach that teachers were required to use in the classrooms (Lipson & Wixson, 2003). The success of the project could also be attributed to the in-service training courses that teachers received on regular basis.

This was supported by effective monitoring and evaluation of the teaching and learning process.

... there was strong evidence of the impact of the BTL program on the classroom environment. 'Talking walls' were evident in almost all classrooms. Print-rich environments, with the benches organized for group work were in sharp contrast to the BTL non-pilot classrooms, which reflected a more traditional environment. In these non-pilot classrooms there were typically virtually no reading and writing materials visible on the walls or being used by children".
(Lipson & Wixson, 2003: 4)

The success stories of the BTL/BTE project were a confirmation that when the learner is placed in the right environment, provided with adequate teaching and learning materials, the possibility of that learner's literacy achievement is likely to prove Cummins', (1978) conviction that "there may be a threshold level of linguistic competence which a bilingual child must attain, in both languages, in order to avoid cognitive deficits, and allow the potentially beneficial aspects of becoming bilingual to influence his cognitive growth" (p.10).

The achievement of the project is also proven by its simultaneous implementation in many languages in over 50 African languages, including those in West Africa. It also created awareness for mother-tongue education in the achievement of literacy skills in early years of schooling. However, the greatest strength of the BTL/BTE project was that it seemed to have enhanced the creation of a learner-friendly environment through the teaching and learning materials provided. The provision of teacher guides and modules for in-service training for the BTL/BTE project also allowed quality teaching practices for early-grade literacy acquisition.

3.4 The National Literacy Acceleration Programme (NALAP), Ghana

The NALAP initiative was a major mainstream mother-tongue literacy intervention project in Ghana. In 2004, the Ghana Education Service, with support from United States Agency for International Development (USAID) adopted the Break Through to Literacy and Bridge to English (BTL/BTE) South African bilingual early grade language and literacy project. It was a pilot project which was used to support earlier research findings of using a bilingual approach to improve early-grade literacy (Lipson *et al.*, 2004). In June, 2006, the Ministry of Education, in collaboration with the government of Ghana, realised that it was not feasible to extend the Break Through to Literacy and Bridge to English (BTL/BTE) project, a solely South African project, to cover all basic schools across the country. A series of debates, with the USAID, as the funding partners, culminated into the formation of a National Literacy Task Force (NLTF) to formally establish the NALAP. The mandate of the NALAP was to provide an Early Exit Bilingual transitional literacy education to pupils from KG1 to P.3. Secondly, it set out to promote and develop teaching and learning materials.

To support this initiative, the following 11 languages were identified for use as medium of instruction from KG1- P.3: Ga, Dangme, Gonja Dagaare, Kasem, Dagbani, Asante Twi, Akuapim Twi, Fante, Ewe and Nzema (Ministry of Education, 2004). These eleven languages had been selected on regional basis, but the District Director of Education in every district had the mandate to do a survey on the language situation in the district and take a decision on which language was dominant for use in the schools in the districts. With support from USAID and the Government of Ghana, text-books, teacher guides and other teaching and learning materials were produced in all the eleven languages listed and distributed in all primary schools across the country. Finally, all teachers on the programme received adequate training in line with the 2007 National Language Policy directives of the Ministry of Education (MOE), and the Ghana Education Service (GES) (Ministry of Education 2004).

To restate the language-in-education policy, a Ghanaian language is to be used as the medium of instruction from the reception classes of Kindergarten to class three level (P.1-P.3) and transition to English as a Second Language medium of instruction from Class Four (P.4) onwards (Ministry of Education, 2007). When pupils attain the threshold, and maintain a balance between the Ghanaian language (mother-tongue) and the English language, additive bilingualism occurs and this improves literacy skills of pupils.

The scope and implementation of the NALAP covered a period of five years. The programme was designed to cover three main areas, namely: the distribution and use of instructional materials and teachers' guides for KG1 – P.3 in 11 Ghanaian languages. Another important aspect was that apart from making Ghanaian language a compulsory subject on the curriculum for all colleges of education in the country, in-service training was given to teachers, head teachers and district officers at post. In addition, all teachers were oriented on the NALAP approach and the use of the NALAP teaching and learning materials. The third stage of the programme was to organise a public advocacy campaign to create awareness and education on the bilingual approach to literacy. The design included a monitoring and programme evaluation component which never materialized probably because the implementation of NALAP was somehow abruptly ended. (Hartwell & Casely-Hayford, 2010)

The NALAP methodology and materials development was based on the constructivists' view of language learning, by drawing on pupils' cultural way of life, their existing experiences, knowledge and interests. With this approach, lessons were learner-centred, and were highly interactive. Through the initiative of NALAP, the Ghanaian language and the English language periods in KG1 – P.3 was merged into one Literacy period of 90 minutes. During this literacy period, the teacher in a KG1 – P.3 should teach both Ghanaian language and English. The 90 minute Literacy period was initially divided unequally between the Ghanaian language and

English, with English periods having their duration increasing at each level, while the Ghanaian language period duration decreased until the Literacy period was evenly distributed at P.3. This was so to confirm that pupils had henceforth reached a threshold to effectively transition into a P.4 English medium of instruction class. It also provided pupils with more Additive Bilingualism and less Subtractive Bilingualism (Cummins, 2001).

The initial assessment of NALAP showed success in achieving most of the objectives set out by the programme. The first of these was the provision of teaching and learning materials in the government approved 11 Ghanaian languages, although some delays in the distribution of the materials were recorded. Moreover, the programme was able to add 3 more Ghanaian languages to the previous 9 Ghanaian languages used in earlier mother-tongue projects. The programme, through a survey, was able to determine teacher capacity to teach mother-tongue in all KG1 – P.3 schools across the country. In addition, the project sought approval from GES to combine the Ghanaian language with the English language class into a 90 minute Literacy class. Finally, the project raised some initial awareness on the benefits of mother-tongue education through public advocacy campaign.

3.5 The Kom Mother-tongue Project in Cameroon

The Kom mother-tongue project, an on-going experimental programme for multilingual education began in the Boyo Division of the English North Western Cameroon. The programme started in 2007 and its main aim was to promote mother-tongue medium of instruction from P.1 to P.3, and then continue to P.6. Similar to the Ife project in Southern Nigeria, the project selected 12 experimental schools, and 12 matching control schools in the same Boyo Division of North Western Cameroon. The significant feature of the project is a change in the language of instruction from the start of school in P.1 to P.3. The schools in the Experimental Group are taught in the local language, Kom, from P.1 to P.3 in all subjects except English Language which is taught as a subject in English. At the end of P.3, all the pupils in the Experimental Classes are transitioned to an all English medium of instruction P.4

class. The 12 control schools are however taught in English from P.1 through to P.4 in all subjects. The main literacy curriculum of the project is integrated skills which comprise 'read alouds' for reading comprehension, phonics to teach decoding and questioning strategies to enhance comprehension skills.

Visits for class observation revealed a contrasting view of the two groups. The learning atmosphere of the Experimental Classes was described as exciting as children demonstrated their literacy abilities and competed to answer questions. In contrast, pupils in the English-medium Control Group seemed to be unusually: "quiet, hesitant, and unwilling to participate actively in lessons. In these classrooms, one observed a heavy reliance on teacher-centred instructional materials. Pupils relied heavily on chorus responses with hardly any effective classroom interactions" (Walter & Chuo, 2012: 5).

The Kom mother-tongue literacy programme has a continuous assessment component for both the Experimental and Control Classes. These tests were specifically developed in the language of instruction for the two sets of groups. The tests for the Experimental Group were developed in the language of instruction, the local Kom language, and the tests for the Control Group were designed in their language of instruction, exclusively in English. The content for all the tests were based directly on the curriculum, and the instructional materials for the teaching and learning process. Test items, especially for oral and reading comprehension passages were highly comparable for both sets of groups.

To ensure reliability of test results, all tests were supervised by non-school personnel. The most recent documented test results of the programme after a period of 5 years continue to indicate that the use of mother-tongue in the 12 Experimental Classes have shown an improved achievement in literacy skills especially in P.1 through to P.3. This improvement however seemed to have reduced dramatically when the pupils made a transit to an all English medium of instruction in P.4.

According to the project coordinators,

...the results during the first three years of the Kom Education Project (KEP) showed a marked—even strong advantage in educational achievement for the children in the experimental program. Measured improvements in all learning outcomes except oral English were dramatic—as much as 600 percent in some cases with 100 percent gains being typical. In the case of oral English, the children in the experimental program also outperformed the children in the standard English-medium program but by much smaller amounts ranging from 5 to 35 percent depending on the class. Even this small advantage was contrary to prevailing public expectation that the best way for children to learn and improve their English was to be immersed in an all-English instructional environment (Walter & Chuo, 2012:3).

The major achievement for the Kom project is that it is a major step for mother-tongue education in a multilingual community, bearing in mind that Cameroon with a population of about 5 million has about 280 different languages. The Kom mother-tongue literacy project is still on-going and it is hoped that its objective of expanding the project to cover the whole country in the near future will be realized.

3.6 Conclusion

There is ample empirical evidence as indicated in the selected projects that pupils' mother-tongue acquisition in the early years of their schooling is important for their cognitive development and literacy achievement. Secondly, a systematic mother-tongue programme in early school years should serve as a foundation for a second-language acquisition in subsequent years of schooling. Each of the four mother-tongue projects, with the exception of the Ife project, which was a Six-year programme from P.1 – P.6, was initially planned from P.1 – P.3. This means that the BTL/BTE, the NALAP and the Kom project, favoured the Early Exit Model. The Kom project however is still on-going to investigate pupils' academic achievement from P.4 when pupils continue with English medium of instruction. Even though pupils showed a strong foundation in literacy skills by P.3, in the Early Exit programmes, existing research seem to suggest that three years of mother-tongue education –

Early Exit Model, is not adequate to sustain pupils' literacy skills in both their mother-tongues, BICS, and a second language for an effective development of CALPS (Hornberger, 2002; Ball, 2011; Walter & Chuo, 2012).

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter discusses the research design and paradigms, methodology of the research, the selection of research participants and the sites for the research. It further provides detailed rationalisation for the data collection procedures, data collection instruments, and explanation of the procedures for analysis.

4.2 Research Design

Burns and Bush, (2016) describe a research design as a methodical and procedural approach for collecting and analysing needed information in a decision-making plan. Thus, a research design expressly describes the steps taken in the selection of research participants, the collection and analysis of relevant data, and efforts that find answers to the research questions of the study. Three elements of inquiry (i.e., knowledge claims, strategies, and methods) are used in determining a suitable research design. This involves an assessment of the knowledge claims, the strategies of inquiry, and an identification of specific methods which lead a researcher into determining a suitable approach to inquiry. This approach to inquiry may either be solely quantitative, qualitative, or a blend of the two methods known as mixed methods (Creswell & Clark, 2003; Johnson & Onwuegbuzie, 2004; Creswell, 2013)

4.3 Research paradigm and Methodology

Research paradigms define and guide the framework of a research (Ponterotto, 2006). Research paradigms such as positivism, postpositivism, constructivism-interpretivism and the critical-ideological perspective are largely defined as the principles or theories guiding the way things are done. According to Maxwell, (2008) a paradigm is “a set of very general philosophical assumptions about the nature of the world (ontology and how we can understand it (epistemology), assumptions that tend to be shared by researchers working in a specific field or tradition” (p. 224).

This research is situated within the framework of positivism and the constructivism-interpretivism, thereby adopting these paradigms as guiding principles in a mixed methods approach. Brief discussions of the paradigms, structure of inquiry, and choice of methodology for this research are presented in the ensuing sections.

4.3.1 Positivism

An overview of research paradigms by Ponterotto, (2006) describes positivism as a philosophical realism that adheres closely to the hypothetico–deductive method. Drawing inference from earlier studies by Guba and Lincoln, (1994) and McGrath and Johnson, (2003), Ponterotto, (2006) argues that positivists focus on efforts to verify a priori- hypotheses mostly stated in quantitative propositions. He further suggests that the primary goal of positivistic inquiry is an explanation that (ultimately) leads to prediction and control of phenomena, with the conversion of quantitative prepositions to mathematical formulas that express functional relationships.

4.3.2 Constructivism

Johnson and Onwuegbuzie, (2004) saw constructivism as a theory based on scientific study and observation. They proposed that people create an understanding and knowledge of the world around them based on their individual experiences and reflections. Constructivists hold that individuals construct their reality in the mind, thus suggesting deep reflection as a means of bringing hidden meaning to the surface. The stimulation of deep reflection, according to Ponterotto, (2006), is by the interaction between the researcher and the research participant. This shows a link between constructivists and qualitative research.

Johnson and Onwuegbuzie, (2004) again suggest that qualitative research aims at engaging and probing to gain a rich understanding of a research phenomenon, and constructivism facilitates this aim. The constructivism paradigm views knowledge as “socially constructed and may change depending on the circumstances,” describing it as both knowledge and meaningful reality contingent upon human practices constructed in and out of human interaction with their world (Golafshani, 2003:603).

Another distinguishing characteristic of constructivism is the centrality of the interaction between the investigator and the object of investigation (Johnson & Onwuegbuzie, 2004). Constructivism therefore adheres to a relativist position that assumes multiple, apprehendable, and equally valid realities (Ponterotto, 2006).

3.3 Research Methodology

A Research methodology is a procedure that outlines the systematic, factual demonstration, of an attempt to answer a question or find resolution to a problem. It is also a way of obtaining, organising and analysing data (Polit & Beck, 2004; Leedy & Ormrod, 2015). In other words, research presents “a careful, systematic, patient study; and investigation in some field of knowledge, undertaken to establish facts or principles” (Richard, 1993: 4). This could be done using qualitative and quantitative methods. The research, significantly, blends the two methods – mixed methods, and explains its relevance.

The mixed method approach emerged out of the two major paradigms of positivism and constructivism discussed above. This approach seeks to redenominate research methods. A mixed method approach, according to Creswell and Clark, (2003), “involves a collection or an analysis of both quantitative and/or qualitative data in a single study.” (p. 212). Johnson and Onwuegbuzie, (2004) also state that a mixed research is a method that allows the researcher:

“to mix or combine quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study. It further explains that a mixed method research attempts to legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers’ choices. ...it is inclusive, pluralistic, and complimentary, and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research” (p. 17-18).

Creswell (ibid) further clarifies that mixed methods is understood by using the term:

“methods” and “methodology.” The methods, he explains involves the procedures or the steps taken to conduct the research while methodology refers to the philosophical assumptions that underpin the study. This research is guided by the above definitions of mixed methods.

Mixed methods research, according to Creswell and Clark, (2003) and Punch, (2013) has been in practice and widely accepted as a research paradigm in the last decade. The approach, according to these writers make use of either a quantitative or qualitative research method which falls short of the major approaches employed in today’s social and human sciences. Creswell, (2009) further suggests that for the mixed methods researcher, “pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as to different forms of data collection and analysis in the mixed methods study” (p. 12).

Another description of mixed methodology put forward by Wisdom and Creswell, (2013) describe it as a methodological study that offer great potentials to the researcher, strengthening the rigor and enriching the analysis and findings of the study. The advantages of mixed methodology according to them include allowing for the comparison of quantitative and qualitative data, reflecting participants’ point of view, fostering scholarly interaction, providing methodological flexibility, and collecting rich, comprehensive data.

This research is also guided by Greene and Caracelli's, (1997) classification of mixed methods. Greene and Caracelli, (1997) identify three typical uses of mixed methods study: (1) testing the agreement of findings obtained from different measuring instruments, (2) clarifying and building on the results of one method with another method, and (3) demonstrating how the results from one method can impact subsequent methods or inferences drawn from the results.

Aptly, as mentioned earlier, this research was a fact-finding one, which sought to methodically, assess the choice of medium of instruction on the academic

achievement of P.3 pupils in literacy. The research first assessed the influence of the language primarily spoken in the community and the teachers' mother-tongue on the choice of language for instruction in the classroom. Then, based on the findings, the research assessed how the language chosen by the teacher as MoI impacted on pupils' academic performance in literacy.

4.3.4 Action Research

The research involves a classroom activity and so it is to a large extent an action research. Action research, as explained by Little and Rawlison (2004), allows teachers and educators to learn and investigate the teaching and learning process in their classrooms, while they continue to monitor and improve performance levels of their pupils. Guskey (2000), further points out that issues relating to education are best investigated in the classroom. The significance of this to the research, in the light of the above, is that the phenomenon under study occurs in the P.3. The teachers' choice of language for instruction in the classroom is an important component in the teaching and learning process. It therefore plays a significant role in the academic development and performance of pupils from the early years of their education. Also, primary data collected for this research is taken directly from everyday classroom activity of the selected schools.

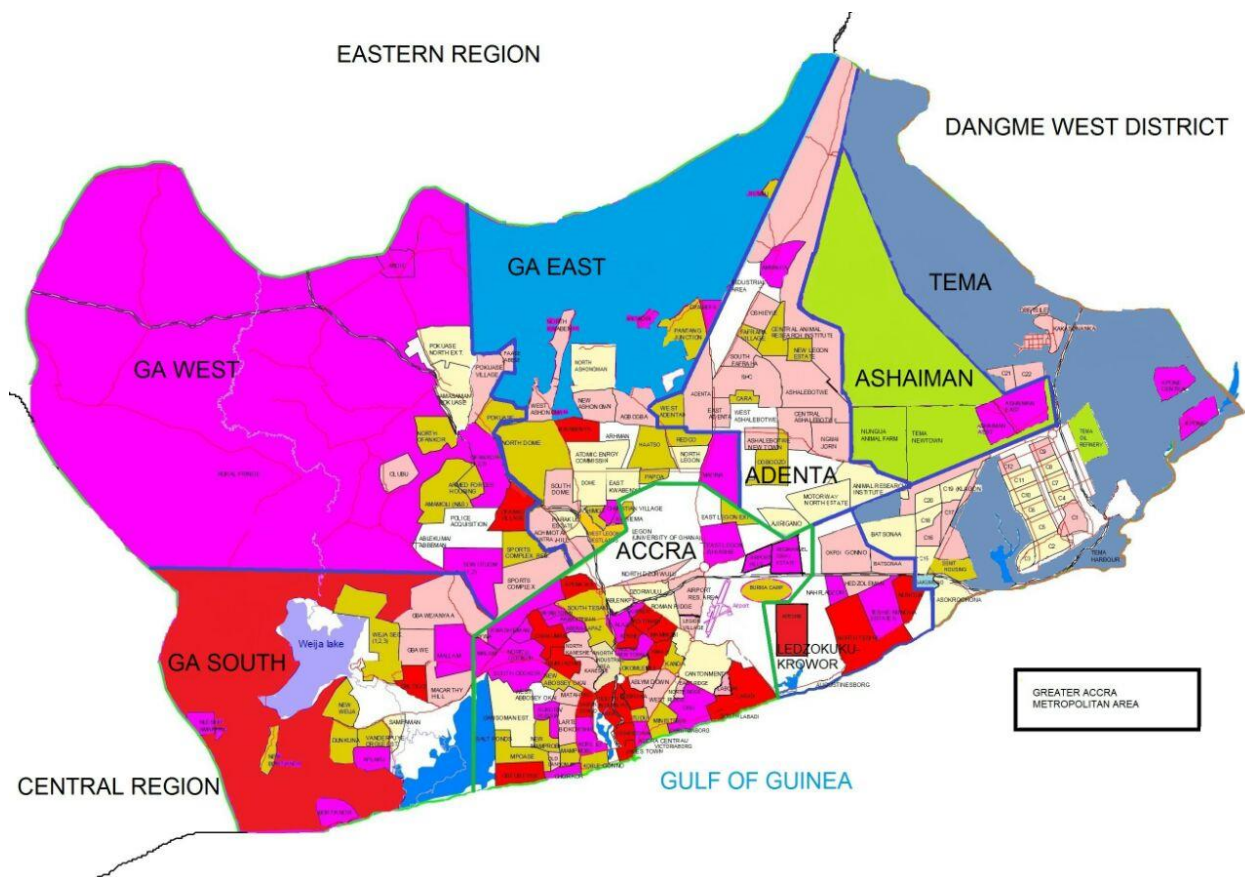
4.3.5 Case Study

A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 1994). As a case study, the focus will be on specific issues, with first-hand information on the implementation of the policy in the

classroom. Simply put, a case study can be described as an in-depth description and analysis of a particular entity that can be used as a generalization for others.

4.3.6 Research Sites

Figure 6: Research Sites



Source: Google map sites, (2017)

The research was conducted in the Greater Accra Region of Ghana in West Africa. The Greater Accra region of Ghana is situated along the southern coast of Ghana with Accra as both the regional and the national capital. The traditional name of the area is Ga and the language of the local people is also Ga. The Greater Accra region, the political seat of government and trade centre, attracted a large number of settlers and immigrants who came from diverse language backgrounds from across the country and beyond. Out of these language groups, Akans outnumber the Ga local settlers in the Greater Accra region by a considerable margin (Anyidoho & Kropp-Dakubu, 2008). Thus, the cosmopolitan nature of Accra is one major contributing

factor for the linguistic diversity of the area. In fact, all the eleven government approved languages to be used as medium of instruction in the schools are spoken in all parts of the Greater Accra region. Most people in the Greater Accra region are multilingual with Akan as the most widely spoken language across all levels. There are 10 districts in the Greater region of Ghana and each district has a number of public and private schools. The 8 schools selected for the research were purposively selected from three geographical areas of the region – Ga South, Ga East and Accra Metropolis, as indicated in the map above.

4.3.5 Research Participants and Sampling

The main aim of conducting a primary research is to unearth a new phenomenon that can be confirmed by others (Cohen, Manion & Morrison, 2013). This research uniquely assesses the relationship between the choice of medium of instruction and pupils' academic performance in literacy. The primary participants for the research are P.3 pupils, their teachers and Head teachers of the selected schools. The selection of participants was done using purposive sampling technique.

De Vos *et al.*, (2011) describe a sample as a representation of a whole, carefully selected to ensure its representativeness. The most basic considerations in sampling are size and representativeness. They further suggest that the choice of a sample size can influence statistical test, as such, the selection of a well-representative sample of a population should consider the relative homogeneity or heterogeneity of the population, as well as degree of reliability desired by the researcher. The reason of purposive sampling for this research was to get only participants who will be able to provide the needed information. (Dawson, 2007). Creswell, (2007) also explains that purposive sampling selects only individuals and locations that are of relevance to a study. To support this, Teddlie and Tashakkori, (2003) further state that the individuals selected should have certain specific attributes and representative of the population relevant to a particular situation.

In line with the objectives and the research questions, the researcher selected 5 public schools from the urban, 2 from peri-urban and 1 rural geographical zones within the Accra Metropolis, Ga South and Ga East Municipality. The schools selected in the urban setting were presumed to be well-resourced, with better facilities, and more qualified teachers. The peri-urban schools selected were not in the inner metropolis but are on the fringes of the city. These schools were selected to represent settlements that were less populated than schools in the city, but the infrastructure of these schools were equally good. The teachers were also trained and teaching and learning facilities were presumed to be satisfactory.

Schools selected from the rural areas did not have the same facilities in terms of basic infrastructure as those in urban and peri-urban schools. Teacher posting to these rural schools were also not consistent. The roads to these schools were not well constructed and some teachers had to trek for hours. Sometimes the cost of transportation to the school was so high that teachers were not able to attend school daily. In addition, teacher ratio to pupils was very low, so it was common to find one teacher teaching more than one class. For instance, the P.3 teacher in Adenkrebi, one of the rural schools selected, in the Ga East Municipality, taught both P.2 and P.3, and for convenience had decided to combine the two classes for all lessons. Apart from the linguistic differences of the selected schools, the choice of these schools reflected the disparities prevailing in the settings of these schools. How these conditions affected the teaching and learning process was therefore relevant to the overall goal of the research.

The first category of participants as stated were P.3 pupils from the selected schools. Their selection was based on the main objective of the research which was to find out whether P.3 pupils have attained the desired literacy levels based on the choice of Mol. The second category of participants was P.3 class teachers and lower primary Head teachers of the selected schools. Since KG1 – P.3 teachers are the key promoters of the language-in-education policy in the classrooms, inputs from this category of participants helped answer specific research questions.

The next section discusses the data collection instruments and procedure.

4.3.6 Data Collection Instruments and Procedure

This section of the research explains the data collection instruments and procedure. The instruments for the research were semi-structured interviews, participant's observations, including video recordings, and diagnostic tests. Zohrabi, (2013) sees interviews as the predominant mode of data or information collection in mixed methodology research that affords both researcher and participant flexibility. Similar to views from Atkinson, Bauer and Gaskell, (2000) and Broom, (2005), interviews offer the researcher an opportunity to probe issues of interest that emerge in the interview. On the whole, interviews bring dynamism in the data collection process that richly enhances the contexts and particular situations being investigated (Holstein and Gubrium, 1995). Similar assertion is made by Fontana and Frey, (1994) regarding interviews, viewing the data collection mechanism as non-neutral, yet vigorous interactions between the researcher and research subject(s).

Semi-structured interviews are especially “suitable where one is particularly interested in complexity or process, or where an issue is controversial or personal” (Smith et.al., 1995: 10). The semi-structured interview used for the research were in three main parts. Part one comprised the language background of both pupils and teachers. Part two, which was designed solely for teachers, had information on knowledge of the language-in-education policy, and part three had information for both teachers and pupils on language choices and preferences for medium of instruction.

The semi-structured interviews afforded the researcher to have a set of predetermined questions on an interview schedule that guided the researcher to conduct the interviews. Gill *et al.*, (2008) are of the view that semi structured interviews enhance the participation of research subjects, by eliciting more information that can subsequently boost the richness of data collected through the introduction of an issue the researcher might not have considered relevant.

The choice of a semi-structured interview assisted the researcher to gain a detailed understanding of the language use of P.3 teachers and pupils. The process also helped gain a clearer picture of the teachers' perceptions of the language-in-education policy in Ghana. Finally, the choice of the semi-structured interview allowed the researcher to get full information on the linguistic composition of the pupils, and teachers' ability to teach in a selected mother-tongue. The interviews were conducted face-to-face using a one-on-one technique.

The second data collection instrument was the classroom observation. The researcher adopted an overt, participant's observation approach. This approach, according to Dawson, (2007) & Turnock and Gibson, (2001), enhances the value of the study and makes the mixed method inquiry much rewarding. The classroom observation guide was therefore designed to enable the researcher gain an insight into the key issues underpinning language and literacy acquisition in the early years of education. The observational guide was designed to help ascertain how certain factors including the choice of Mol could affect the teaching and learning process and subsequently the academic performance of the pupils.

Thus, as part of the observation procedure, classroom environment and lesson information provided a description of the class size, desk arrangement, sitting pattern of pupils and the availability of teaching and learning materials. This forms an important aspect of a successful teaching and learning process. As rightly observed by Stigler and Hiebert, (2009), in the absence of supplementary Teaching and Learning Materials (TLMPs), the attention of learners are likely to be diverted from the more important goals of learning. Additionally, Jun Zhang, (2001) states that insufficient TLMPs, and exposure to inadequate vocabulary, may ultimately negatively affect pupils' academic performance in literacy.

Mensah, (2000) also suggests that teachers see regular in-service training as a necessary tool for improving their performance and delivery, especially in lower

primary classrooms. Furthermore, Rivkin, Hanushek and Kain, (2005) highlight the importance of teacher effectiveness in the academic performance of pupils. As such, teacher professionalism was considered an important part of the observation process because it provided a better understanding of how the teachers were able to project themselves in appearance, control of the lessons and their management of the literacy periods.

Mensah, (2000), in his study, further explains that the use of a familiar Ghanaian language, as medium of instruction promotes effective interaction between the teacher and pupils. Thus, the teacher's competence in the classroom was assessed based on their ability to engage learners in active participation during lessons, present lessons in a logical and organised manner, incorporate activities that enhanced pupils' performance, and ability to use activities, tests, reviews, or applications that focused on learners' demonstration of what was learned. The next session discusses Ethical Considerations of the study.

4.4 Ethical Considerations

This research adopts the stance that ethics, a set of moral principles, deal with what ought to be (Strydom, Fouche & Delport, 2002). Ethics require the researcher to "strike a delicate balance between the scientific requirements of methodology and the human rights and values potentially threatened by the research" (Creswell, 2013: p 20). As such, ethical issues were addressed at each phase of the research. In line with the research and ethics committee of the University of Venda, the researcher applied for ethical clearance and was granted permission to collect data involving 293 minors. Permission was sought from parents through the Parent/Teacher Association (PTA) for interview with pupils using an informed consent form (see Appendix C2). The other subjects of the research involved adults. The Circuit Supervisors, Head Teachers and teachers, parents and Community leaders and other stakeholders in education, at the Metropolitan Assembly of the Ghana Education Service, were also verbally informed. The purpose of the research was clearly spelt out and their consent was sought at each stage of the data collection

procedure. In addition, permission for conducting the research in the 8 selected schools was obtained from the Director of Curriculum and Research and Development Division (CRDD) of the Ghana Education Service (see Appendix C & C1).

All participants, including pupils' identities were protected by an anonymity clause – the avoidance of the use of names and labels. Interviews, involving participants, were numerically coded to maintain confidentiality. In brief, the right, dignity, autonomy and the human space of all subjects involved in the research were given the utmost consideration.

4.5 Reliability and Validity

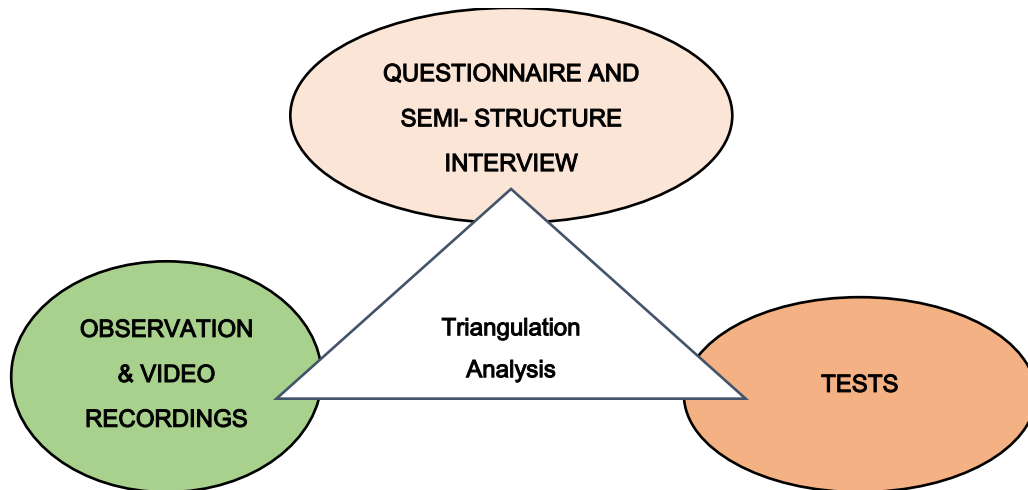
Reliability is a prerequisite for validity. An unreliable indicator cannot produce trustworthy results. Reliability is concerned with the findings of a research and this relates to the credibility of the findings (Welman, *et al.*, 2006). In order to ensure reliability in this research, appropriate research methodology was employed. Thus, where observations were carried out, the researcher took notes and revised them to check whether or not there was a mismatch between the initial documentation from the survey and the final findings of the research. Flick, (2009) explains that the quality of responses and documented data become a central basis for assessing reliability and that of succeeding interpretation. In this regard, the researcher ensured reliability by testing the degree to which all the variables used in the research yielded consistent results. Also, even though some researchers, Lincoln and Guba, (1985); Gubrium and Holstein, (1997) and Lewis and Ritchie, (2003), have their reservations about replicability of research findings, it can be argued to very large extent, that the results of this research, using similar methods could be replicated.

According to Cohen *et al.*, (2010), validity is the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. A method can be reliable, consistently measuring the same thing, but not

valid. However, generally accepted research process, design, and concepts were adopted to maintain the validity of the study. Hammersley, (1992: 69) observed that “an account is valid if it represents accurately, those features of the phenomenon that it is intended to describe, explain or theorise.” Since it is difficult to ascertain a 100% validity for the study, the researcher sometimes supported responses from one data with another. For instance, the responses from the semi-structured interviews were verified with what was recorded from the video recordings and the participants’ observations. The researcher therefore validated the study by ensuring that the study’s findings falls within the purview of empirical literature. Thus the process of guaranteeing validity and reliability in this study served as an attempt to “act sensitively in the field” (Flick, 2009: p.486).

Triangulation is used as a means to validate data through cross-checking (Silverman, 2001). According to Denzin, (2007) triangulation is very likely to enhance both internal and external validity of data. With this concept of data triangulation, the research uses data based on two variables: the choice of medium of instruction against pupils’ academic performance in literacy in P.3. Different methods of data collection were used in order to arrive at more convincing results. Data collected through semi-structured interviews, observations and video recordings and diagnostic tests were analysed separately and triangulated. Another value of triangulating the data for the research, as stated by Lewis and Ritchie, (2003), is to enable the findings of the research to be generalised to a larger population. In all, 8 schools were selected from the Greater Accra region of Ghana for the research. Even though only P.3 classes were chosen from the 8 schools, the language-in-education policy implementation and the curriculum design were the same for all lower primary schools across the country. Therefore, in line with Denzin, (2007) the possibility of generalising and diversifying the outcome of the results of the research is high.

Figure 7: The concept of data triangulation



The next section of the chapter discusses video recording as a data collection tool for study

4.6 Video Recording



To enrich the discussions, during the classroom observation, the Language and Literacy lessons for each of the 8 selected schools were video-recorded, by a professional cameraman. This was assisted with a second camera by the researcher.

The focus of the video-recording of the lessons was to have a thorough understanding of the teaching and learning process: what the teachers and pupils did and said in communicating with, or interacting with each other, in order to make the content of the lessons explicit. To support this, Winters, (1996) explained that video recordings of lessons provides an objective record for transcribing or repeatedly previewing, and thereby enhancing the data analysis process.

As stated in the section on Ethical considerations, class teachers and head teachers were informed verbally about recording lessons, and this was supported by the letter of consent to parents. The researcher and her assistant, and cameraman were all introduced to the class before the start of the observation. In addition, the researcher documented the teacher's teaching and learning materials and lesson notes (see Appendix B2). In order to be part of the lesson, the researcher sat behind the class and was allowed to participate in the lessons. Thus, the researcher asked questions, or contributed to explanations when needed. With this approach, all aspects of the lessons were fully captured and documented.

4.7 Diagnostic Test

Testing as a method of data collection is not only convenient for research but was also seen as effective in assessing learners' academic performance before, during and after lessons (Tomal, 2010). Since the main objective of the research is to assess pupils' academic performance in literacy, testing was selected as one of the data collection instruments. The diagnostic tests were based on the Ghana Education Service's Standards and Milestones (2007) assessment criteria for literacy achievement in P.3. The tests were developed from the curriculum for literacy in P.3, teachers' lesson notes, and the teaching and learning materials used for the literacy lessons. For each of the selected schools,

pupils were tested on English literacy skills. Phonemic awareness, Phonics, Vocabulary, Reading comprehension and Writing. The importance of the diagnostic test was to establish P.3 pupils' academic performance in literacy achievement based on the choice of Mol. Above all, the test results was to give an indication of whether P.3 pupils had reached the academic threshold for literacy to successfully transition into an English language medium of instruction at P4.

4.8 Conclusion

The chapter primarily stated the entire research process for the research. The chapter further discussed the research design, methodology and presented an explanation of the ethical considerations of the research. The chapter closed with a discussion of the data collection instruments and the measures employed to establish data validity and reliability. The next chapter presents data analysis and discussion.

DATA PRESENTATION, ANALYSIS AND DISCUSSION

5. Introduction

This chapter presents and analyses the data for the research. In addition, the chapter discusses findings of the analysis of the data. The analysis of the data were based on semi-structured interviews, participant's observations video recordings and diagnostic tests which were linked to the objectives of the research. The first section of the chapter is a demographic profile of the sample group selected. The section also presents the first theme for the analysis.

5.1 Demographic Profile of Respondents

Table 2: Demographic Profile of Respondents

Variable		Number of pupils	Percent (%)
Gender	Male	152	51.88
	Female	141	48.12
	Total	293	100
Age	8 - 10yrs	219	74.74
	11 - 13yrs	67	22.87
	Above 13yrs	7	2.39
	Total	293	100
Languages spoken	Ga	129	44.02
	Fante	27	9.22
	Asante Twi	44	17.41
	Akuapem Twi	31	12.63
	Ewe	27	10.24
	*Others	15	6.48
	Total	293	100

*Dagbani, Gurune, Nzema, Krobo, Dangme Nkonya, Logba, Kasem

Table 2 above shows that the data covered 293 pupils. The total number of male pupils surveyed was 152, representing 51.88%, and 141 of them were female pupils representing 48.12% of the total. The difference of 3.76% may be considered insignificant, hence results above indicate a balanced representation



of gender. The age distribution of the participants also shows that 74.74% of the pupils were within the ages of 8 to 10 years while 22.87% were within the ages of 11 to 13 years. It is clear that majority of the pupils surveyed were above age 8. Based on the Ghana Education Service approved ages, KG1 – 4 years; KG2 – 5 years; P1 – 6 years; P2 – 7 years; P3. – 8 years. This shows that majority of the pupils surveyed were above age 8. Some studies arrived at different conclusions concerning the age of pupils and their academic performance at the basic level. According to Smith and Shepard, (1988) and Crosser, (1991) pupils who are older would perform better academically. However, recent findings by Warash and Markstrom, (2001) and Lincove and Painter, (2006), show that pupils below age 8 would presumably perform better than older children in early years of school. In conclusion, it is presumed that the ages of pupils selected for the research should not necessarily have a major significant impact on their academic performance in literacy. The next presents the first theme presents the first theme of the analysis.

5.2 Theme 1: English Medium of Instruction to some Extent Supports Pupils' Academic Performance in Literacy

One of the research objectives was to assess the extent to which an English language medium of instruction supports pupils' academic performance in literacy. Results from participant's observation, video recordings and the diagnostic tests conducted in English for pupils were utilized in achieving this objective. Out of the 8 schools surveyed, English language was identified as the most dominant medium of instruction in five (5) of the schools. Three (3) of the schools surveyed used Ga as medium of instruction. The details of these are discussed further in the chapter.

The participants' observation process was accompanied with video recordings in each of the selected P.3 classrooms. During the participants' class observation sessions, it was noted that the presence of the researcher compelled teachers to demonstrate a high sense of commitment in teaching their lessons. The teachers, in the 5 schools (which used an English Mol), used English for all the lessons observed, and the researcher also noted that the lessons were not very interactive. The researcher equally observed that pupils' level of proficiency in English was not adequate, so the lessons were not interactive. In addition, when

it came to question time, the researcher noticed that pupils struggled to provide responses to questions in English. In some cases, pupils solicited for answers from their peers, which gave the impression that the lessons were not well comprehended. These findings are supported with the results from pupils' interviews presented below.

A significant number (55.4%) of the pupils interviewed mentioned that they were least proficient in English, so could barely understand the lessons that were taught in English. In addition, 71.3 % of the teachers interviewed admitted that they had to repeat portions of the lesson several times for pupils to get a clearer understanding of the lessons. One teacher specifically stated that *"I just move on with the lesson, because I have a syllabus to complete."* Again, the outcome of pupils' performance in the language and literacy tests, were not encouraging. The table below presents pupils' performance in a reading comprehension test in English conducted in all the 5 classes that used English medium of instruction (See appendices A3 – A6)

Table 3: Percentage Distribution on Comprehension Test (English: see Appendix A5 & A6)

	Correct (%)	Incorrect (%)	Not attempted (%)
Where does Louba live?	83.00	16.60	0.79
In which part of the capital city does Louba live?	71.15	24.11	4.74
Who is Toro?	56.13	36.36	7.51
What was Louba's dream for the future?	26.88	46.25	26.87
What is Louba's football made of?	9.88	46.25	43.87
What is the title of the passage?	35.18	17.39	47.43
What do you like about passage?	5.53	42.69	51.78

The above Table represents the percentage distribution of results obtained by pupils' in comprehension tests conducted in English. The main aim of the test was to further assess pupils' performance in language and literacy, when English

was used as a medium of instruction. The comprehension tests were based on a passage taken from one of the Ghana Education Service prescribed textbooks for P3. (see Appendix A5). The passage was retyped with open ended questions comprising recall questions and inference questions, and each pupil was given a copy (see appendix A6). Pupils were given 40 minutes to read and answer the questions on the passage. The results showed that majority of the pupils could barely read the passage and managed to provide some correct answers to the recall questions from the passage. The following recall questions for example: “Where does Louba live?” “Which part of the capital city does Louba live?” and “Who is Toro?” recorded high percentages (83.00%, 71.15% and 53.13%) respectively. On the other hand, the inference questions, such as: “What was Louba’s dream for the future?” were answered incorrectly by 46.25% of the pupils and 47.43% did not provide any answers.

Figure 8: Percentage Distribution of Results on Picture Description



The above chart presents the results of a Picture Reading and Description test (See Appendix A3). This was conducted to test pupils’ language and literacy skills in writing. An enlarged picture was posted on the board in front of the class and pupils were required to closely look at the picture and write five sentences on whatever they saw in the picture (see Appendix A4).

Results presented in the Figure 8 above represent the total number of pupils who took the test in the selected schools. Pupils were required to compose a five different sentences of what they saw in the picture poster. Each of the sentences that the pupils wrote was assessed in two ways. The first assessment focused on the completeness of each sentence. The second requirement of the assessment considered the frequency of grammatical errors such as wrong usage and misspelt words. In each sentence of the five sentences pupils were required to compose, the pupils were required to give a different description of what they saw in the picture. Each sentence was scored according to the following rubrics: Poor, Fair, Good, No Response and Incoherent. The table below shows an interpretation for each rubric.

Table 4: Criteria of Assessment of Picture Description Test (see Appendix A3 & A4)

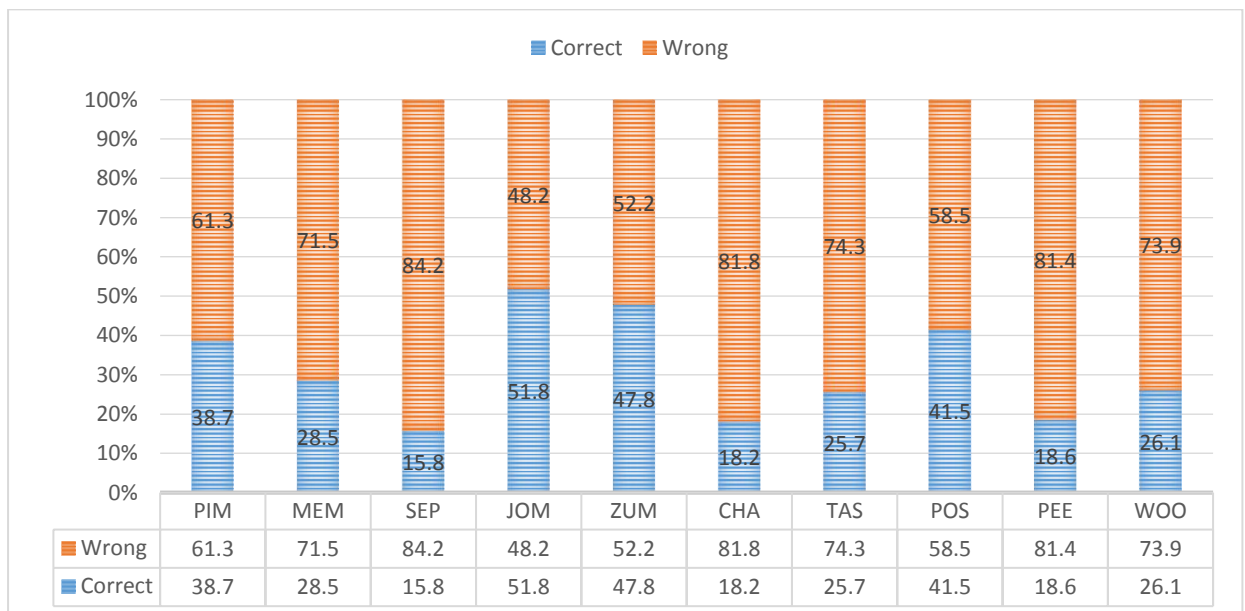
Poor	Fair	Good	Incoherent	No Response
Sentences that contained major grammatical errors.	Sentences that contained a number of grammatical errors.	Sentences that contained minimal grammatical errors.	Meaningless and ungrammatical words and phrases.	No sentence was written
Responses that indicated only isolated words and phrases.	One or two corrected sentences out of the total of five.	Three or four correct sentences were provided out of the total of five..	Responses were not related to the picture in the poster	

The results, presented earlier in Figure 8 show a very poor performance of the pupils in their writing skills in English. Few (an average of 11.9% sentences) pupils did not provide all the five sentences required for a complete description. A significant number of the sentences (an average of 70.7% and 11.9% respectively) provided was either poor or incoherent. Only few (an average of

1.7%) of the sentences had less noticeable grammatical errors in all the five (5) sentences. This suggested that the pupils’ performance in language and literacy skills in P.3 was significantly below expectation.

Pupils’ assessment in literacy also covered phonemic awareness skills. This skill, as stipulated in the Standards and Milestone document – a compulsory teaching aid for all lower primary school teachers – supports the reading ability of pupils (see Appendix B1). This test consists of a selection of any three-English letter words. A total of 10 words, (*under, tree, came, away, sad, eat, went, little, some, make*) from a reading passage, were picked in no particular order. The focus was to test pupils’ ability to make judgments about sounds of letters and be able to correctly pronounce any three-letter combination of English vowels and consonants sounds. As stated, the combinations of the three letter words used in this test were based on the “Standards and Milestone” document of the Ghana Education Service (see Figure 10). The results of the test are presented in the component bar chart below.

Figure 9: Test on Phonemic Awareness previously 8



It is evident from the chart above that pupils were unable to perform well in the Phonemic Awareness pronunciation test. This is shown by the high percentages indicated for “wrong” on the chart. For most of the words, it can be concluded that pupils performed poorly in the pronunciation test. The conclusion drawn from

the chart above is that majority of pupils who took the test lack phoneme awareness skills in English. The next presentation is the test on Phonic skills.

Figure 10: Performance in the English Phonics test (see Appendix A9)

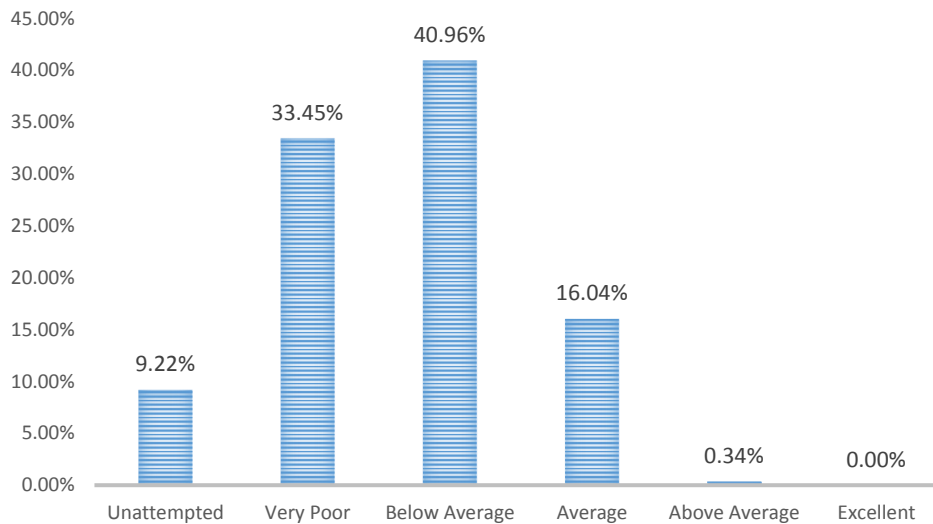


Table 5: Likert Scale used in Phonics test

Score	1 - 8	9 - 16	17 - 24	25 – 32	33 - 40
Scale	Very Poor	Below Average	Average	Above Average	Excellent

The test in phonics consisted of 24 letters and 16 digraphs (see appendix 10). Pupils were required to pronounce each letter sound and digraph. Out of 293 pupils in all the eight (8) schools visited, 9.22% did not attempt to pronounce any of the sounds, 33.45% did very poorly and could only pronounce up to eight (8) sounds correctly. 40.96% were below average and could only pronounce between nine (9) to sixteen (16) sounds correctly. 16.04% performed averagely by pronouncing between seventeen (17) to twenty-four (24) sounds correctly. Only one (0.34%) pupil did well above the average mark and was able to pronounce twenty-five (25) sounds correctly.

Generally, during the assessment, it was observed that all the pupils could not pronounce the following digraphs: /ai/, /oa/, /ie/, /ee/, /ng/, /oo/, /ch/, /sh/, /th/, /qu/, /ou/, /oi/, /ue/, /er/, and /ar/. The only digraph a few could pronounce without any difficulty was /or/. This is so because “or” is a word in the English language. Most of the pupils were able to pronounce sounds of letters such as /s/, /a/, /t/,

/p/, /m/, /f/, /b/, /d/ and /z/. Also, about 30% of the pupils could not say the sounds of these letters: /i/, /c/, /r/, /e/, /w/, /v/, /y/, /x/ and /q/.

Figure 11: Phonics test Performance Distribution in English

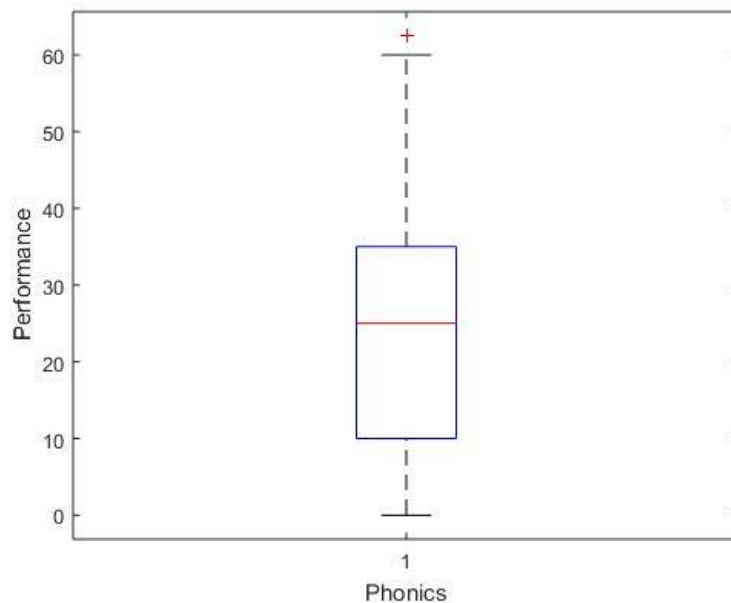


Figure 10 above shows a graphical representation of the performance distribution in the phonics test which indicates that the middle 50% of the performance distribution is from 10% to 35%. The median is the middle value in an ordered set of values. In the boxplot above, the median value is 25% which suggests that half of the class scored lower than 25 per cent and the other half greater than 25%. The median is slightly greater than the average score of 24.23%, this results in a right skewed distribution. The plot also reveals one outlier with a score of 62.5%. The column chart (Figure 10) below shows the same phonic test results using the Likert scale in the Table 6. The next session presents and analyses the vocabulary tests.

The test on vocabulary involved the correct pronunciation and associating the correct meaning to ten (10) words. The underlined words in the following passage were selected for each pupil read to aloud.

Children love toys. Abena also loves her rug toy. One day, she put her rug toy in a basket and put the basket under the big tree in her house. In the night, a big dog came and took her rug toy away. She was very sad. She did not eat her food. She went with her little sister to look for her toy. Some friends also came to the house to make a new doll for Abena. The next day, Abena saw rug doll behind her house.

Figure 12: Performance in the English Vocabulary test

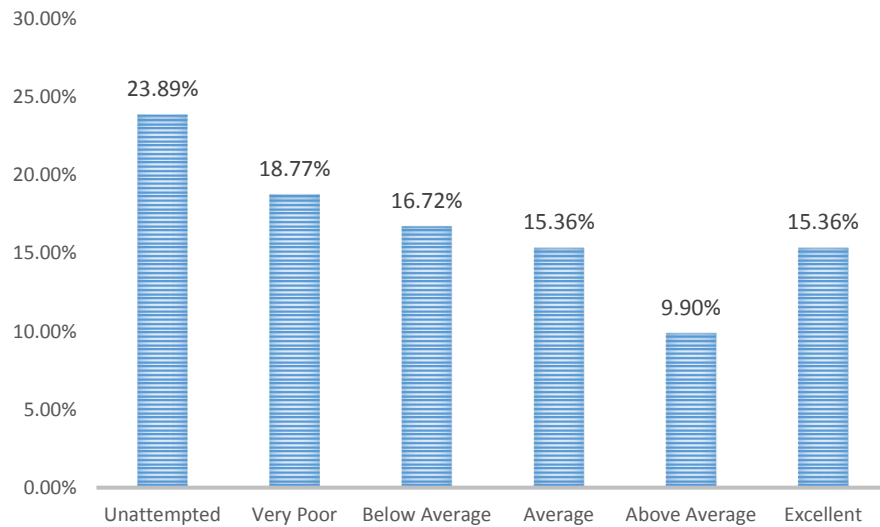


Table 6: Likert Scale used in Vocabulary test

Score	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10
Scale	Very Poor	Below Average	Average	Above Average	Excellent

Out of all the pupils that participated in the vocabulary test, a significant number (23.89%) of pupil did not attempt to mention any of the words, 18.77% could only mention up to two (2) words with their correct meaning which is considered as very poor, and 16.72% of pupil perform below average. However, 15.36% performed averagely by mentioning and attributing the correct meaning to up to five (5) or six (6) words and excellently by mentioning and giving the right meaning up to nine (9) or ten (10) words. Only 9.90% of the pupil assessed were above average, they were able to mention and give the correct meaning to up to seven (7) or eight (8) words. Most of the pupils had difficulty in mentioning some of the words in isolation but were able to mention those same words when they were put in sentences. Also, majority of the pupil had no knowledge of diphthongs, so about 65% of them pronounced “came” as “come”. However, from the test, almost 98% of them were able to mention “Eat”, “Tree” and “Time” without any difficulty.

The column chart (Figure 12) below shows the same vocabulary test results using the Likert scale in the table (Table 6) that follows.

Figure 13: Vocabulary test Performance Distribution in English

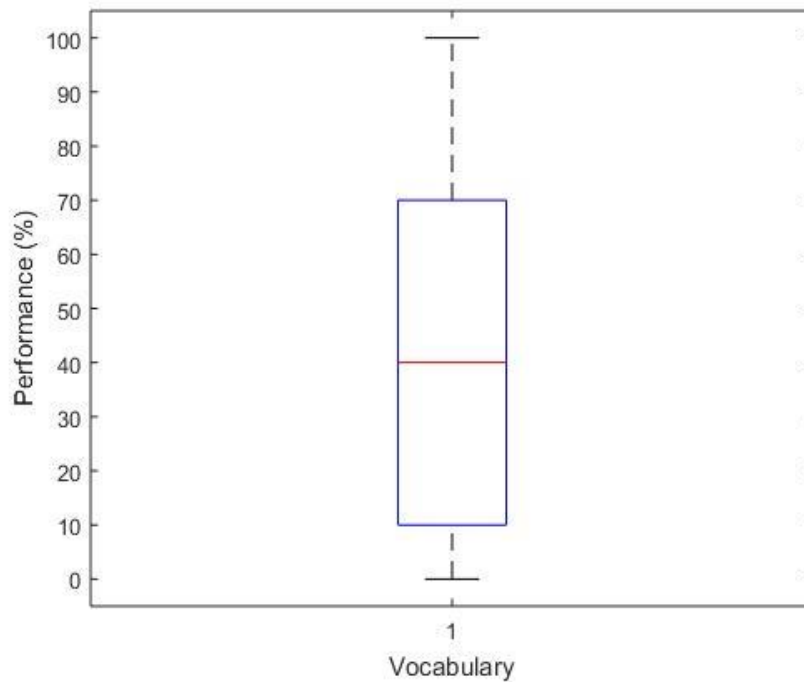


Figure 12 above shows a graphical representation of the performance distribution in the vocabulary test. The middle 50% of the performance distribution is from 10% to 67.5%. The median value is 40% which suggests that half of the class scored lower than 40% and the other half greater than 40%. The median is slightly greater than the average score of 38.95%, thus the results shows a right skewed distribution.

Figure 14: Performance in the Fluency test

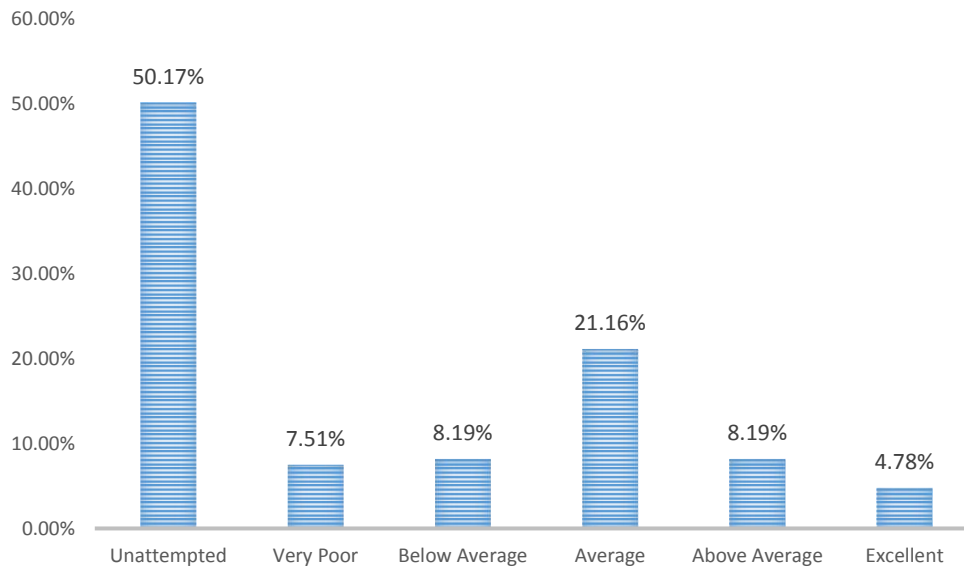


Table 7: Likert Scale used in Fluency test

Score	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10
Scale	Very Poor	Below Average	Average	Above Average	Excellent

The fluency of the pupils were assessed by requiring them to read the following passage which is made up of eight (8) sentences:

Many children are in school today. Fatima is also in school. The name of their school is St. Mary's Primary. There are two hundred and fifty children in the school. Boys are one hundred. Girls are one hundred and fifty. The school is a mixed school. Both boys and Girls learn together.

Each correctly read sentence attracted one (1) mark, and two (2) for the overall fluency. The results in figure 14 shows that 50.17% of pupils did not attempt to read the passage. 8.17% of the pupils performed poorly by being able to read only a single sentence, and 7.51% were below average. On the average, 21.16% of the pupils were able to read half of the number of sentences. On the other hand, a few (8.19%) of the pupils performed above average, and a much smaller number (4.78%) of the pupils managed to perform excellently by reading all the sentences.

A significant number of the pupils were not familiar with the following words in the passage: *many, children, their, St., Mary's, hundred, mixed and together.*

The results of these tests suggest that English as a language is a challenge to most of the selected P.3 pupils.

Figure 15: The Fluency Performance Distribution

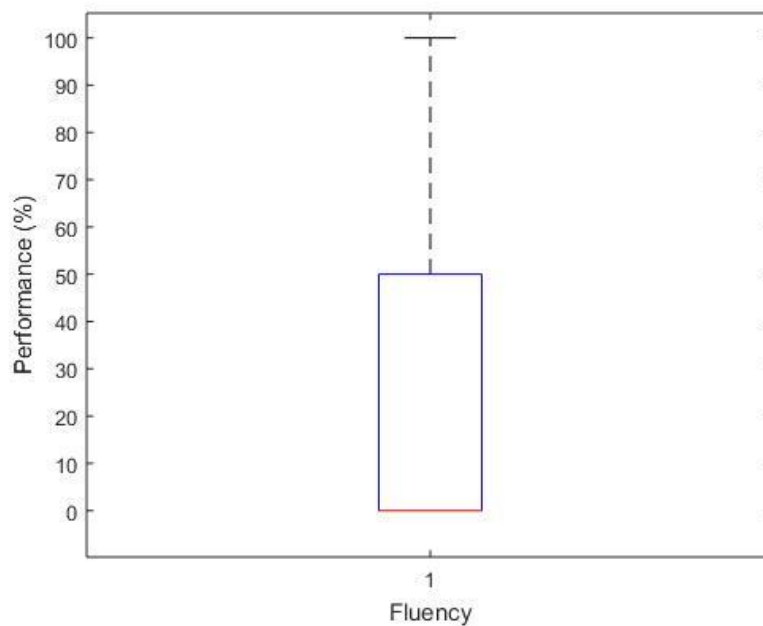


Figure 14 above shows a graphical representation of the performance distribution in the Fluency test which indicates that the 50% of the performance distribution is from 0% to 50%. The median value is 0% which means that half of the class scored 0% (i.e. half the pupils did not attempt to read the given the passage) and the other half scored above 0%. The median is 0% which is less than the average score of 25.92%, this results in a right skewed distribution. The column chart (Figure 14) below shows the same fluency test results using the Likert scale in the Table 7.

The next section presents the second theme of the research.

5.4 Theme 2: Mother-tongue medium of instruction supports pupils' academic performance in literacy

This section presents data on how the use of mother-tongue as a medium of instruction supports pupils' academic performance in literacy. Data for this theme

were obtained from teachers' and pupils' interviews, and pupils' Reading Comprehension and Picture Description test results in mother-tongue. The data for these are presented and analysed below.

Table 8: Pupils' Language Background

Language Group	Number of pupils	Percentage
Ga	129	44.02
Fante	27	9.22
Asante Twi	51	17.41
Akwapim Twi	37	12.63
Ewe	30	10.24
*Others	19	6.48
Total	293	100

*Dagbani, Gurune, Nzema, Krobo, Dangme Nkonya, Logba, Kasem

Since the major aim of the research was to assess the medium of instruction against pupils' academic performance in literacy, it was necessary to survey the language backgrounds of respondents. Based on the results above, 44.02% of the pupils speak Ga, 9.22% speak Fante and 10.24 speak Ewe. An additional 17.41% of the pupils speak Asante-Twi, while 12.63% speak Akuapem-Twi. The results show that Ga was the most widely spoken language by pupils selected for the research. It is also noticeable from the data that some of the pupils are bilingual, and are able to speak two Ghanaian languages. The Table below presents a cross tabulation on pupils' most proficient language and their preferred language as medium of instruction.

Table 9: Cross tabulation table on pupils' most proficient language and preference

Most Proficient Language(s)	Preference of language use during lessons		
	Yes	No	Total
English	8	11	19
Ga	8	8	16
Ewe	4	5	9
Asante Twi	18	29	47



Sub-Total		53(18%)	91(31%)
*Others	3	7	10
English/Asante Twi	26	30	56
English/Others	4	0	4
Ga/Asante Twi	29	27	56
English/Ewe	9	9	18
English/Ga	24	28	52
Ga/Ewe	3	3	6
Sub-Total	98(33%)	104(35%)	202(69%)
Overall Total	136(46%)	157(54%)	293(100%)

*Dagbani, Gurune, Nzema, Krobo, Dangme Nkonya, Logba, Kasem

Earlier information from Table 2 on the demography of pupils indicated Ga as the language pupils speak most. Table 8 above shows that some pupils are able to speak two Ghanaian languages and English (Ga and Asante Twi/Asante Twi and English). Results from the table indicate little variation in the preferred language choice as medium of instruction. Below is a pupil's edited comment on the choice of mother-tongue as medium of instruction.

It has always been my wish to see my teacher teach in Asante-Twi. I always do well when my teacher explains class exercises and questions in Asante-Twi. I would be very happy if you could tell my teacher to use Asante Twi in teaching Maths, Science and ICT. All my friends complain that they find it difficult to understand what our teacher teaches when the lesson is in English.

Another pupil's edited comment states:

My mother has advised me to try and speak English anytime I am in school. I would be happy if I am able to speak good English. But I always understand lessons better if my teacher uses Ga to further explain what has been taught in English. As a result of this, I would wish that all the subjects my teacher teaches me will be in Ga.

Based on these comments, it is clear that pupils would prefer the use of Ga as medium of instruction. They also notice an improvement in their academic performance, if a mother-tongue (Ghanaian language) is used as a medium of instruction. The next Table presents the results of the Reading Comprehension Test in Ga.

Table 10: Percentage Distribution of Comprehension Test in mother-tongue (Ga: see Appendix 7 & 8)

	Correct (%)	Incorrect (%)	Not attempted (%)
Nεgbε Louba γαα?	66.80	31.62	1.58
Maηtiase Iε nεgbε fǎ Louba γαα?	44.66	37.55	17.79
Namα ji Toro?	38.34	51.38	10.28
Namα Louba sumαα akε etsα wαsεε?	11.86	59.68	28.46
Mεni akεfee Louba bαolu Iε?	5.53	61.66	32.81
Mεni ji sane Iε yitso?	16.21	46.85	37.94
Mεni osumαα ye sane Iε he?	1.98	51.78	46.5

The above Table shows the results of pupils in the comprehension test conducted in Ga. The same test was conducted in English in schools which used an English medium of instruction. The same reading passage and questions in English were translated into Ga. (see appendix A7).

Table 10 above indicates that pupils provided correct answers to recall questions such as “Nεgbε Louba γαα?” and “Maηtiase Iε nεgbε fǎ Louba γαα?” with percentages of 66.80% and 44.66% respectively. Pupils however performed poorly in answering inference questions which required implied meanings of what they had read from the passage and had to express their opinions for a correct answer. High percentages of incorrect answers were recorded on the inference questions, while most of such inference questions were also left ‘unattempted’ by some pupils. The results of the Reading Comprehension test in Ga are similar to the results of the English language Reading Comprehension test.

Figure 16: Distribution on Results of Picture Reading Test in Ga (Mother-tongue)



The above table presents the results of a Picture Reading and Description test in Ga (see Appendix A3). This test is the Ga version the same test conducted in the English language. The same procedure and criteria for assessment for the English language test were used in conducting the test in Ga. The chart above shows that majority of the pupils performed poorly (an average of 77.1% sentences). As indicated in the results of the test in English language, a few (an average of 2.61% sentences) of the pupils were able to describe the picture in meaningful and relevant sentences. Similar to the results of the English Test, the pupils failed to comprehend the passage in Ga which is shown by the poor responses they gave to both the recall questions and inference questions.

Figure 17: The Fluency Performance Distribution Ga

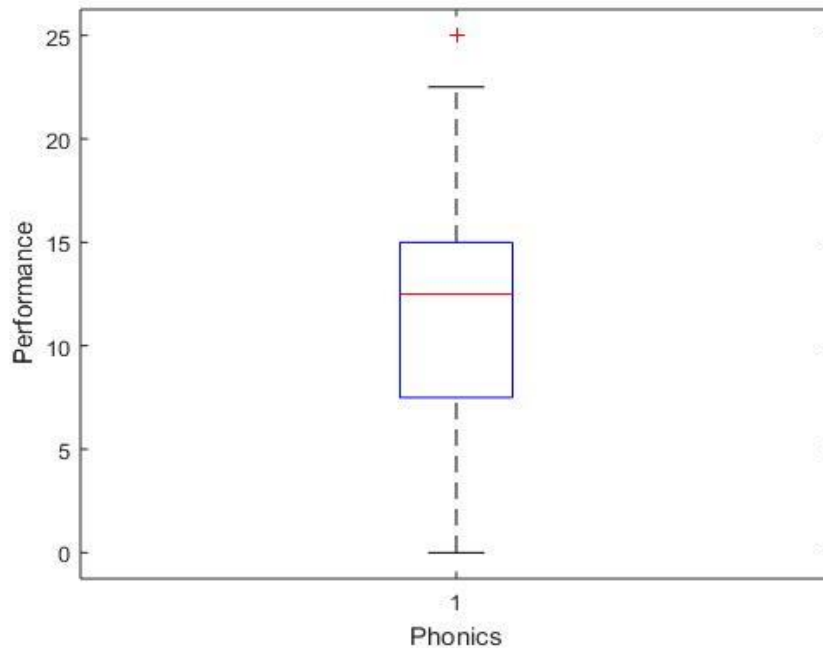


Figure 16 above shows a graphical representation of the performance distribution in the phonics assessment which indicates that 50% of the performance distribution is from 7.5% to 15%. The median value is 12.5% which suggests that half of the class scored lower than 12.5% and the other half greater than 12.5%. The median is slightly greater than the average score of 11.32%, this results in a right skewed distribution. Also, the plot reveals one outlier with a score of 62.5%. The column chart (figure 17) below shows the same phonics test results using the Likert scale in the table 11 below.

Figure 18: Performance in the Ga Phonics Test (see appendix)

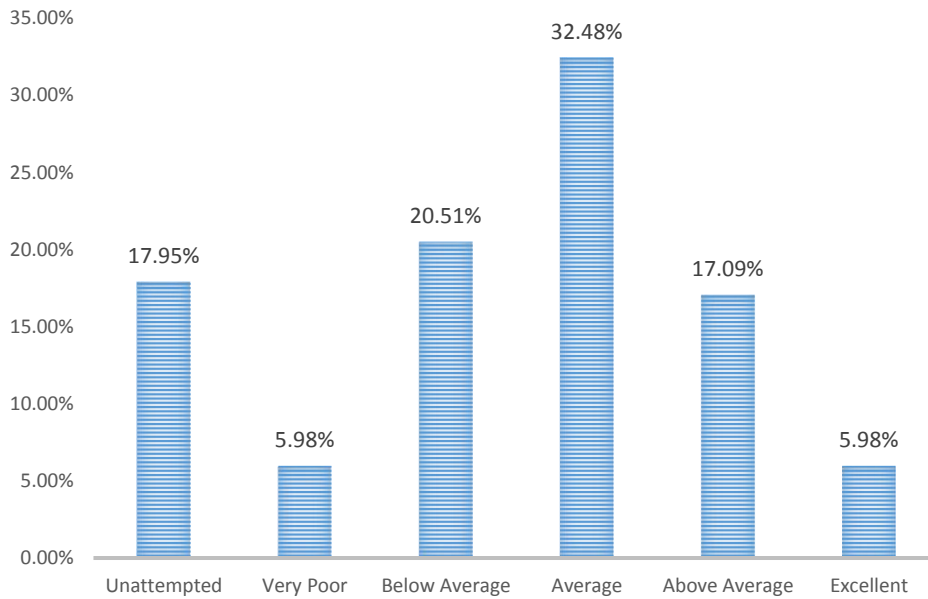


Table 11: The General Likert Scale used for the Column Chart

Score	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10
General scale	Very Poor	Below Average	Average	Above Average	Excellent

The column chart in Figure 17 and Likert scale in Table 11 above illustrate the performance of the pupils in the Phonics assessments in mother-tongue. From the column chart above, 17.95% of the pupils did not attempt to pronounce any of the sounds associated to any of the letters or letter patterns. On the average 32.48% of the pupil were able to pronounce 50% of the sounds presented to them and 5.98% of the pupils performed excellently by managing to pronounce all the sounds associated to the letters and letter patterns.

Figure 19: The Distribution of the Vocabulary Test in Ga (see Appendix A9)

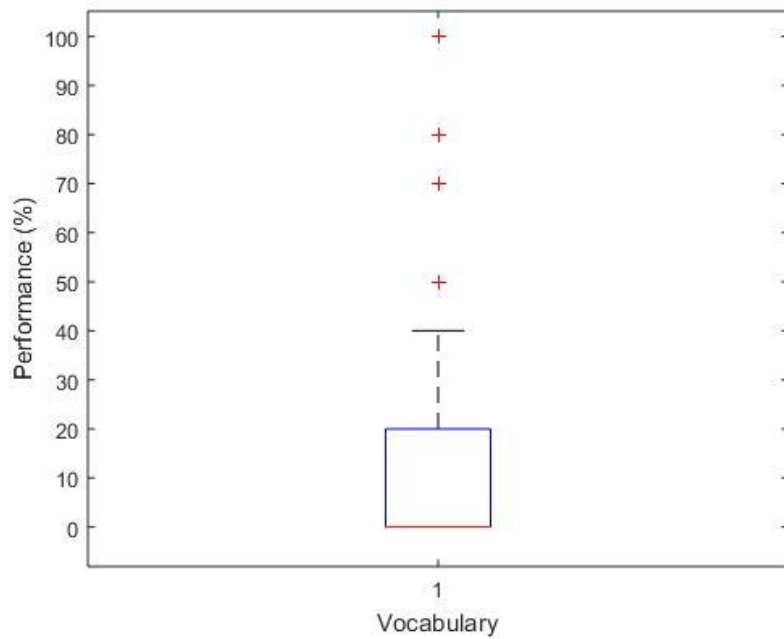


Figure 18 above illustrates the performance distribution in the vocabulary assessment which indicates that 50% of the performance distribution is from 0% to 20%. The median value is 0% which suggests that half of the class did not attempt to answer any of the assessment questions. The plot also reveals four outliers. The column chart (figure 19) below shows the same vocabulary test results using the Likert scale in the table 11.

Figure 20: Performance in the Vocabulary Test (see Appendix (A 9))

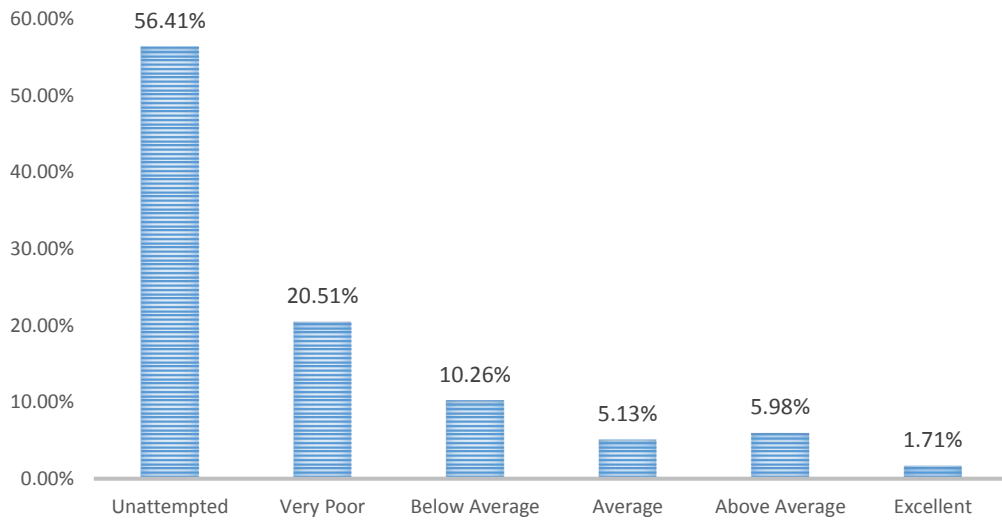


Figure 19 shows the performance of pupils in the Vocabulary assessment test. The total percentage of pupils that were below the average mark is 30.77% (20.51% + 10.26%), and 7.69% (5.98% + 1.71%) were above average with exactly 1.71% performing excellently. 5.13% of the pupils had an average score but because 56.41% of the pupils did not attempt any of the questions, the average performance is close to zero as shown in the boxplot in Figure 18.

Figure 21: The Fluency Performance Distribution Ga

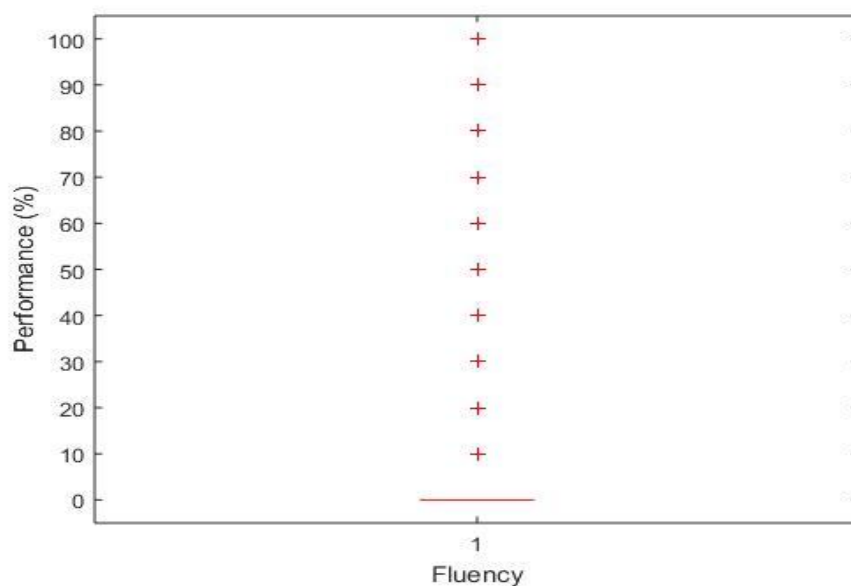
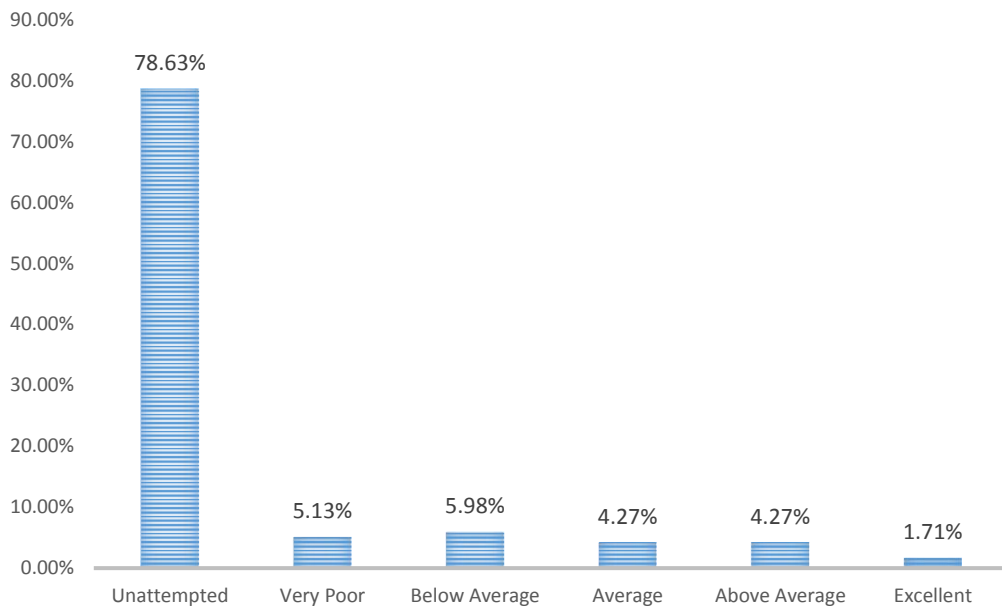




Figure 20 above shows a graphical representation of the performance distribution in the Fluency assessment which indicates that the distribution is greatly right skewed with a zero mean and a zero median. The plot also reveals several outliers on the upper extreme part of the distribution. The column chart (figure 21) below shows the same phonic test results using the Likert scale in the table (Table 12) that follows.

Figure 22: Performance in the Ga Fluency Test



The fluency test results shown in figure 21 above indicates that a large percentage (78.63%) of pupils did not attempt any of the questions. 1.71% of the pupils were able to answer all the questions. Out of this, 4.27% were able to answer about half of the the questions. From the associated box plot in figure 20, it is indicated that the arithmetic mean is towards zero. This is a reflection of the percentage of pupils who did not attempt any of the questions.

The main indication from these results is that pupils' performance in all the tests in both English and the Ghanaian language are below expectation.

The next section presents the third theme for the analysis.

5.5 Theme 3: Teacher Initiated Code Switching/Code-mixing Supports Pupils' Academic Performance in Literacy

The main objective of this theme was to find out if teachers code-switch/code mix during lessons, and if they did, to find out their reasons for doing so. To achieve this objective of the research, it was important to find out the language background of the teachers.

Table 12: Mother-tongue of Teachers

Mother	Percentage	Frequency
Asante Twi	42.9%	3
Ewe	42.9	3
Ga	14.3	1
Total	100%	7

Table 12 above shows the distribution of teachers' mother-tongues. A further explanation of the data is presented with a cross-tabulation below.

Table 13: Cross tabulation of the mother-tongue of teachers and the subjects taught by teachers

Mother-tongue of teacher	Subject(s) taught by teacher		Total
	All subject excepts Ga	All subject including Ga	
Asante Twi	2 (66.7%)	1 (33.3%)	3 (100%)
Ewe	2 (66.7%)	1 (33.3%)	4 (100%)
Ga	0 (00.0%)	1 (100.0%)	1 (100%)
Total	4 (57.1%)	3 (42.9%)	8 (100%)

The Table above presents a cross tabulation of the teachers' mother-tongue and the subjects they teach. In all, eight (8) teachers were interviewed and observed during lessons. Three (3) out of the eight (8) teachers indicated Asante Twi and Ewe as their mother-tongue (see Table 13). Only one (1) of the teachers indicated Ga as mother-tongue. The data further revealed that majority of the pupils (43.1%) speak Ga while two (3) of the schools surveyed also uses only Ga as medium of instruction. Results from the table also show that four (4) of the


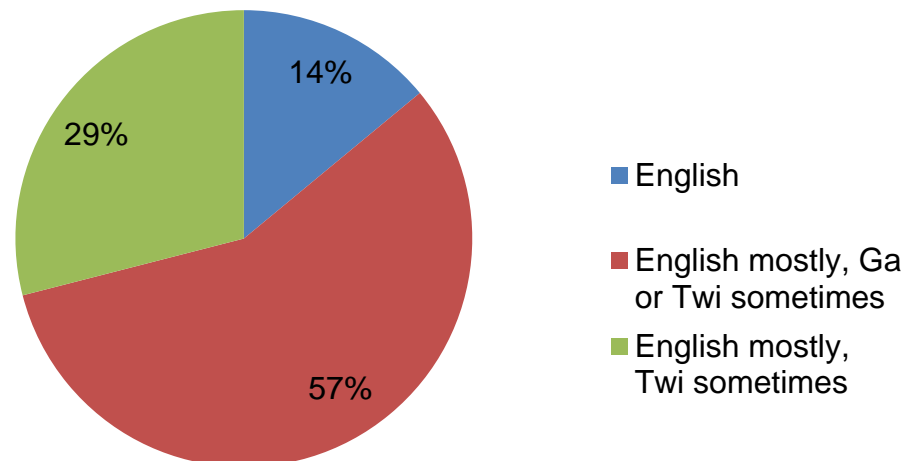
teachers teach all other subjects  Ga while the remaining three (3) teachers claim they teach all subjects including Ga. Below is the pie chart which depicts the distribution of languages used by teachers during language and literacy lessons.

Figure 23: Pie Chart Depicting Language Use of Teachers in Class



With regards to the language(s) that teachers use as medium of instruction, the chart indicates that a large proportion of the teachers (57%) uses English language mostly but sometimes code-switch/code-mix with Ga. Fourteen percent (14%) of the teachers also showed that they used only English language as medium of instruction class.

At Independent Avenue 'A' Primary School, a teacher had this to say when interviewed:

I have very little knowledge in Ga, but I am learning Ga because I need to use it to teach my lessons. I can speak Twi and Ewe but the language-in-education policy does not allow me to use any of these languages as a medium of instruction during lessons. Therefore I managed to interject my lessons with a few Ga phrases I learnt, and use English most of the times to teach my lessons. But because I have to use Ga, I try my best to say what I know in Ga.

Responses from teachers' interviews as stated earlier seemed to confirm the instances of teacher-initiated code-switching and code-mixing. This was supported with information gathered from the participant's class observations and video recordings. Almost all the teachers admitted that they resort to code-switching/code-mixing as a strategy to optimise their lessons. The next session

of the chapter presents information on the fourth theme: challenges that teachers face with a particular choice of medium of instruction.

5.6 Theme 4 Teachers face challenges in the choice of particular medium of instruction

Presented below are the challenges encountered by teachers. This was based on information gathered from earlier results including interviews and observations (see Fig 13 & Table 22).

Figure 13 presented earlier shows that most teachers were not proficient in the use of Ga, the approved Ghanaian language for use as Mol in each of the eight selected schools. Teachers' inability to speak the language(s) pupils speak and the government approved language selected for use as medium of instruction created varying levels of difficulty for both pupils and teachers. Moreover, some teachers, during the interview, stated that even though they could speak and understand Ga, they were unable to read and write in Ga, meaning they were not literate in Ga. The effect of teachers' not being literate in Ga did have an adverse effect on the academic performance of pupils as indicated in the poor results from the reading comprehension and picture description test in both Ga and English presented earlier (see Figure 8 & Figure 15).

Data from pupils' language backgrounds in Table 8 suggested that pupils could speak different languages or have different mother-tongues. While some could speak only Ga, others could speak Ewe, Asante twi, Akuapim twi or Fante, or even a combination of these languages. Table 8 indicated a combination of these languages to a total of 13 different languages as pupils' mother-tongues. As a result of this situation, it becomes almost impossible for the use of a particular language as a medium of instruction in P.3. As stated earlier in the chapter, to minimize this challenge, one strategy that some teachers adopted was code-switching. However, this has its own implications which are further discussed under item 5.5 of the chapter.

Teacher posting is another challenge teachers faced in the classroom. The class teacher for Adenkreb Primary School admitted that he was posted the school as a fresh teacher from college to fulfil his National Service obligations, and the only language he speaks is Ewe. Therefore, he was not able to teach the pupils in Ga

as expected. There was also no opportunity for him to get a support teacher because the school did not have enough teachers. As a result, he had no choice than use English as medium of instruction for all his lessons. In Independence Avenue “A” Primary school, the teacher who could only speak Asante Twi very well had difficulty in teaching the pupils in Ga. One pupil who was interviewed in the class explained that he would prefer his teacher to use English as medium of instruction. His reason was that the Ga that the teacher attempts to speak was very incorrect and sometimes incoherent. The teacher further explained in the interview that she was posted from Asante Region, where she was able to use Asante Twi as medium of instruction, to her present school where she could hardly use Ga as medium of instruction. This was her explanation of using English as medium of instruction for all her lessons. This shows that teachers’ language backgrounds were very crucial in supporting pupils’ academic performance in the classroom.

The classroom observations and interviews conducted revealed inadequate teaching and learning materials in the schools. Materials, especially textbooks in the mother-tongue were not available in sufficient quantities. Some classes had more than three pupils to one textbook, and this did not support effective learning especially during reading sections. Moreover, supplementary readers to support improvement of pupils’ literacy skills were non-existent. This again contributed to pupils’ poor performance in the tests conducted. The next section sums up with a comparison of the results in pupils’ performance in English and Ga (mother-tongue) tests using statistical inference.

5.7 Theme 5 Compare P.3 pupils’ academic performance in English to pupils’ academic performance in Mother-tongue.

Based on all the results presented in this chapter, it is necessary to statistically measure the differences or otherwise between pupils’ performance when English was used as a Mol and when Ga (mother-tongue) was used as a Mol.

This required a comparison between the average performance in each test in English and its corresponding test in Ga. In addition, there was another comparison between the overall average in all tests in English and in Ga. The process used to achieve the desired results was the hypothesis testing

framework, relying on the Central Limit Theorem (CLT). Specifically, the z-test statistics was used to compare the two independent groups because of the following conditions:

- The sample sizes (the number of pupils per school) is at least 30 which was greatly less than ten per cent of the population of pupils in the greater Accra region of Ghana.
- Each pupil's tests in English or Ga for the same or different school is assumed to be independent.
-
- All the pupils that took the test from the various schools in Ga and in English are assumed to be independent with different sample sizes, hence could not be paired.
-
- The performance of students in a class usually turns out to follow a normal distribution
-

There are two possible competing claims on the results presented so far. Hence the hypothesis is as follows:

Null hypothesis (H_0): There is no significant difference in the performance of pupils when English is used as Mol and when Ga is used as a Mol:

$$\text{Represented as } H_0: \mu_{\text{Eng}} - \mu_{\text{Ga}} = 0$$

Alternative hypothesis (H_A): There is significant difference in the performance of pupils when English is used as Mol and when Ga is used as a Mol:

$$\text{Represented as } H_A: \mu_{\text{Eng}} - \mu_{\text{Ga}} \neq 0$$

Where μ_{Eng} and μ_{Ga} are the population mean for English as Mol and Ga as a Mol respectively.

The point estimate used is $(\bar{X}_{\text{Eng}} - \bar{X}_{\text{Ga}}) \sim N(\text{mean} = 0, \text{SE} = \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}})$ which is normally distributed given that it meets the four conditions stated in the second paragraph of this section.


Table 14: Descriptive Statistics on Test Results (English & Ga)

	Phonics		Vocabulary		Fluency		Comprehension		Writing	
	English %	Ga %	English %	Ga %	English %	Ga %	English %	Ga %	English %	Ga %
Means(\bar{X})	0.24	0.11	0.39	0.15	0.26	0.10	0.26	0.21	0.54	0.54
Sample size (n)	293	117	293	117	293	117	257	207	257	42
Sample std (s)	0.16	0.07	0.34	0.24	0.31	0.23	0.17	0.15	0.19	0.21
Standard error(SE)	0.011283584		0.029514824		0.027622211		0.014777937		0.034048382	
Z-statistic	11.48		8.11		5.70		3.56		-0.07	
p-value	0		0		0		0		0.9442	

Table 14 illustrates the descriptive statistics, z-statistic and the corresponding p-values that resulted from the comparison of the average performance of pupils when English is used as Mol and when Ga is used as Mol in all the various categories under the literacy program.

From the table above (table 14), the p-values for Phonics, Vocabulary, Fluency and Comprehension are almost zeros. At a confidence level of 0.95 (i.e. 0.05 significance), it is obvious that a p-value of zero is less than 0.05 significance. Hence for Phonics, Vocabulary, Fluency and Comprehension the null hypothesis is rejected (H_0) in favor of the alternative hypothesis (H_A). The conclusion then is that the data provides convincing evidence that there are noticeable differences in performance between English and Ga as Mol for Phonics, Vocabulary, Fluency and Comprehension. Meanwhile, in the case of Writing Skills, the null hypothesis (H_0) is not rejected in favor of the alternative hypothesis (H_A), because the p-value ($\approx 0.9\%$) for the Writing test is greater than 0.05 significance. Hence, for the Writing test we conclude that the data does not provide convincing evidence that there is any difference between pupils' performance in Writing when taught in English and Ga.

Table 15: The overall Descriptive Statistics between English as Mol and Ga as Mol

	English	Ga
Means(\bar{X})	0.335266	0.180417
Sample size (n)	1393	600
Sample std (s)	0.270314	0.210021
Standard error(SE)	0.011223618	
z-statistics	13.79670477	
p-value	0	

When all the tests conducted are put into two groups, those in English and those in Ga, and the average performance are compared, the p-value is zero (as shown in Table 15) which is less than the 0.05 level of significance. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis. This implies that the data provides evidence of a difference in pupils' average performance when English is used as Mol and when Ga is used as Mol. The next session of the chapter discusses the findings of the data presentation and analysis.

5.8 Discussion of Findings

5.8.1 Introduction

The purpose of this research, as mentioned earlier in Chapter 1, is to assess how the choice of a particular medium of instruction affects pupils' academic performance in literacy at P.3. This section discusses the significant issues related to the findings of the data analysis. The discussion in the section is guided by the research questions presented in Chapter 1 (see section 1.4), the theoretical framework underpinning the research as well as evidence from the literature reviewed in Chapter 2. The first section discusses the first research question.

5.8.2 To what extent does English medium of instruction support the academic performance of P.3 pupils?

The first research question as stated in Chapter 1 sought to investigate the extent to which the use of English medium of instruction supported pupils' academic performance in literacy. In bilingual education, the flip side of both mother-tongue and English are presented in the teaching and learning process. This point is encapsulated in Cummins' (1978) Threshold Theory of conversational (BICS) and academic (CALPS) skills. This point was used to support the fact that when children come to school with a first language, the development of that first language is paramount in sustaining the second language to which the children are exposed.

Five of the schools selected and observed, (Adenkrebi, Independence Avenue 'A', Richard Akwei, Kwabenya Atomic and Abokobi primary schools) used an English Mol for all their lessons. However, the Language and Literacy lessons were not taught according to the directives given by the GES (see Chapter 1 Table.1). As explained, for the 90 minutes of Language and Literacy lesson, pupils in P.3 should be exposed to 45 minutes of English and 45 minutes of mother-tongue. This period is not supposed to be used for English as a subject lesson. This is because, the two subjects: English language and mother-tongue have been combined into one Language and Literacy lesson. However, this directive was not followed by teachers in all the 5 P.3 classes observed. So, all the Language and Literacy lessons observed in all the five schools mentioned, were taught in English. Also, in all the 5 P.3 classes observed, textbooks prescribed for Language and Literacy were not used at all.

According to the Threshold Theory, pupils' BICS, though conversational in nature is equally cognitively demanding as the CALPS (Cummins, 2000). Failing to develop pupils' BICS as stipulated in the Language and Literacy time-table for P.3 has two main effects on the pupils. Firstly, using only an English Mol diminishes the pupils' mother-tongue, and impedes the cognitive development of the second language, English (CALPS). Secondly, when pupils are taught only in English, it results in the denigration of the mother-

tongue. As explained by Lambert (1989), a situation in which pupils' mother-tongue is replaced by a second language, in this case, English, the dominance of the second language, English language, overshadows the mother-tongue, resulting in Subtractive Bilingualism (see 2.4.1.2). Cummins (2000), reiterates that Subtractive Bilingualism does not only result in the loss of pupils' mother-tongue, it also affects the cognitive development of their literacy skills. This goes to confirm that the choice of an English Mol only minimally supports pupils' academic performance in literacy because the underlying skills of the mother-tongue which supports the cognitive development of English is absent in the classroom. This is encapsulated in Cummins' (2000) Interdependent Hypothesis further explained as Common Underlining Proficiency (see 2.2). The level of pupils' academic performance in literacy is guided by their level of proficiency skills in English and mother-tongue. These two skills are derived from a common underlying source and so are indispensable in the Language and Literacy classroom. In line with Cummin's proposition, Baker (1996) had earlier posited that when teachers do not teach their lessons in mother-tongue, it results in an academic deficit in literacy skills for pupils.


It is noted at this point that if the language-in-education policy makes provision for an alternative choice, English language, in a situation where mother-tongue medium of education is not feasible, then the schools have not violated the implementation of the language-in-education policy. However, research has also indicated that the language of instruction has an effect on pupils' academic performance (Prah, 1995; Ball 2011; Bamgbose, 2011a). The expectation then is that if the language-in-education policy envisaged, an English medium of instruction in P.3 classrooms, in some cases, then adequate provision ought to have been made for its effective implementation. Pupils' academic performance in literacy skills, as a result, would have been more successful.

5.8.3 Does mother-tongue medium of instruction support pupils' academic performance in literacy?

The second research question similarly assesses whether mother-tongue medium of instruction affects pupils' academic performance in literacy. Research within the African context confirms that the use of mother-tongue as medium of

instruction in pupils' early years of school supports their academic performance in literacy (Fanfuwa *et al.*, 1970; Andoh-Kumi, 1992; Lipson *et al.*, 2004; Casely-Hayford & Ghartey, 2007; Brock-Utne & Skattum 2010; Walter & Chuo 2012). This also had earlier been confirmed by (UNESCO, 1953:11 and Cummins 2001). Within this framework, the Language-in-education policy in Ghana subscribed to mother-tongue medium of instruction, if it was feasible. The benefits of mother-tongue bilingual education was also clearly exemplified in Cummins' Threshold hypothesis which confirmed that when teachers focused on developing pupils' literacy skills in the mother-tongue, it does not have an adverse effect on the development of their cognitive and literacy skills. A strong development of mother-tongue literacy skills provide a conceptual foundation for long term development of pupils' literacy skills in English.

The research surveyed three schools which used mother-tongue, Ga, as medium of instruction. The schools were Ebenezer Primary School, Osu Manhea Primary School and Calvary Methodist Primary School. Teachers from Ebenezer Primary School and Calvary Methodist Primary School were not very literate in Ga so taught their lessons with assistance from support teachers. In Calvary Methodist Primary School, the class teacher admitted, during the interview session, that she occasionally solicited support from another teacher who was literate in Ga and taught in the same school. This practice is similar to what was observed during the Six-year mother-tongue project in Nigeria. In order to facilitate lessons taught in mother-tongue (Yoruba), the project employed three categories of community members to assist classroom teachers. "...the illiterate but knowledgeable members of the society; the literate, particularly the aged members of the society; and men and women steeped in the knowledge of traditional culture..." (Fafunwa *et al.*, 1970:160). This means that other community members who are knowledgeable in the mother-tongue of the locality, in which a school is situated, could be trained as facilitators to assist class teachers if necessary. This practice again supports Vygotsky's (1987) concept of the Zone of Proximal Development, (ZPD). Within the zone, learners have the opportunity to consult what he termed, More Knowledgeable Other (MKO) who experts and can assist the learner. Therefore the strategy used by the school to provide support teachers in the mother-tongue, though not well standardized, was still better than using only English to teach a bilingual literacy class.

Cummins' (1987) however cautions  that when pupils acquire only conversational fluency, demonstrated in BICS, it does not guarantee a long term academic growth in English.

A significant benefit of bilingual education with a lopsided view of mother-tongue was also expounded in Cummin's (1981) concept of Additive Bilingualism. The concept of Additive Bilingualism in a similar research conducted by Lambert (1993) on French Canadian children confirmed that learners who had a strong foundation in their mother-tongue (French) saw a rapid cognitive development in their Second Language, (English) without losing control of their mother-tongue. This however was not positively presented in the schools who used a mother-tongue (Ga). The choice of Ga as Mol was compromised greatly mainly because the classes were heterogeneous in nature and teachers were unable to fluently speak and write in Ga. This obviously affected the teaching and learning process and had a direct effect on pupils' academic performance in literacy skills as reflected in the results of the analysis presented in Table 10.

Lessons observed in Osu Manhea Primary School were slightly different. The first part of each lesson was taught in Ga, and during the second part of the lesson, the same lesson was taught again in English. This choice of lesson plan was contrary to the GES arrangements of the Language and Literacy lesson which states that the Language and Literacy period will cover 90 minutes where pupils will be exposed to literacy activities in both English and Ghanaian language. The observation made from this was that teachers did not follow the guidance on the timing of lessons in the Language and Literacy Teacher Guide. The Guide presented each lesson, in both Ghanaian language – mother-tongue, and English as an integration of all the literacy skills, namely, Phonemic Awareness Phonics Vocabulary, Fluency and Reading and Writing skills, in a systematic and engaging plan, with both Ghanaian language and English, to cover the 90 minute period.

Another important point is that the teachers and pupils did not use Ga Literacy textbooks for their lessons. Instead, they used subject textbooks for Ga and English. The lesson time-table for the P.3 curriculum made provision for

Language and Literacy as a subject . The class observations however indicated that teachers sometimes did not combine these two lessons.

In Osu Manhea Primary School, where lessons were taught only in Ga, pupils' performance in Ga recorded appreciable marks, but in other schools, the choice of a mixture of both Ga and English as Mol affected pupils' performance as indicated in the test results earlier in the chapter.

In addition, the analysis of the overall test result showed that the choice of mother-tongue as medium of instruction in P.3 did not significantly influence pupils' academic performance in literacy. Pupils' results in the Reading Comprehension and the Picture Description writing tests were below average. Most pupils could not satisfactorily complete the five sentences of the Picture Description test required. Thus, although the lessons were interactive and pupils' participated actively during lessons in the mother-tongue medium of instruction, the outcome of the pupils' literacy levels in English especially remained unsatisfactory.

The findings from this research confirms other research findings that the use of mother-tongue does not necessarily affect pupils' academic performance in literacy (Walter and Chuo, (2012). This contrasts earlier findings from the Six-year project in Nigeria (Fafunwa *et al*, 1970). It is however noted that the project in Nigeria used a late exit model while the initial project in Cameroon used an early exit model. The Southern Africa Molteno programme also had reasons for the choice of an early exit model. It was envisaged that mother-tongue medium of instruction would support pupils' academic performance as revealed in the findings of Eakle and Garber, (2003) in the Southern Africa Molteno mother-tongue project. Based on the observations in the three schools, the research found out that pupils' command of what Cummins' (1979) explained as CALPS was very low. As Cummins (1978) earlier explained, to be able to perform very well in school, pupils should be given the opportunity to build on their mother-tongue representing BICS and reach the threshold in order to get the benefits of the much needed cognitive skills represented in CALPS, for a successful literacy academic performance.

The class observations did not also show the efficacy of mother-tongue medium of instruction in P.3 class. In his explanation, Vygotsky (1987) reiterated that a child's language learning first begins within his or her social milieu. He further stated that it is important for the 'More Knowledgeable Others' – parents and other members within the milieu to help the child build upon the process of learning a language. In line with Cummins' (2001) findings, the 'More Knowledgeable Others' that assist the child in school are the teachers and peers. The teachers in the diverse classrooms observed, could not offer the the needed support because they were not literate in the language of the community. This again corroborates, Owu-Ewie's (2013) findings that the frequent use of both English and mother-tongue in a bilingual classroom is a valuable opportunity which also contributes positively to pupils' academic performance. In line with the points raised, the research is of the view that the choice of an English medium of instruction, without consideration for other factors that make the learning conducive, does not positively affect pupils' academic performance in literacy.

5.8.4 Does Teacher initiated Code-switching/Code mixing assist in the pupils' academic performance?

This research question sought to assess whether teacher initiated code-switching helped the pupils' academic performance in literacy. The researcher observed that in all the 8 selected schools for the research, teachers would sometimes provide some explanations in mother-tongue (Ga) or code-switch/code-mix from English to mother-tongue (Ga) or from mother-tongue to English. The issue of code-switching/code-mixing has been reported in some studies in Ghanaian classrooms (Amekor, 2009; Adjei 2010; Opoku-Amankwa, 2011). This therefore showed that code-switching /code-mixing observed in the P.3 classrooms was not a new phenomenon. However, the researcher observed that teachers usually code-switched/code-mixed in order to facilitate pupils' understanding of the lesson. Additionally, some teachers code-switched/code-mixed to conceal their incompetence in the mother-tongue in which they were less proficient. At Calvary Methodist Primary School for instance, the teacher struggled to use Ga to teach the lesson anytime she taught without the Support Teacher. She had to intermittently code-switch to English or code-mix with the little Ga she could use. Some of her exchanges

recorded during the lesson were as follows: “what is a forest called?”... We will discuss the topic...; you will say your answer; you will give me examples; what is our topic?” (All the underlined words were retained in English). This was so because the teacher could not use the Ga equivalents for these words. This supports earlier findings of Lopez, (2007) that when teachers have minimal competence in the language of instruction, a choice of both mother-tongue and English (code-switching or code-mixing) is recommended. Another observation was noted at Calvary Methodist primary school, and in the words of the teacher:

“...because I have a problem with Ga, sometimes, I use Twi to explain some contexts, so the kids sometimes also help me; when I translate it into the Twi and I ask them how to say it in Ga.”

(Field data)

As stated earlier, these instances of code-switching/code-mixing were more teacher-centred and teacher-initiated. The implication of this is that since the classes observed were more heterogeneous than homogeneous, not all the pupils benefited from the instances of code-switching/code-mixing.

In sum, code-switching/code-mixing was a strategy for teachers to assist pupils to understand better the Language and Literacy lessons taught. It also assisted teachers to overcome personal inadequacies in the choice of the medium of instruction. Therefore, the issue of whether code-switching or code-mixing supports pupils’ academic performance in literacy needs to be further researched. The research did not record any significant instances that conclude that code-switching/code-switching, as a strategy, supported pupils’ academic performance in their acquisition of literacy skills.

5.8.5 What challenges do teachers face in the choice of a particular language as a medium of instruction?

The next point of discussion focused on challenges that teachers in the 8 selected schools face in the choice of a particular choice of medium of instruction. In order to address this issue appropriately, the interview results of teachers’ language and professional background were used. A major point from the interview required teachers’ understanding of the language-in-education policy,

and the challenges they faced in implementing the mother-tongue policy in the P.3 classroom.

Some of the teachers interviewed explained the policy as a translation of the mother-tongue into the English Language during lessons. For example, the teacher in Calvary Methodist Primary explained:

“The policy is there for us to use to teach the children in the mother-tongue language and we translate it into English to help them to understand their own mother-tongue.”

(Field Data)

Similarly, the teacher from Richard Akwei Memorial Primary School explained:

“Mother-tongue to English is like Ghanaian Language to English ... if you are teaching the children with mother-tongue and then some of the question you bring in the English they won't even answer you. As soon as you ask them in mother-tongue, what is ...? Then you see them put up their hands”.

(Field data)

It is obvious that teachers have conflicting interpretations of the language-in-education policy.

The responses from teachers, and the lesson observations in the classrooms, were indications that there was an immense curriculum gap between what teachers knew and what they were required to know: a clear disparity between policy and practice.

In the Six-year mother-tongue project in southern Nigeria, a related mother-tongue project, teacher training and teacher capacity building was one of the hallmarks of its achievements. As a prerequisite, teachers on the project had to undergo various forms of training in order to become knowledgeable in the policy requirements and the teaching and learning process. Apart from what teachers studied at Teacher Training Colleges on the language-in-education policy, training for teachers who taught on the project included, “regular on the job training, evaluation workshops, special workshops for introducing new materials, long vacation workshops for text writing and teaching methods, and short

overseas training for specially selected teachers on the project” (Fafunwa *et al.*, 1970:68). An understanding of the language-in-education policy for its effective implementation in the classroom was a major challenge for the P.3 teachers.

Adequate and effective teaching and learning materials were another challenge that confronted teachers in the Language and Literacy classrooms selected for the research. Responses from some of the teachers indicated that they did not have sufficient teaching and learning materials on Language and Literacy. One teacher lamented:

“... the P.3 Language and Literacy (NALAP) Teacher’s Guide we are supposed to be using right now, some of the topics we have do not tally with the old English and Ga Readers that we have, so sometimes if you want to teach the children, you have to write the passage on the board before you can start teaching, and that makes us waste a lot of time.”

(Field data)

Thus, teachers used Ga subject textbooks during the Language and Literacy lessons because GES had not supplied the required Language and Literacy textbooks to the schools.

This was confirmed in all the schools observed. A particular case worth noting was in Independence Avenue ‘A’ Primary School where six pupils were seen sharing a text book as indicated in Figure 23 below.

Figure 24: Independence Avenue 'A' Primary School: Pupils sharing textbooks



In Ebenezer Primary School for instance, the textbooks used during the Language and Literacy Lesson was not enough for the pupils, but they were able to comfortably but shared a text book in pairs (see Figure 24 below).

Figure 25: Ebenezer '5' Primary School: Two pupils sharing a textbook



On the contrary, in Richard Akwei Primary School, the lesson on 'Environmental Protection' was taught without any teaching and learning materials. As seen in the picture, pupils sat with blank faces and listened to

the teacher's "lecture" (see Figure 26 below). In Krashen's (1985) view, children need adequate comprehensible input in order to function properly in a language classroom. If learners have sufficient input for their lessons, the burden of comprehension is made easy.

Figure 26: Richard Akwei Primary School: Pupils without textbooks



The scenario at Adenkrebi Primary School was not different. Even though the class did not have any textbooks for the lesson, the teacher was able to effectively use demonstration method to teach the lesson on prepositions (see Figure 27). The pupils were able to relate to the items he used for the lesson and this made the lesson more interactive. When it was question and answer time, the pupils responded actively to indicate that they understood the lesson. The implication of this is that if teachers could vary their teaching methods when necessary, the teaching and learning process for literacy would be greatly enhanced, and this would also help improve pupils' academic performance

Figure 27: Adenkrebi Primary School - Items used to demonstrate Preposition of Place



(Items used by the teacher: a bottle, a bowl, a napkin, a bag.)

These observations were contrary to the reports from the Assistance to Teacher Education Project ASTEP and the Bridge to English/Break Through to Literacy (BTE/BTL) programmes in some parts of Ghana and Southern Africa. Classroom observations from these programmes recorded pupils sitting and working together in groups, and classrooms were arranged for different types of instructional activities... BTL materials were posted all over the room in what one group of teachers characterized as “talking walls.” (Lipson *et al.*, 2004). As seen Figure 23 & 25, classroom sitting arrangements in the schools visited did not favour any form of flexible group activities. Lessons were taught using traditional methods, and in most cases, with the teacher always holding a cane which is used for corporal punishment when necessary.

Another challenge that teachers face which the research noted was on language preferences for Mol. The issue of language preference for Mol produced significant results (see Table 9). The results of preference for an English Mol was based on the interview with pupils and teachers from the selected schools. It was also noted that in the schools that used an English Mol, the choice of English was a joint decision of the Parent Teacher

Association (PTA) and the schools. According to some teachers, they had instances of parents threatening to transfer, and in some cases actually transferred their children to schools that use an English MoI. This view is supported by Fafunwa *et al*, (1970) during the Six-year Mother-tongue project in Southern Nigeria. It was stated that most parents threatened to "... remove their children from the school if they were put in the Mother Tongue Education project (p.24)." Bamgbose, (1991) and Adegbija (1994) however caution that attitudes such as these, from parents, results a complete negative perception towards Mother-tongue Education. Similar findings from other studies also confirmed that parents advised their children never to speak their mother-tongue in school because they were in school to acquire good education in English (Hart 2008; Muraina & Jibrils, 2011; Khejeri 2014). It was therefore not surprising that the schools/teachers of the five schools selected for the research had no other choice than to promote and use of English throughout the teaching and learning process.

5.8.6 Is there any significant difference in pupils' performance in the use of English language and mother-tongue as mediums of instruction?

The final research question for discussion sought to find out whether the choice of English and mother-tongue, Ga as mediums of instruction significantly affected the academic performance of pupils in P.3. This discussion is guided by the test results and the interview responses from teachers as well as the responses to the challenges that teachers face in the Language and Literacy classroom. As mentioned earlier, this research is based on the premise that pupils' Basic Interpersonal Communication Skills (BICS) representing pupils' conversational language, or mother-tongue. Mother-tongue as noted earlier, is crucially instrumental in the development of pupils' corresponding skills in English which is termed Cognitive Academic Language Proficiency (CALPS). However, the caution is that pupils' mother-tongue should be sufficiently developed, in order for them to reach the threshold prior to their exposure to English (Cummins' 1979; 2001). Based on this premise, it is important that pupils in bilingual classes in the selected schools be exposed to sufficient mother-tongue, Ga, and reach the threshold before experiencing the cognitive benefits from CALPS.

Indications for the research was that pupils in the English medium of instruction classes did not significantly outperform their counterparts in the mother-tongue medium of instruction classes because they do not come from English language background, so had not attained the desired threshold in English. In line with the findings of Eskey (2005), pupils who fall below the threshold, as discussed in session 2.2 of chapter 2, will have difficulty in transferring their mother-tongue cognitive skills to English.

As discussed earlier in the chapter, there are other factors, apart from the choice of medium of instruction, that contribute to the academic performance of pupils. Some of the factors are appropriate textbooks, adequate resources for teachers in literacy skills, and teachers' pedagogical competences to teach both English and mother-tongue. All these are essential for every successful bilingual literacy programme. Some research findings from other studies confirm this. (FaFunwa *et al*, 1970; Lipson *et al.*, 2004; Walter & Chuo, 2012).

To sum up, the comparative analysis from the overall test results in all the literacy components tested in section 5.5.9, indicated that there is no remarkable difference in the literacy performance of P.3 pupils' in both Ga and English mediums of instructions. In a similar research carried out in Namibia, and Tanzania, the findings of Brock-Utne, (2004) implies that learners' success in academic performance in literacy, does not necessarily depend on focusing on the choice of the medium of instruction. The effective and adequate supply and use of teaching and learning materials, classroom environment and management with teacher professionalism are equally essential.

5.8.7 Conclusion

The chapter presented and analysed data collected for the research. The chapter also discussed the outcome of data analysis based on the research questions generated in chapter 1. The five research questions generated for the research were used as a guide for the discussion. The chapter closes on the note that academic performance of pupils in literacy skills does not ultimately depend on the choice of a particular Mol.

The next chapter concludes and provides recommendations for the research.

CONCLUSION AND RECOMMENDATION

6.1 Introduction

This research was undertaken to assess the choice of medium of instruction on pupils' academic performance in literacy at P.3. The chapter presents the final conclusion of the research.

6.2 Conclusion

The main research question was whether a choice of medium of instruction has any effect on pupils' academic achievement in literacy. Based on this main question, five other sub-research questions were generated. The first question was to find out the extent to which the use of English as medium of instruction supported pupils' academic performance in literacy. The second was whether the use of mother-tongue as medium of instruction supported pupils' academic performance in literacy. The third sub-research question tried to determine whether teacher initiated code-switching/code-mixing supported pupils' academic performance in literacy. The fourth sub-research question sought to find out the challenges that teachers faced in the choice of a particular language as medium of instruction. The final sub-research question was to compare pupils' academic performance when English was used as Mol and when mother-tongue was used as Mol. Then, the results were used to find out how this affected pupils' academic performance in literacy in P.3.

In order to find answers to these questions, the research reviewed literature from various sources. The main Theoretical Framework was based on Cummins' Threshold Theory basically establishes that language learners need a balance of both the Basic Interpersonal Communication Skills (BICS) and the Cognitive Academic Language Proficiency Skills (CALPS). In addition, the research reviewed some Second language learning theories, namely, the Behaviourist and the Constructivists. The research then presented and discussed empirical studies from some selected Mother-tongue projects in Southern Africa, Cameroon, Nigeria and Ghana.



Results from these studies showed adequate evidence to conclude that when pupils are taught in a mother-tongue medium of instruction, they are able to learn better and there would be a significant improvement in their cognitive skills, especially in literacy.

Data for the research were obtained from semi-structured interviews, classroom observations, video recordings and class tests on Language and Literacy skills. The results of the analysis of the data revealed that schools that used an English medium of instruction were more than schools that used a mother-tongue medium of instruction. In addition, schools that claimed they use mother-tongue medium of instruction did not have permanent mother-tongue (Ga) class teachers. As a result, the Language and Literacy lessons were supported with other teachers who were more literate in the mother-tongue, Ga. The observations from this practice was that this arrangement was put in place because of the presence of the researcher. Therefore, the presence of the support teachers did very little to improve the teaching and learning process. On the other hand, lessons from the Osu Manhea P.3 were lively and pupils enthusiastically participated in the teaching and learning process. Notably, majority of the pupils understood Ga, the language used as medium of instruction, so the pupils participated actively in the teaching and learning process. As mentioned earlier in the discussion, schools that used English medium of instruction were compelled to do so mainly because of the language diversity of the class, and the inability of the teachers to speak Ga, the approved language of instruction in the Greater Accra region.

In Comparison, using the test results, it was noted that there were no significant differences in pupils' performance in literacy skills when English or Ga was used as medium of instruction in the schools. The conclusion drawn was that there were other pertinent factors that were necessary for pupils to perform creditably in literacy, when they were taught in English or mother-tongue.

The issue of teacher posting is crucial to the successful implementation of the mother-tongue language-in-education policy. In addition there is an urgent need to address the challenges that teachers face in the choice of a particular medium of instruction in P.3 classrooms. The research, thus, established that the

challenges that P.3 teachers face in Language and Literacy classrooms were multifaceted. Firstly, most teachers lacked the requisite pedagogic skills to teach in both English and mother-tongue, and most importantly to teach all the literacy skills as required by the Standards and Milestone document (see appendix B1).

Secondly, the required in-service training that is needed for classroom teachers who teach language at the basic level is not sufficiently provided. In addition, most teachers do not have the required teaching materials to use in class. Apart from these, most of the P.3 classrooms visited were ill-equipped. Space allocation for pupils were inadequate, and most pupils sat uncomfortably in pairs and threes throughout the lessons. As a result of this, teachers were not able to manage their classes very well. In addition, classes were very much teacher-controlled, so there were hardly pupil-initiated questions and responses.

Another notable conclusion drawn from the findings of the research on the implementation of the language-in-education policy was that Colleges of Education have limited curriculum on Ghanaian language instruction. This has implications for teachers. As mentioned earlier, most P.3 teachers in the schools visited were not literate in the mother-tongue prescribed for use as Mol, and this had negative effects on the teaching and learning process. However, the genesis of this problem could be traced to language choices of teacher trainees and the structures put in place for teacher posting. In addition, interviews with head teachers, teachers and parents revealed that negative attitudinal influences have impeded a smooth implementation of the mother-tongue language-in-education policy. Most parents do not want their children to be taught in mother-tongue. Equally, some school authorities and teachers do want to follow the mother-tongue curriculum because they believe that children learn better if they speak English at home and are taught in English. Some pupils interviewed also are of the view that their academic performance will improve if they speak English at home and are taught in English at school.

Finally, the findings of the research goes to reiterate that even though the medium of instruction can affect pupils academic performance in literacy, there are other very important factors, as discussed, that need to be considered for a successful academic performance in literacy in P.3 so that pupils can further have

a smooth transition to an English medium of instruction in Primary Class Four (P.4).



6.2 Recommendations

The language-in-education policy in Ghana has seen several changes since its promulgation in 1925. The policy is still undergoing reviews. 'The Learning Project', another mother-tongue literacy project is currently ongoing in Ghana, and much is yet to be done to achieve a high level of literacy for all lower primary pupils by 2019. However, the issues still remain unresolved. English language is still a preferred medium of instruction across the country. Government policy on language in use in education needs to be clearer and less ambiguous.

6.2.1 Teacher training curriculum and Teacher training workshops

Other issues that need further scrutiny includes a new Literacy Curriculum for all Colleges of Education in Ghana. The new Curriculum should make adequate provision for all the 11 government approved Ghanaian languages, including some dialectal variations of the selected languages. In addition, adequate resources for teachers from the Ghana Education Service (GES) should be made a priority. To support this, lower primary teachers, head teachers, at both district and regional levels, will benefit immensely from regular Language and Literacy workshops.

The role of stakeholders – policy makers, donor agencies, community and religious opinion leaders, material developers, parents and pupils – should be well defined and be made an indispensable part of the implementation of the language-in-education policy.

6.2.2 Monitoring and Evaluation

Ghana Education Service has a Monitoring and Evaluation division which is responsible for an effective implementation of the language-in-education policy. The provision of appropriate resources to enable this division do its work effectively is mandatory. Constant monitoring and evaluation procedures will help teachers to be more conscientious in executing their duties in the classroom. An effective Monitoring and evaluation procedure should extended to those who develop teaching and learning materials for Lower Primary

Classrooms. The Inspectorate Division of the Ghana Education Service should intensify its supervisory roles to cover Colleges of Education and fresh Teacher Trainees. These trainees from the Colleges of Education need constant supervision for at least three years. This will ensure a more effective compliance to the language-in-education policy for a lasting literacy skills improvement for pupils.

6.2.3 Public education

Public education on the language-in-education policy should be enforced. As discussed earlier, for various reasons, parents who send their children to school would want them to be taught in English and not mother-tongue even though research findings still confirm that mother-tongue medium of instruction supports pupils' literacy skills in early years of school, So, if parents are given appropriate education on related research findings on language-use-in-education, they would be able to make better choices for their children. All stakeholders, teachers especially, and parents who live in diverse communities need be educated on the benefits of language diversity especially for early childhood education. Teachers need to become familiar with the application of Second Language theories in the classrooms. It is also important to raise awareness among parents who find their children in schools where English is used as a medium of English, to support early childhood development programmes for their children. The way forward for a more successful language-in-education policy which will strengthen the academic achievement of pupils is to adopt a multilingual language-in-education policy. This will embrace language diversity in the classroom, and prevent language death within the communities and in the home.

6.3 Limitations

Though the outcome of this research, is to a large extent authentic, and could be replicated, it is limited in many ways. The research covered a total of 293 pupils in 8 primary schools in the Greater Accra region of Ghana. As such, it will be unfair to generalize the findings of the research, to every P.3 classroom in Ghana, based on the parameters used. It is expected that every teaching and learning experience has its own peculiar challenges. Apart from the limited scope of the research, the constant presence of the researcher and her team created some

biases, and this undoubtedly, to some extent, affected the outcome of the research. In order to make a greater impact, a comparative longitudinal studies would have been more appropriate, but limited funds and time could not make this possible.

Despite these major limitations, the research attempted to highlight the importance of the choice of how a choice of a particular Mol could affect pupils' academic performance in literacy at P.3. However, the outcome of the research revealed that there are other factors that affect pupils' literacy in their early years of school. In order to arrive at a more appreciable conclusion, further research in this area is required.

6.4 Suggestions for further research

The following areas are recommended for further studies:

- ✓ The efficacy of the mother-tongue language-in-education policy in multilingual lower primary classrooms.
- ✓ A comparative longitudinal research on the benefits of both the Early and Late Exit Models of mother-tongue medium of instruction.
- ✓ An investigation of teacher preparedness to implement the mother-tongue language-in-education policy in lower primary classroom.
- ✓ The use of code-switching/code-mixing as a strategy in multilingual lower primary classrooms.

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APPENDIX A: DATA COLLECTION TOOLS

APPENDIX A1:

INTERVIEW QUESTIONS FOR TEACHERS

Background

1. Name:

2. Sex: Male Female

3. Educational background: Pre Senior Secondary/ High School

Senior Secondary/high School

Tertiary level: University

Polytechnic

Teaching training college

Others:

4. Marital Status: Married

Single

5. How long have you been teaching service? (Number of years)

5b. For how long have you been teaching in this school? (Number of years)

6. What Class(s) do you teach

What subject(s) do you teach

Language background

1. What is your mother- tongue?

.....

2. What language (languages) are you most proficient in?

.....

3. What language(s) do you usually speak?

.....

4. What language is used as medium of instruction in primary class 3 in this school.

.....

.....

..... (show/ give the policy)

5. Are you familiar with the language policy of education?

.....
.....
.....

6. How did you come to know about it?

.....
.....
.....

Language Policy in Education

4. Do you know of the language policy in Education?

Yes No

If **Yes**, what do you know about it?

.....
.....
.....

5. Would you prefer the pupils to be taught in a local language at the kindergarten?

Yes No

If **Yes**, what language would you want your child to be taught in and why?

.....
.....
.....
.....

If **No**, why?

.....
.....
.....
.....

Do you switch to the local language during lessons?

Yes No Sometimes

Any other comment on the language policy?

.....

.....

.....

.....

.....

APPENDIX A2:

Classroom Observational Chart

Observer: _____ **Date:** ____ / ____ / ____
Observed: _____ **Duration:** _____ minutes
School: _____ **Class:** _____
Teacher: _____ **Lesson:** _____

Part A. Basic Class/Lesson Information

A1	Class Size	Total Number Expected: Number in Attendance:
A2	Sex Distribution	Boys: Girls:
A3	Classroom Desk Arrangement	<input type="checkbox"/> Desks in rows <input type="checkbox"/> Desks in Groups <input type="checkbox"/> Desks in Circle
A4	Classroom Seating Pattern	<input type="checkbox"/> Boys segregated from girls <input type="checkbox"/> Boys and girls mixed
A5	Text and Materials (List all materials, novels, texts, etc. used by pupils and/or the teacher)	_____ _____ _____
A6	Comments on use of Text and Materials	_____ _____ _____ _____

Part B. Teacher Interaction

<u>Teacher Professionalism</u>		
B1	Time of reporting to class	_____ : _____ (HH:MM)
B2	Appearance	_____ _____
<u>Classroom management</u>		
B3	Class control:	<input type="checkbox"/> Effective <input type="checkbox"/> Somewhat Effective <input type="checkbox"/> Ineffective
	Comments:	_____

		<hr/> <hr/> <hr/> <hr/>
--	--	-------------------------

Feedbacks		
B4	Teachers' reaction to negative responses (e.g. when pupils did not understand a part of the lesson and the response to their questions)	<input type="checkbox"/> Very Good <input type="checkbox"/> Satisfactory <input type="checkbox"/> Poor
	Additional Comment	<hr/> <hr/> <hr/>
B5	Observed medium of instruction	<input type="checkbox"/> Ghanaian language only <input type="checkbox"/> English language only <input type="checkbox"/> Dual language use
	Additional Comment	<hr/> <hr/> <hr/>
B6	Competence in the use of mother-tongue	<input type="checkbox"/> Very Good <input type="checkbox"/> Satisfactory <input type="checkbox"/> Poor
	Additional Comment	<hr/> <hr/> <hr/>
B7	Competence in the use of English	<input type="checkbox"/> Very Good <input type="checkbox"/> Satisfactory <input type="checkbox"/> Poor
	Additional Comment	<hr/> <hr/> <hr/>



Very Good
 Satisfactory
 Poor

B8	Code switching between mother-tongue and English language	
	Additional Comment	<hr/> <hr/> <hr/>

Part C. Teaching Behaviour

RATING SCALE			
1	2	3	4
Very Good	Satisfactory	Poor	Unacceptable
<p>The teacher evidenced excellent planning and preparation for the lesson, thus demonstrated excellent ability in teaching the lesson.</p> <hr/> <p>The teacher was always clear and sustained focus on the purposes of learning throughout the period.</p> <hr/> <p>The teacher fully engaged pupils during the observation of the demonstration lesson.</p>	<p>The teacher evidenced fair planning and preparation for the lesson, thus demonstrated fair ability in teaching the lesson.</p> <hr/> <p>The teacher was sometimes clear and sustained focus on the purposes of learning throughout the period.</p> <hr/> <p>The teacher partially engaged pupils during the observation of the demonstration lesson.</p>	<p>The teacher evidenced little or no planning and preparation for the lesson, thus demonstrated poor ability in teaching the lesson.</p> <hr/> <p>The teacher was rarely clear and focused on the purpose of learning throughout the period.</p> <hr/> <p>The teacher poorly engaged pupils during the observation of the demonstration lesson.</p>	<p>The teacher evidenced no prior preparation for the lesson, thus demonstrated a lack of ability in teaching the lesson.</p> <hr/> <p>The teacher was unclear and unfocused regarding the purpose of learning throughout the period.</p> <hr/> <p>The teacher demonstrated no ability in engaging pupils during the observation of the demonstration lesson.</p>

		1	2	3	4
C1	Teacher's methodology supported pupils' performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Additional Comment				
C2	Teacher incorporated activities to enhance pupils' performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Additional Comment				

C3	Engaged pupils in active participation during lesson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Additional Comment				
C4	Teacher encourages all pupils to participate in the lesson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Additional Comment				

Part D. Pupils' Observation

		Most (75-100)%	Many (50-75)%	Some (25-50)%	Few (1-25)%	None (0)	
D1	Demonstrated a high level of understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
D2	Participated enthusiastically in the lesson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
D3	Communicated their responses clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
D4	Demonstrated competence in the use of the Ghanaian language medium of instruction in their interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
D5	Demonstrated competence in the use of the English language medium of instruction in their interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
D6	Demonstrated competence in code switching between the Ghanaian and English languages used as medium of instruction in their interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Additional Comment						
<u>Pupils' Non-Verbal Response/Behaviours</u>							
D7	Attentiveness during the lesson (i.e. response to questions, degree of interest in the lesson, number of the pupils involved and enthusiasm)	<input type="checkbox"/> Very Attentive <input type="checkbox"/> Somewhat Attentive <input type="checkbox"/> Not Attentive					
D8	Final Comments:						



University of Venda
Creating Future Leaders

PICTURE DESCRIPTION POSTER





APPENDIX A4

PICTURE DESCRIPTION QUESTIONS (ENGLISH)

Name: Date:

Look at the picture closely. Write five sentences to describe what you see in the picture.

[1]

.....
.....
.....

[2]

.....
.....
.....

[3]

.....
.....
.....

[4]

.....
.....
.....

[5]

.....
.....
.....

READING COMPREHENSION TEXT (ENGLISH)

Louba the little soccer boy



Hello, my name is Louba. I like playing soccer more than anything else in the world.

My dream is to become a famous soccer player, like Toro, who is the best player in our country.

I live in Doumpa, which is part of the capital city called N'Djamena. Life is tough here, but my friends and I practise soccer whenever we can.



I dream too, of having my very own soccer ball.
One day, I asked my father to buy me one on
his way home from work.

“It’s impossible. You know I can’t afford it,” he
replied.

I felt very sad.

Then I had an idea. If I took an old sock and
stuffed it with pieces of cloth, I could make my
own ball. It made a beautiful ball!



READING COMPREHENSION QUESTIONS (ENGLISH)

Name: Date:

READ THE PASSAGE CAREFULLY AND ANSWER THE QUESTIONS THAT FOLLOW

1. Where does Louba live?
.....

2. In which part of the capital city does Louba live?
.....

3. Who is Toro?
.....
.....
.....

4. What is Louba's dream for the future?
.....
.....
.....

5. What is Louba's football made of?.....
6. What is the title of the passage?
.....
.....

7. What do you like about the passage?

APPENDIX A7

READING COMPREHENSION TEXT (GA)

Lauba gbekε nuu bɔɔlotswalɔ lε



Hεloo, migbei ji Louba. Misumɔɔ bɔɔlotswaa fe nɔ fεε nɔ ye je lε mli. Mishwee ji matsɔ bɔɔlotswalɔ kpanaa tamɔ Toro ni tswaa bɔɔlo fe mɔ fεε mɔ ye wɔman lε mli lε.

Miyε N' Djamena manɔtiase lε he ko ni atsεɔ akε Doumpa lε mli.



Shihile wa waa ye bie, shi mike minanemei le tswaa bɔɔlo keji wɔna he gbe.

Mishweo hu ake mi diɛntse mana mibɔɔlo. Gbi ko le, mibi mitse ataa ni ehe bɔɔlo ebaha mi keji eje nitsumo eeba shia le.

“Eban no. Ole ake mibe shika ni mikɛbaahe bɔɔlo,” Etse Ataa to he eke.

Minii fee mɔbo waa. Nɔɔɔ ni mina susumo ko. Mina ake keji miloo mamaiana kewo soosu loo astaagre mli ni mifi naa le, mana mi diɛntse mibɔɔlo.



READING COMPREHENSION QUESTIONS (GA)

Name: Date:
.....

KANE MO SANE LE OJOGBAŊŊ NI OHA HETO NI TSA NŌ

1. Nεgbε Louba γῶῶ?

.....

2. Maŋtiase le nεgbε fâ Louba γῶῶ?

.....

3. Namῶ ji Toro?

4. Namῶ Louba sumῶῶ akε etsῶ wῶsεε?

.....
.....
.....

Mεni akεfee Louba bῶῶlu le?

5. Mεni ji sane le yitso?

.....
.....




6. Mεni osumῶῶ γε sane le he?

.....
.....

PHONIC TEST (GA TESTING TOOLS)

GA TESTING TOOL 1

JEE SHISI KEJE BIE

<p style="text-align: center;">LEVEL 3 Sama</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">mama</td> <td style="width: 33%;">too</td> <td style="width: 33%;">saa</td> </tr> <tr> <td>asa</td> <td>maa</td> <td>ato</td> </tr> <tr> <td>mami</td> <td></td> <td>tao</td> </tr> <tr> <td></td> <td>ama</td> <td></td> </tr> </table> <p>ani kaselb le nye etse enumo ye mli?</p> <p>Hee! kaselb le ye level 3</p>	mama	too	saa	asa	maa	ato	mami		tao		ama		<div style="text-align: center;">  <p>LEVEL 4</p> </div> <p>Ama mami ne</p> <p>Maa sa too le</p> <p>Ato sama ama asa le no.</p> <p>Ani kaselb le nye ekane wiemojuji enyo komei jogbanja?</p>
mama	too	saa											
asa	maa	ato											
mami		tao											
	ama												
<div style="text-align: center;">  <p>Level 2</p> </div> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">m</td> <td style="width: 33%;">a</td> <td style="width: 33%;"></td> </tr> <tr> <td>l</td> <td>s</td> <td>t</td> </tr> <tr> <td>K</td> <td>e</td> <td>o</td> </tr> <tr> <td></td> <td>b</td> <td>u</td> </tr> </table> <p>Ani kaselb le nye ekane enumo ye mli jogbanja?</p> <p>Hee! kaselb le ye level 2</p> <p>Daabi kaselb le ye level 1</p>	m	a		l	s	t	K	e	o		b	u	<div style="text-align: center;">  <p>LEVEL 5</p> </div> <p>Be ko le mami na too ko. Too le bu mama. Mami</p> <p>bi Ama ekee: "Ama, namo too ne?" Ama kee: Maa</p> <p>mo le ye asa le no. Maa tao mami koni ekee le.</p> <p>Maa ke sama ko wo too le toi see. Maa ke Ama to</p> <p>sama le. Sama le tammo ato.</p> <p>Ani kaselb le nye ekane wiemojuji enumo jogbanja?</p> <p>Hee! kaselb le ahi level 5</p> <p>Daabi! Kaselb le ahi level 4</p>
m	a												
l	s	t											
K	e	o											
	b	u											

JEE SHISHI YÂ BIÂ

<p style="text-align: center;">Level 3</p> <p>wonu k���</p> <p>yoo nuu</p> <p>husu sune</p> <p>duku ku�</p> <p>d��� hoso</p> <p>y�se koko</p> <p>H��! kasel� le y� level 3 Ani kasel� le nye ekane 5 jogban�?</p>	<p style="text-align: center;">Level 4</p> <p>Dede mami hoo koko.</p> <p>Koko le sha k�k� ku�.</p> <p>K�k� wo foi koni ek�� papa shi papa be j�m�.</p> <p>Ena nuu k� yoo ko y� j�m�.</p> <p>Ani kasel� le nye ekane wiem�muji (2) jogban�?</p>
<p style="text-align: center;">Level 2</p> <p>s b</p> <p> w k</p> <p>o �</p> <p> h n</p> <p>y u</p> <p> d</p> <p>ani kasel� le ny� ekane 5 jogban� H��! kasel� le y� level 2 Daabi! Kasel� le y� level 1</p>	<p style="text-align: center;">Level 5</p> <p>Be ni Ama ku es�� le ena nuu ko ke yoo ko y�</p> <p>shia. Nuu le y�se ak� Ama enako am�. Yoo le bu</p> <p>mama fef�o ko. Eke mama le eha ekue n�. yoo le</p> <p>jie n� ko eha Ama. Ama da le shi waa.</p> <p>Ani kasel� le nye ekane 5 jogban� H��! kasel� le level 5 Dabi! Kasel� le y� level 4</p>




GA TESTING TOOL 3

JEE SHISHI YÂ BIÂ

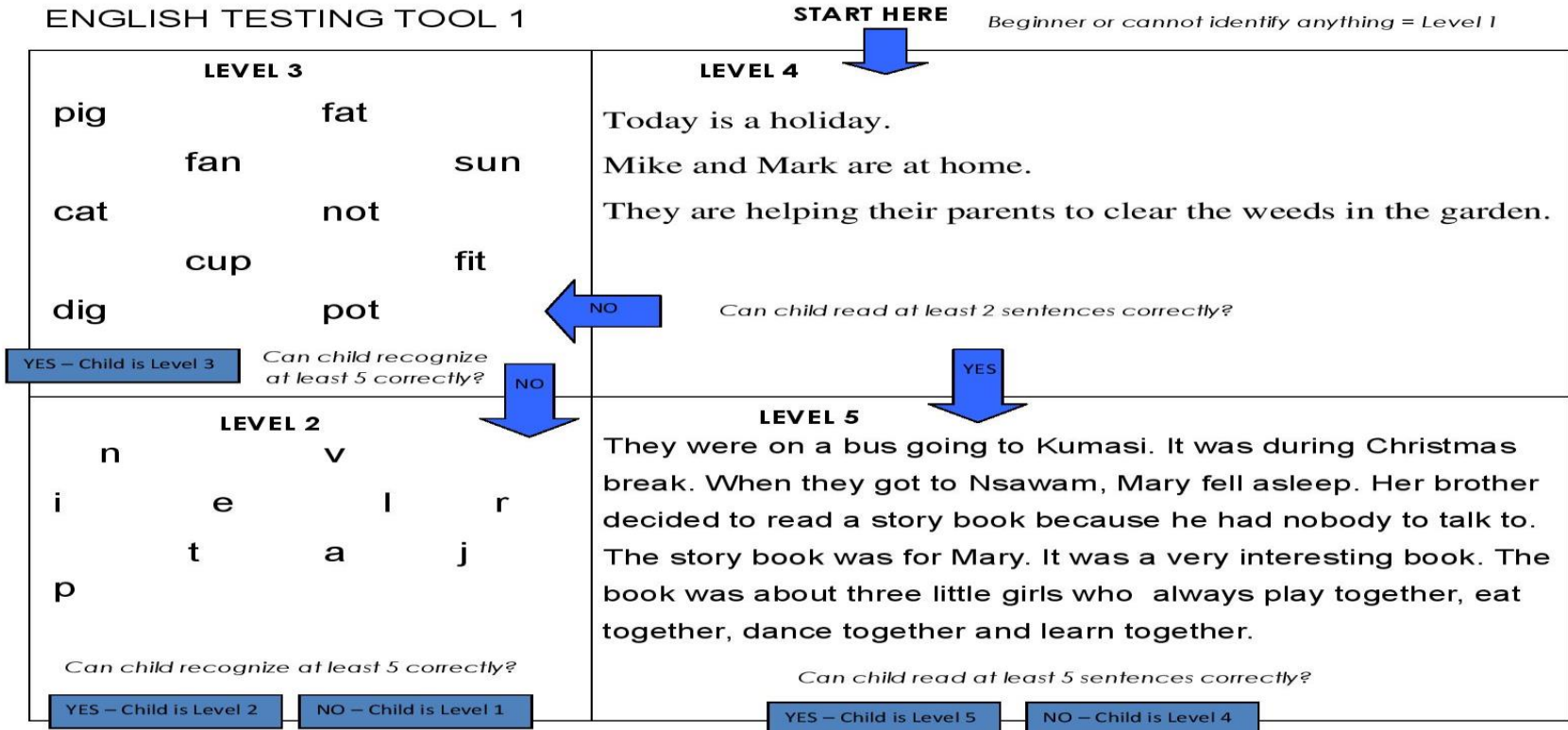
<p>Level 3</p> <p>goga kokoo</p> <p>ɲulami teleŋ</p> <p>jaje bolɔ</p> <p>bɛle veŋŋ</p> <p>atade ziŋle</p> <p>Ani kaselɔ le nyɛ ekane wiemokulibii 5 jogbanŋ Hɛɛ! kaselɔ le ye level 3</p>	<p>Level 4</p> <p>Oko ye nyemi yoo.</p> <p>Atseɔ Oko nyemi yoo le Akwele.</p> <p>Afɔ Oko ke Akwele fee shikome.</p> <p>Ameɣaa sukuu ye Tema.</p> <p>Ani kaselɔ nyɛ ekane wiemokulibii 2 jogbanŋ?</p>
<p>Level 2</p> <p>g j ŋ</p> <p>z e l t</p> <p>v o</p> <p>g</p> <p>Ani kaselɔ le nyɛ ekane 5 ye mli? Hɛɛ kaselɔ le ye level 2 Daabi! Kaselɔ le ye level 1</p>	<p>Level 5</p> <p>Maŋ ko ye Obom see.</p> <p>Atseɔ jeme Okotɔbu</p> <p>Gɔŋ ko ye Okotɔbu see.</p> <p>Aduɔ nibii babao ye gɔŋ le nɔ.</p> <p>Aduɔ abele ke shito ke ameo ye jeme.</p> <p>Aduɔ amadaa ke ahwadu ke zaana fee ye jeme.</p> <p>Ake zaana le loɔ saa, ni ake zaana noŋŋ feɔ bɛle.</p> <p>Ani kaselɔ le nyɛ ekane wiemomuji enumu? Hɛɛ! kaselɔ le ye level 5 Daabi! kaselɔ le ye level 4</p>

GA TESTING TOOL 4

JEE SHISHI YÂ BIÂ

<p style="text-align: center;">Level 3</p> <p>redio plete</p> <p>shito reeki</p> <p>akpakpa</p> <p>falefale agbo</p> <p> ηmene</p> <p>tswa nyemi</p> <p>Ani kaselo le nye kane 5 ye mli? Hee kaselo le ye level 3</p>	<div style="text-align: right;"></div> <p style="text-align: center;">Level 4</p> <p>Akpakpa fata nibii ni ayeo le he.</p> <p>Akpakpa agbo tsuo tamō wuofō.</p> <p>Akpakpa ηoo tamō sikli.</p> <p>Esa akε ofō akpakpa he dani oye.</p> <p>Ani kasele le nye ekane wiemomuji 2 jogbanη?</p>
<div style="text-align: right;"></div> <p style="text-align: center;">Level 2</p> <p>r p</p> <p>sh gb kp</p> <p>f j</p> <p>tsw ny ηm</p> <p>Ani kaselo le nye ekane 5 ye mli? Hee kaselo le ye level 2 Daabi kaselo le ye level 1</p>	<div style="text-align: right;"></div> <p style="text-align: center;">Level 5</p> <p>ηmene sohaa hewo le nyehaa wōlaa lala ko. Keji</p> <p>atswa ηmele le wōbaaje shishi. Hii le baala lala</p> <p>le. No see le wōbaabo redio le toi. Keji redio le</p> <p>gbe naa le wō fεε wōbaaje kpo koni woyala ye</p> <p>jeme. Ani osumoo ni ola lo? Mo ni baakpe see</p> <p>keje kpo le ahaaa le tofi le eko.</p> <p>Ani kaselo le nye ekane 5 ye mli? Hee kaselo le ye level 5 Daabi! Kaselo le ye level 4</p>

APPENDIX A10: PHONIC TEST (ENGLISH TESTING TOOLS)












ENGLISH TESTING TOOL 2

START HERE

Beginner or cannot identify anything = Level 1

<p>LEVEL 3</p> <p>book ball</p> <p> soup crab</p> <p>goat flat</p> <p> knee face</p> <p>tree salt</p> <p>YES – Child is Level 3</p> <p>Can child recognize at least 5 correctly?</p>	<p>LEVEL 4</p> <p>I started crawling when I was three months old. I started walking when I was six months old. Some children start to walk after one year. My mother told me so.</p> <p>NO</p> <p>Can child read at least 2 sentences correctly?</p>
<p>LEVEL 2</p> <p>p v</p> <p>m t u y</p> <p> o a z</p> <p>w</p> <p>Can child recognize at least 5 correctly?</p> <p>YES – Child is Level 2</p> <p>NO – Child is Level 1</p>	<p>LEVEL 5</p> <p>Many children are in school today. Fatima is also in school. The name of their school is St. Mary's Primary. There are two hundred and fifty children in the school. Boys are one hundred. Girls are one hundred and fifty. The school is a mix school. Both boys and girls learn together.</p> <p>YES</p> <p>Can child read at least 5 sentences correctly?</p> <p>YES – Child is Level 5</p> <p>NO – Child is Level 4</p>



ai ay		a-e	ee		ea	ie igh		y i-e
oa ow		o-e	ue ew		u-e	er ir		ur
or au		al aw	oi		oy	ou		ow

APPENDIX B: TEACHING AND LEARNING MATERIALS

APPENDIX B1:

STANDARDS AND MILESTONES

Standards state what pupils should know and be able to do, and milestones state steps along the way to reaching the standards. In 2006, the GES finalized Literacy Standards and Milestones for reading and writing for primary school. Standards and milestones for listening and speaking were later drafted to serve as the basis for designing the English as a Second Language lessons in Let's Read and Write and finalized by GES in 2008.

Reading Standard One

A reader uses knowledge, skills, and techniques (e.g. skimming, scanning) to read.

Reading Standard Two

A reader uses knowledge, skills, and techniques of reading to understand, interpret, and appreciate a variety of literary texts.

Reading Standard Three

A reader uses knowledge, skills, and techniques of reading to understand, interpret, and appreciate a variety of informational texts (e.g. newspapers, magazines, etc.).

Writing Standard One

Proficient writers use the general skills and strategies of the writing process to communicate meaningfully.

Writing Standard Two

Proficient writers use knowledge, skills, and techniques to write literary forms (stories, poetry, drama, etc.).

Writing Standard Three

Proficient writers use knowledge, skills, and techniques for informational (non-fiction, academic, research, biography, newspapers, etc.) writing.

Writing Standard Four

Proficient writers use grammatical and mechanical conventions in written composition (e.g. punctuation, capitalization, etc.).

Writing Standard Five

Proficient writers use writing skills for research purposes.

Listening and Speaking Standard One

Listeners and speakers use knowledge of language and the world, together with communicative skills, to participate in everyday talk (e.g. using language to communicate in context and dealing with communicative difficulties).

Listening and Speaking Standard Two

Listeners and speakers use knowledge of language and the world, together with communicative skills, to participate in school talk (e.g. recognizing and talking

about main ideas from a story; discussing facts and details from informational resources).

Listening and Speaking Standard Three

Listeners and speakers understand and use vocabulary and grammar to express different meanings. Each of the standards has milestones identified at two grade bands: KG1-P1 and P2-P3. and across common skill components. The components state specific areas of knowledge and abilities for the standards. Often the same components appear across the grade bands because pupils are expected to continue developing skills and knowledge in that area. However, in some cases a component is added or removed after the first grade band. The Listening and Speaking standards reflect goals for learning oral language in English and Ghanaian languages by learners whose language is different from the school language. Learners whose school language is also their first language will reach these standards and milestones earlier than learners whose language is different from the school language.

These standards and milestones were based on the GES Literacy Standards and Milestones Working Group in 2005. They are based on current research on second language listening and speaking.

The following table lists the milestones, indicating the grade level(s) where each is addressed with the Let’s Read and Write curriculum.

Milestones		KG1	KG2	P1	P2	P3.
READING COMPONENTS						
1. Print Concepts: Pupils should:						
	1.1 Know that print and written symbols convey meaning and represent spoken language.	GE	GE	GE		

	1.2 Know that print is read from left to right and (top to bottom), and recognise familiar print in the environment (e.g. labels, traffic signs, logos, such as those for vehicles and TV stations etc.).	GE	GE	GE		
	1.3 Know that books have titles, authors, and often illustrators.	G	G	G		
	1.4 Know the proper way to handle books (i.e. hold the book upright; turn pages from front to back, one at a time).	GE	GE	GE		
2. Phonological Awareness:						
2.1	Know about the sounds words have, apart from their meaning for example, know about GE GE E syllables (e.g. “kitchen” has two syllables); know about rhymes (e.g. “bed” and “bread”); recognise similar starting sounds (e.g. “cat” and “king”).			GE	E	
3. Decoding and Word Analysis:						
	3.1 Recognise and produce letters, and differentiate them from numbers and shapes.	GE	GE	GE		
	3.2 Know the letters of the alphabet in order.	G	GE	GE	E	E
	3.3 Understand the relationship between spellings of words and sounds of speech.	GE	GE	GE	GE	GE
	3.4 Use this understanding to decode unknown words (e.g. use beginning and ending consonants, consonant blends, consonant digraphs, vowel sounds, vowel digraphs, and word patterns).			GE	GE	GE
	3.5 Use basic elements of structural analysis (e.g. syllables, basic prefixes, suffixes, root words, compound words, spelling patterns, contractions) to decode unknown words.				GE	GE
4. Vocabulary:						
	4.1 Know some sight words, such as own name.	GE	GE	GE	GE	GE
	4.2 Understand level-appropriate sight words and vocabulary (e.g. words for persons, places, things, actions; high frequency words such as “said,” “was,” and “where”).	GE	GE	GE	GE	GE
	4.3 Use a variety of context clues to comprehend unknown words (e.g. draw on earlier reading, read ahead).	GE	GE	GE	GE	GE
	4.4 Use a picture dictionary to determine word meaning.	G	GE	GE	GE	GE
5. Fluency:						
	5.1 Start developing fluency in reading. Read aloud familiar stories, poems, and passages with fluency and expression (e.g. rhythm, tempo, intonation).			GE	GE	GE
6. Comprehension:						
	6.1 Use pictures and prior knowledge to aid comprehension and predict story events and outcomes.	G	G	GE	GE	GE

6.2 Know the elements of a story (e.g. characters, plot, events, setting).	G	G	GE	GE	GE
6.3 Know the sequence of events (e.g. beginning, middle, and end) in a story.	GE	GE	GE	GE	GE
6.4 Respond to stories by relating them to their own experiences.	G	G	GE	GE	GE
6.5 Understand the literal meaning of plays, poems, and stories.	GE	GE	GE	GE	GE
6.6 Know the difference between fact and fiction, real and make-believe.	G	G	G	GE	GE
6.7 Become familiar with characteristics of informational texts and distinguish these from narrative texts (e.g. notice headings and subheadings, captions, text matched to illustrations, etc.). Use these features to anticipate text content and meaning.					GE
6.8 Connect meaning built from text read orally with illustrations or diagrams in text.	GE	GE	GE		
6.9 Build understanding of text read orally, and ask and answer questions about it.	GE	GE	GE		
6.10 Use background knowledge to understand and build new knowledge from text (e.g. use experiences with nature when listening to texts about particular animals or plants).	G	G	GE	GE	GE
6.11 Use meaning/text clues (e.g. pictures, captions, title, cover, headings, story structure, story topic) to aid comprehension by forming mental images and making predictions about content (e.g. action, events, characters' behavior).	GE	GE	GE	GE	GE
6.12 Use self-correction strategies (e.g. search for cues, identify mistakes, reread, ask for help).				GE	GE
6.13 Read short passages and answer questions.			GE	GE	GE
6.14 Understand main characters in stories: basic characteristics, motivations, and problems they run into.			GE	GE	GE
6.15 Understand the concept of themes (e.g. honesty, friendship etc.) and main events in a story.				GE	E
6.16 Respond to stories with opinions, value judgments, inferences, and links to his/her own experiences.		GE	GE	GE	E
6.17 Understand and appreciate a variety of familiar literary forms and genres such as fairy tales, folktales, fiction, nonfiction, legends, fables, myths, poems, and so forth.		GE	GE	GE	GE
6.18 Read a variety of informational/expository texts with different purposes (e.g. read to follow directions); read to be informed (e.g. signs, warning labels); read to expand understanding (e.g.			GE		E

	captions); read to gain knowledge from informational books, such as science and environmental studies books.				
6.19 Understand the main idea and supporting details of simple expository text (e.g. making a kite).			GE	GE	GE

	6.20 Use reading strategies such as summarization, questioning, and graphic organizers before, during, and after reading to construct and revise meaning made from text.			GE	GE	GE
	6.21 Relate new information to prior knowledge and experience.	GE	GE	GE	GE	E
WRITING COMPONENTS						
7. Writing Concepts:						
	7.1 Know that oral stories can be conveyed in written form.	GE	GE	GE	GE	GE
	7.2 Know that pictures, letters, and words communicate meaning.	GE	GE	GE		
	7.3 Use pictures, symbols, letters, and words to communicate.	GE	GE	GE	GE	GE
	7.4 Dictate stories, poems, and personal narratives.	G	G	GE	GE	GE
	7.5 Uses knowledge of letters to write or copy familiar words, such as own name.	G	GE	GE	GE	GE
	7.6 Use writing tools and materials (e.g. pencils, crayons, chalk, markers, rubber, cocoyam, cassava, yam, or potato stamps; computers; paper; cardboard; chalkboard).	GE	GE	GE	GE	GE
	7.7 Space out letters in words and words in sentences.	G	GE	GE	GE	GE
8. Preparing to Write:						
	8.1 Discuss ideas with peers and draw pictures to generate ideas.	G	GE	GE	GE	GE
	8.2 Write key ideas and questions and revise.				GE	GE
	8.3 Identify the purpose for writing (e.g. writing a card) and the intended audience (e.g. grandmother).				GE	GE
9. Drafting and Revising:						
	9.1 Write, reread, rearrange words, sentences, and paragraphs to improve and clarify meaning.				GE	GE
	9.2 Vary sentence types, add descriptive words and details, and delete extraneous information.				GE	GE
	9.3 Incorporate suggestions from peers and teachers; sharpen the focus of sentences.				GE	GE
	9.4 Use strategies to organise written work (e.g. include a beginning, middle, and ending).				GE	GE

10. Editing:						
	10.1 Edit for grammar, punctuation, capitalisation, and spelling at a developmentally appropriate level.				GE	GE
	10.2 Incorporate drawings that enhance the meaning of written pieces, if relevant.				GE	GE
	10.3 Evaluate own and others writing (e.g. ask questions and make comments about writing, help classmates apply grammatical and mechanical conventions).				GE	GE
	10.4 Proofread using a dictionary and other resources.					
11. Publishing:						
	11.1 Finish writing products and share them with an audience (e.g. read written piece to teacher, parents, classmates, etc.).				GE	GE
12. Using Descriptive Language:						
	12.1 Use descriptive words to convey basic ideas (e.g. I have a blue ball).	GE	GE	GE	GE	GE
	12.2 Write short descriptions of people, objects, places, and animals.				GE	GE
13. Writing Various Forms:						
	13.1 Use declarative and interrogative forms to make meaningful sentences.	G	GE	GE	GE	GE
	13.2 Use a variety of sentence structures in writing.				GE	GE
	13.3 Write simple rhymes, poems, and stories.				GE	GE
14. Kinds of Informational Writing:						
	14.1 Create simple lists and charts (e.g. fruits, vegetables).				GE	GE
	14.2 Write names (labels) of familiar objects, people, and activities.				GE	GE
	14.3 Write simple directions (e.g. how to make and fly a kite, prepare certain foods, direct another person to places outside of the classroom).				GE	GE
	14.4 Record events (e.g. keep a diary).				GE	GE
	14.5 Write simple autobiographies and biographies.				GE	GE
	14.6 Write descriptions of familiar topics (e.g. animals, trees, food, community, etc.).				GE	GE
	14.7 Create tables.				GE	GE
	14.8 Write friendly/informal letters (e.g. include the date, address, greeting, body, closing, and first name); address envelopes.				GE	GE

15. Grammar:						
15.1	Apply basic rules of grammar (e.g. subject/verb agreement).			GE	GE	GE
15.2	Write complete sentences.			GE	GE	GE
15.3	Correctly use various parts of speech: <ul style="list-style-type: none"> • Nouns: (e.g. names for familiar objects). • Verbs: (e.g. verbs for a variety of situations, action words). • Adjectives: (i.e. descriptive words). • Adverbs: (i.e. words that answer how, when, where, and why questions). 				GE	GE

15.4	Pay attention to subject/verb agreement.				GE	GE
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16. Spelling:

16.1	Use phonic knowledge to spell simple words.		GE	GE	GE	GE
16.2	Use conventions of spelling in written compositions, including correct spelling of high frequency words, commonly misspelt words, and other words appropriate for the grade level.				GE	GE
16.3	Use letter/sound relationships in spelling.		GE	GE	GE	GE
16.4	Spell consonant blend patterns correctly.				GE	GE
16.5	Use a dictionary.				GE	GE

17. Capitalisation:

17.1	Follow appropriate mechanical conventions (e.g. use of lower and upper case letters).			GE	GE	GE
17.2	Use the conventions of capitalisation (e.g. first and last names, first word in a sentence).			GE	GE	GE

18. Punctuation:

18.1	Use appropriate punctuation (e.g. a period at the end of the sentence).			GE	GE	GE
18.2	Use appropriate punctuation, including, <ul style="list-style-type: none"> • Full stop after declarative sentences. • Question marks after interrogative sentences. • Commas in a series of words. 			GE	GE	GE

19. Conventions of Print:

19.1 Write from left to right, top to bottom.	G	GE	GE		
19.2 Write clearly and legibly.		GE	GE	GE	GE

20. Uses of Research Materials:

20.1 Explore and investigate the local environment and make a list or label objects in that environment.			GE	GE	GE
20.2 Use a variety of sources to gather information (e.g. books, televisions programs, pictures, charts, observation, interviews, and resource people).				GE	GE

21. Planning for Research:

21.1 Write questions about topics of personal interests (e.g. health, parts of the body, food, animals).				GE	GE
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22. Presenting Research:

22.1 Draw objects observed and label the drawings	G	GE	GE	GE	GE
22.2 Record information from sources and write a short description of it.			G	GE	GE

LISTENING AND SPEAKING COMPONENTS
23. Sound Production and Discrimination: Children should:

23.1 Begin to produce and discriminate distinctive sounds.	GE	GE	GE		
23.2 Begin to understand speech containing pauses, errors, and speakers' self-correcting.	GE	GE	GE		
23.3 Produce and discriminate a wider range of distinctive sounds of the school languages.			GE	GE	GE
23.4 Understand a wider range of speech containing pauses, errors, and speakers' self-correcting.				GE	GE

24. Vocabulary:

24.1 Recognize and use meaningful chunks of language of different lengths (e.g. "May I have "; "I want to __")	G	GE	GE	GE	
24.2 Recognize and use frequently occurring content words (e.g. "father," "eat," "food").	G	GE	GE	GE	

24.3 Recognize and use simple instructional language (e.g. “match,” “copy,” “slowly”).	G	GE	GE		
24.4 Recognize and use words related to core topics and activities from the curriculum (e.g. weather—“cloud,” “wet,” “rains”).	G	GE	GE	GE	
24.5 Understand and use many of the most frequently occurring words and chunks in the language(s) (including both content words [nouns, verbs, adjectives, and adverbs] and function words [prepositions, articles]).	G	GE	GE	GE	GE
24.6 Recognize and use an increased number and range of meaningful chunks of language of different lengths (e.g. “I don’t know if __”; “I think that __”; “I’ve got to __”).				GE	GE
24.7 Recognize and use an increased number of content words.				GE	GE
24.8 Recognize and use borrowed words in appropriate ways (e.g. Ghanaian Languages ‘bus,’ ‘cup,’ ‘blue,’ ‘kick’)				GE	GE
24.9 Know and use general school language (e.g. “ring the bell,” “assembly,” “describe,” “list”).	G	GE	GE	GE	GE
24.10 Know and use a wider variety of words and phrases relating to different lessons (e.g. names of towns and villages nearby, “in the library”).			GE	GE	GE
24.11 Understands an increasing range of words and chunks and how to use them to express different kinds of meaning.			GE	GE	GE
25. Comprehension and Communication:					
25.1 Participate in communication in simple and often ungrammatical language		GE	GE	GE	GE
25.2 Use background knowledge to understand and convey meaning.	G	GE	GE	GE	GE
25.3 Initiate talking and respond to talking during conversation.	G	GE	GE	GE	GE
25.4 Use private speech as a learning strategy.		GE	GE	GE	GE
25.5 Understand and express a number of basic communicative meanings (e.g. greetings; expressing likes and dislikes; responding to and giving commands and requests, and asking and answering questions).	G	GE	GE	GE	GE
25.6 Recognize and use appropriate facial expression, gestures, and body movements that convey meaning.	G	GE	GE	GE	GE
25.7 Recognize and use stress, rhythm, and intonation that convey meaning.	G	GE	GE	GE	GE
25.8 Recognize and use basic word order patterns that convey meaning.	G	GE	GE	GE	GE
25.9 Address communicative problems by clarifying or seeking clarification (e.g. through repetitions and asking questions).	G	GE	GE	GE	GE
25.10 Understand and reproduce a simple text that has been memorized (e.g. sings songs, recites rhymes).		GE	GE	GE	

25.11 Recognize and relate the sequence of events (e.g. beginning, middle and end) in stories and dramas.	G	GE	GE	GE	GE
25.12 Recognize and discuss elements of a story (e.g. characters, setting, and moral).	G	G	GE	GE	GE
25.13 Recognize and discuss the difference between real and make- believe in a story, rhyme, or song.	G	GE	GE	GE	GE
25.14 Use background knowledge to understand and build new knowledge (e.g. use experiences when listening to texts about particular animals or plants).	G	GE	GE	GE	GE
25.15 Listens to and produces descriptions of pictures and objects (e.g. animals, vehicles).	G	GE	GE		
25.16 Share facts and solve problems with a partner, a small group, or the teacher.	G	GE	GE	GE	GE
25.17 Participate in communication using more varied and more accurate language.			GE	GE	GE
25.18 Use an increased body of background knowledge to understand and communicate.			GE	GE	GE
25.19 Recognize and use a variety of word order patterns meaningfully.				GE	GE
25.20 Expresses a greater variety of communicative meanings (e.g. apologizing, agreeing and disagreeing).				GE	GE
25.21 Address an increased range of communicative problems by clarifying or seeking clarification (e.g. through rewordings and repetitions) in everyday talk.				GE	GE
25.22 Talk about events that occurred at a different time and place.				GE	GE
25.23 Recognize and discuss the motivation of the main characters in stories (e.g. identifies cause and effect).				GE	GE
25.24 Recognize and discuss the central problem in a story and how it is solved.				GE	GE
25.25 Recognize and discuss the themes (e.g. friendship) in a story.			GE	GE	GE
25.26 Listen to and discuss different types of oral literature (e.g. folktales, rites [such as outdoorings], poems, and dramas).				GE	GE
25.27 Participate in dramas, recitations, and chorus readings.				GE	GE
25.28 Listen to and give directions (e.g. how to get from one place to another).				GE	GE
25.29 Listen to and produce descriptions of processes (e.g. making a toy car).				GE	GE
25.30 Listen to and give instructions (e.g. how to make banku)					GE
25.31 Listen to and give a report (e.g. of an accident, such as falling down or cutting a finger).				GE	GE
25.32 Answer questions by listening for specific information.		GE	GE	GE	GE
25.33 Address an increased range of communicative problems by clarifying or seeking clarification (e.g. through rewordings) in school talk.				GE	GE
25.34 Listen to and tell the story of someone's life (e.g. describing people they know and like)				GE	GE

25.35 Narrate events from personal experience				GE	GE
25.36 Take risks to experiment with language (i.e. does not fear or feel shy to make mistakes).				GE	GE
25.37 Work collaboratively and independently to plan communicative events (e.g. a class talk or a simple interview).				GE	GE
26. Grammar:					
26.1 Understand and use basic word order to express meaning in everyday language.	G	GE	GE	GE	GE
26.2 Use a number of grammatical structures but often ungrammatically (e.g. different verb forms).	G	GE	GE		
26.3 Understand and use different word orders in order to distinguish meanings (e.g. statements versus questions).				GE	GE
26.4 Begin to use a range of grammatical structures accurately to express meaning.				GE	GE
26.5 Develop an awareness of what is grammatical and ungrammatical in language use.				GE	GE

APPENDIX B2: TEACHER'S CLASS NOTES (LANGUAGE AND LITERACY LESSON)

Week Ending... 11/11/2016

Nyensa ... wo Kanes Pupils bk3

Subject: Language and Literacy

Reference: An Integrated Approach to Language and Literacy bk 3

Day / Duration	Topic/sub-Topic/Aspect	Objectives/R.P.K	Teacher - Learner	Activities	Teacher Learning Materials	Core Points	Evaluation and Remarks
Monday 7/11/2016	ASPECT Listening and Speaking	By the end of the lesson, the pupil will be able to read about Malaria	Ellicit from pupils know about malaria eg Why are mosquitos why do we sleep traste a pet. Ask pupils if they had malaria	What they before enemy water have ever they are text about the character Say them Simple words	TLM: Word cards Sentence cards	What is Malaria? Menigi Abridii?	Pupils in bk3 read about the passage.
	TOPIC UNIT 7	Malaria Read and answer questions about the text R.P.K Pupils can describe certain illness that affects people eg cholera, Malaria	Tell pupils that going to read a Malaria Write new words on and have pupils after you Ask pupils to form sentences with the			What happens when you have malaria Acquisition of New words illness, infected, blood traste net, parasite Testing pupils ability to form New words with the words.	
Tuesday 8/11/2016	ASPECT Reading GAMES	read and answer questions about the text unit 7 Torty KE Abridii	Ask pupils "meni KE Discuss with the class given Read aloud the passage and ask pupils to identify the sentences that contains the correct answers Iskoo the procedure above and take pupils through the second half of the story Pupils describe what brings Malaria	abridii base? the answers ask pupils that contains Suggested through the story the board the text sentences the correct answers		Meni KE abridii base? Testing for correct pronunciation Reading aloud Testing for comprehension	Pupils read and bring out sentences with the correct answers


APPENDIX C: CORRESPONDANCE

APPENDIX C1:

LETTER OF INTRODUCTION

GHANA EDUCATION SERVICE

In case of reply the
Number and date of this
Letter should be quoted



REGIONAL EDUCATION OFFICE
P. O. BOX M.148
ACCRA

My Ref: GES/GAR/HRMD/OL/2016/56
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12th October, 2016

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LETTER OF INTRODUCTION
MRS. MARGARET AMA ANSRE

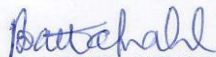
I write to introduce the above-named researcher who is a PHD student of the Department of English at the University of Venda in South Africa.

Mrs. Margaret Ama Ansre has been granted permission by the Director, CRDD to conduct a research on the topic "*Assessment of the medium of instruction on pupils' academic performance in literacy: a case study of selected Primary 3 pupils in the Greater Accra Region.* She will have the research in the under-listed schools in the Region:

1. Independence Avenue 'A' Primary School
2. Ebenezer Primary School
3. Richard Akwei Primary School
4. Calvary Methodist Primary School
5. Kwabenya Primary School
6. Abokobi Primary School
7. Adenkreb Primary School
8. Ghana Education Service Model Primary School, Osu. - *Manheha*.

By a copy of this letter, the Circuit Supervisors, Head Teachers and Primary three (3) teachers of the selected schools are to assist the Researcher to collect data required for her study.

Thank you.


MR. PETER ATTAFUH
DIRECTOR OF EDUCATION
GREATER ACCRA REGION

Cc: The Director, CRDD, GES-Headquarters, Accra.


APPENDIX C2: LETTER OF CONSENT FOR PARENTS/ GUARDIANS

University of Wisconsin

P.O. Box LG 571

North Legon, Accra

Ghana

November 5, 2015

Dear Parent or Guardian:

I am a PhD graduate student, at the University of Venda in the Faculty of Social Sciences and Humanities in South Africa. My study requires a questionnaire, an observation of class lessons, and testing. Information is needed from these three activities to support my topic: **Assessment of the Medium of Instruction on Pupils' Academic Performance in Literacy: A study of Selected Lower Primary Schools in Ghana.** The study covers selected Primary Class Three (P3) multilingual and monolingual public schools in the Greater Accra Region of Ghana. The purpose of the questionnaire is to get information on the language background of the pupils in P3. Information on the class observation and the tests will help interpret the teaching and learning process, as stipulated the language in education in Ghana, in a typical P3 classroom. I am therefore requesting permission from you to allow your child help fill in the questionnaire, as well as take part in the class observation and the class tests. The questionnaire will be administered with the help of the Researcher/Class teacher, and it will take approximately 15 minutes of your child's time. The class observation and the tests will be done as normal class activities. I guarantee that all information gathered in these two activities is strictly confidential, and will be used

only for the purpose of the study. Participation is voluntary and you may withdraw your child at any time. Your child may decline to answer any individual question or even decline to continue with the activity, and this will be understood.

The results of the questionnaire and the outcome of the class lessons observation will be made available to you upon request. All audio or video recordings made during the interview, they will be held in a secure location and destroyed upon completion of the study.

The findings of this study will be published in a thesis and journal articles and/or conference presentations, but neither your child nor her/his school will be named. In case you have any questions or concerns, please do not hesitate to contact me through the class teacher of your child or ward.

If you are in agreement with having your child participate in this study, please sign below.

Please find attached copies of the questionnaire and the class observation chart.

Yours sincerely,

Margaret Ansre (Mrs)

I agree that my child/ward be part of these activities as explained above.

Full name of parent(s)/Guardian(s):

Signature of parent(s)/Guardian(s): Date:

QUESTIONNAIRE FOR PUPILS

This is a questionnaire designed to support a study on the topic: **Assessment of the Medium of Instruction on Pupils' Academic Performance in Literacy: A study of Selected Lower Primary Schools in Ghana.** The study covers selected Primary Class Three (P3) multilingual and monolingual public schools in the Greater Accra Region of Ghana. Kindly assist in completing the following questions. Your co-operation will be very much appreciated. Thank you.
Questionnaire for the pupils will be administered with the help of the Researcher/Class teacher/Parent(s)

PUPIL'S LANGUAGE BACKGROUND

1. Where do you come from? (What is your ethnic group?)
2. State your gender. Male Female
3. How old are you?
4. Which language (s) can you speak?
 - a. Most proficient.....
 - b. Less proficient
 - c. Least proficient.....
5. What language(s) do you speak at home with:
 - a. Your guardian/father?
 - b. Your guardian/mother?
 - c. Siblings?
 - d. Friends at home?
 - e. Other members of the house?
 - f. Other members of the community?
6. What language(s) do you speak with your friends at school?
.....
7. a. Which language is mostly spoken in your community?
- 7 b. Would you like your teacher to use this language (mentioned in 7a) in teaching lessons in class?
Yes []
No []
- 7 c. Give reasons for your choice

<p>8. a. Would you prefer your teacher to teach some subjects in another language? Yes [] No []</p>	
<p>8 b. If yes, specify the subject and language:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>8 b. If no, give reasons</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>8 c. Give reasons</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	

10. What other information would like to give concerning the language that the teacher uses in teaching in class?

.....

.....

.....

CLASSROOM OBSERVATIONAL CHART

Observer: _____
Observed: _____
School: _____
Teacher: _____
Date: ____/____/____
Duration: _____ minutes
Class: _____
Lesson: _____

Part A. Basic Class/Lesson Information

<p>A1 Class Size</p> <p>A2 Sex Distribution</p> <p>A3 Classroom Desk Arrangement</p> <p>A4 Classroom Seating Pattern</p> <p>A5 Text and Materials <i>(List all materials, novels, texts, etc. used by pupils and/or the teacher)</i></p> <p>A6 Comments on use of Text and Materials</p>	<p>Total Number Expected: _____</p> <p>Number in Attendance: _____</p> <p>Boys: _____</p> <p>Girls: _____</p> <p><input type="checkbox"/> Desks in rows</p> <p><input type="checkbox"/> Desks in Groups</p> <p><input type="checkbox"/> Desks in Circle</p> <p><input type="checkbox"/> Boys segregated from girls</p> <p><input type="checkbox"/> Boys and girls mixed</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
--	---

Part B. Pupils' Observation

<i>Percentage of pupils who:</i>		Most (75-100)%	Many (50-75)%	Some (25-50)%	Few (1-25)%	None (0)	N/A
B1	Demonstrated a high level of understanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B2	Participated enthusiastically in the lesson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B3	Communicated their responses clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B4	Demonstrated competence in the use of the Ghanaian language medium of instruction in their interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Very Good</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Satisfactory</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Poor</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B5	Demonstrated competence in the use of the English language medium of instruction in their interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Very Good</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Satisfactory</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>Poor</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B6 Demonstrated competence in code switching between the Ghanaian and English languages used as medium of instruction in their interaction

Very Good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pupils' Non-Verbal Response/Behaviours

B7 Attentiveness during the lesson
(i.e. response to questions, degree of interest in the lesson, number of the pupils involved and enthusiasm)

- Very Attentive
- Fairly Attentive
- Not Attentive

B8 Comments:
