

UNIVERSITY OF GHANA, LEGON

**CODE-SWITCHING BY KINDERGARTEN TEACHERS IN SELECTED
SCHOOLS IN THE DORMAA MUNICIPALITY.**

By

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DECLARATION

I, George Atiemo, hereby declare that apart from the acknowledged references cited, this thesis is the result of my own research. It has neither been partly or wholly submitted for the award of another degree elsewhere.

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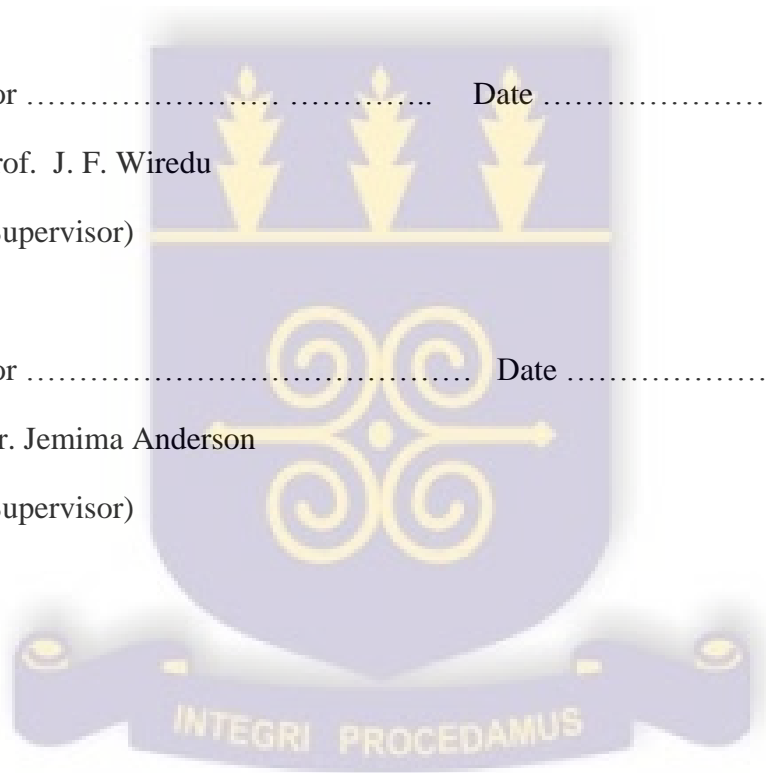
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DEDICATION

To my daughter, HettyYaa Atiemo, my mother AkuaAfriyie and my late father Mr.

Bitam Laar (DJ Mako Hyerawa)



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ABSTRACT

Several studies have been conducted in educational settings in Ghana and other parts of the world regarding the linguistic behaviour of teachers, and the implication of such behaviour on the learning outcome of the pupils they teach. In Ghana, where English is learned as a second language, most teachers are unaware of how and when to use code-switching as an L1 resource in their teaching. This situation negatively affects uniformity in instructional procedures. While the use of code switching in academic settings is still a relatively new area of research, it must be mentioned that such studies in Ghana have always neglected the pre-school levels of our educational system. Since code-switching is not an acceptable practice in our schools, the goal of this study is to find out if pre-school teachers use code-switching in their interaction with their pupils, and if they do; their motivation for employing such code choice. The study is conducted with the pool of 418 pupils and 25 teachers in the Dormaa Municipality in the Brong Ahafo Region. The data were collected through responses to questionnaire surveys and audio recordings of classroom discourse. The Markedness model of Myers-Scotton (1993) was used to analyze the speech data. The study revealed that teachers use code-switching to perform various functions in their classroom interactions. Based on these results, it is argued that code-switching between Akan (Twi) and English within the lessons enhances students' understanding of concepts in both languages and also encourages active participation among students during lessons. The study is significant because it will enable policy makers recognize that code-switching occurs at all levels of education and must be given the needed attention.

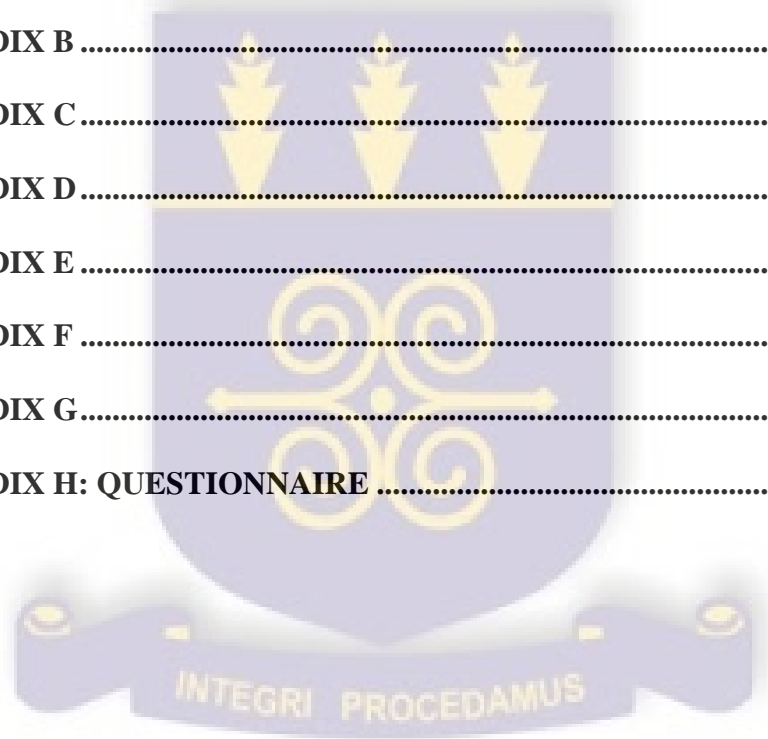
TABLE OF CONTENT

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENT.....	iii
ABSTRACT.....	iv
TABLE OF CONTENT.....	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background to the Study.....	1
1.2 Language policy of education in Ghana: Historical overview.....	3
1.3 Overview of the Current Language Policy.....	5
1.4 Statement of Problem.....	9
1.5 Objectives of the Study.....	10
1.6 Delimitations of the Study.....	10
1.7 Justification of the Study.....	11
1.8 Significance of the Study.....	12
1.9 Organization of the Study.....	12
1.10 summary.....	13
CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORKS.....	14
2.1 Introduction.....	14
2.2 Historical Review.....	14
2.3 Some Definitions of Code-switching.....	15
2.4 Code-switching Research in Educational Settings.....	21

2.4.1	Code-switching in Educational Setting outside Ghana	21
2.4.2	Code-switching in the Ghanaian Classroom	25
2.5	Terminologies in the field of code-switching	29
2.5.1	The Relationship between Code-switching and Code-mixing	29
2.5.2	Code-switching versus Borrowing	31
2.5.3	Metaphorical and Situational Switching.....	33
2.5.4	Tag, Inter-sentential and Intra-sentential Code-switching	35
2.6	Theoretical Frameworks.....	38
2.6.1	Introduction	38
2.6.2	Markedness Model	38
2.6.3	Communication Accommodation Theory	42
2.6.4	The Matrix Language Frame (MLF) Model.....	44
2.6.5	Justification of the Markedness Model	46
2.7	Summary.....	47
CHAPTER THREE: METHODOLOGY.....		48
3.1	Introduction	48
3.2	Research Design.....	48
3.3	Data and Sources.....	49
3.4	Sampling and Sampling procedure	50
3.5	Research Instruments	51
3.5.1	Observation.....	51
3.5.2	The Audio Recording	52
3.5.3	Questionnaire.....	52
3.5.4	Pilot Testing.....	53
3.6	The Participants.....	54

3.7	Analysis of the Audio Recording	54
3.8	Analysis of Questionnaire	56
3.9	Transcription and Translation of the Data.....	56
3.10	Summary	57
CHAPTER FOUR: ANALYSIS OF FIELD DATA		58
4.1	Introduction	58
4.2	The Teaching Sessions	58
4.3	Functions of code-switching in the Kindergarten Classroom	58
4.4	Summary	73
4.5	Analysis of the Teaching Sessions	74
4.5.1	Analysis of Miss SD's Teaching Session (Appendix A).....	74
4.5.2	Analysis of Mr HH's Teaching Session (Appendix B)	76
4.5.3	Analysis of Mr. SH's Session (Appendix C).....	78
4.5.4	Analysis of Miss SY's Session (Appendix D).....	81
4.5.5	Analysis of MissYS's Session (Appendix E).....	83
4.5.6	Analysis of Mr. HP's session (Appendix G)	85
4.6	Summary	87
4.7	Interpretation of the Questionnaire	88
4.7.1	Introduction	88
4.7.2	Analysis of Demographic Information of the Population	89
4.7.3	Interpretation of the Demographic Information.	89
4.8	Analysis of teachers' competence level in Twi and English.....	91
4.9	Analysis of languages used by kindergarten teachers in their teaching	93
4.10	Analysis of the communicative functions of teachers' code-switching	94
4.11	Summary	97

CHAPTER FIVE: DISCUSSIONS OF FINDINGS	98
5.1 Discussions.....	98
5.2 Contribution of the study.....	104
5.3 Direction for Future Research	105
5.4 Conclusion.....	106
BIBLIOGRAPHY	109
APPENDIX A	119
APPENDIX B	131
APPENDIX C	143
APPENDIX D	152
APPENDIX E	164
APPENDIX F	170
APPENDIX G.....	178
APPENDIX H: QUESTIONNAIRE	191



LIST OF TABLES

Table 4.1: Table describing the functions of code switching	60
Table 4.2: Demographic information of the sampled population	89
Table 4.3: Teachers' Competence level in Ghanaian languages and English	91
Table 4.4: Languages used by kindergarten teachers in their teaching	93
Table 4.5: The Communicative Function of code switching	94



LIST OF FIGURES

Fig. 4.1: Ghanaian Languages Spoken By Respondents90

Fig 4.2: Analysis of the languages used by pupils amongst themselves96

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Ghana, like many West African Countries, is a multilingual country. According to Dakubu (1988), there are approximately 50 non-mutually intelligible languages spoken in Ghana. This makes Ghana's linguistic situation quite complex. In spite of the multiplicity of the indigenous languages, none has attained an official status, even though Article 9(2) of the 1992 constitution states, '... a person shall not be registered a citizen of Ghana unless at the time of his application he is able to speak and understand an indigenous language of Ghana' (in Anyidoho and Dakubu, 2008). This provision notwithstanding, English continues to be Ghana's official language. In fact, English occupies an enviable position in the Ghanaian society. It is the language of education, the press, the judiciary, parliament, government business and the military.

Accordingly, English has become the language of power and prestige and those who are competent in it are held in high esteem. In view of this, conscious effort is made by the government on one hand and parents on the other hand to ensure that children achieve the needed competence in order to be able to function properly in the Ghanaian society later in their adult life. Even though as a second language, the influence of English on the socio economic life of Ghanaians is so overwhelming. Today in Ghana, there is hardly an indigenous language that has not been influenced in one way or the other by English. The Ghanaian languages spoken today, especially by the average educated Ghanaians, are a blend of two languages, a linguistic practice known as code-switching. For evidence, what one needs to do is to tune in to any of our local radio stations. Panelists on the various news review programmes supposedly held in our local languages cannot avoid English words and expressions in their

utterances. They alternate between English and the local language in their submission on issues. This practice of mixing or alternating languages is not limited to the electronic media alone. It is observed in almost every aspect of our social lives. Studies on code-switching in recent times have revealed that it has found its way into our educational institutions, and is observable in the speeches of both teachers and their students (Amekor, 2009; Adjei, 2010, Brew-Daniels, 2011). This development, it must be noted, has far reaching implication for teaching and learning in the classroom, especially at the very basic level of our educational system. Unfortunately, the education community has paid little attention to this aspect of classroom discourse, in particular, the practice where bilingual children and their teachers “mix” languages. Researchers have always concentrated their attention on the higher levels of our educational system, ignoring the basic level which is incidentally the foundation of scholarship.

According to (Tabors & Snow, 2001: 166), the linguistic behaviour of children in the classroom has not received the needed scholarly attention. Therefore, there is the need to examine the linguistic behaviour of bilingual teachers in our pre-schools so that a more comprehensive understanding of this phenomenon can be reached and be used to inform the instructional practices in Ghanaian basic schools. Studies in multilingual classrooms in Ghana and other parts of Africa have shown that code-switching is employed by teachers to perform numerous pedagogical functions. Studies such as Setati, Adler, Reed & Bapoo (2002); Brew Daniels, (2011) and Yevudey (2013) have shown that code-switching is a valuable communicative strategy employed by teachers in their teaching activities. In spite of the extensive work done in this area, the use of code-switching at the very basic level of our education, especially in Ghana, has not been thoroughly examined. The present study therefore, focuses on the

use of code-switching in basic schools and examines its implications for teaching children at pre-schools in the Dormaa Municipality.

1.2 Language policy of education in Ghana: Historical overview

The control of education in the Gold Coast, now Ghana had been in the hands of the missionaries and the colonial powers before the nation attained independence. The focus and direction of the policies pursued by these pre-independence powers reflected their own needs and aspirations. Dzameshie (1988:18), for example, reports that “the colonial powers needed to train local people who could serve as interpreters, clerks, administrators and merchants. They therefore, used their own languages as the media of instruction.” The colonial school in Cape Coast used English as the medium of instruction. The christian missionary, with the exception of the Wesleyan Mission, on the other hand, held the view that the indigenous languages were the most effective media through which they could propagate their religious doctrines and therefore, encouraged the use of the local languages in their schools. It must be mentioned that during the pre-colonial era, formal education was organized in the castles and therefore, the medium of instruction in each castle school depended on who owned and operated it.

Portuguese, Dutch, Danish and English were used as media of instruction wherever and whenever the Portuguese, the Dutch, the Danes and the English merchants respectively controlled affairs. The situation, however, changed with the arrival of the missionaries, who resorted to the development of the local languages in both their educational and proselytizing efforts.

The language policies during the pre-colonial period were as varied as they have been in the post-independence era (Andoh-Kumi, 1994). There was no uniform policy regarding the use of local languages and the foreign ones as media of instruction and

as subjects of study until the country officially became a British colony. During this period, the control of education came under the colonial government which began to formulate a systematic and uniform language policy. Under Governor Gordon Guggisberg, the first legislation on the use of a Ghanaian language in education was promulgated (MacWilliam, 1969; Graham, 1971; Gbedemah, 1975). A Ghanaian language was to be used as the medium of instruction only at the lower primary level, while English was to be used thereafter. Guggisburg acknowledged the importance of the local languages in education and held the belief that education should not be the tool to erode the identity of the African. He observed:

“...our aim must not be to denationalize them, but to graft skillfully on to their national characteristics the best attributes of modern civilization. For without preserving his national characteristics and sympathy and touch with the great illiterate masses of his own people no man can ever become a leader in progress, whatever other sort of leader he may become”(in Dzameshie, 1988:18).

This policy remained operational from 1925 to 1951 when the administration of the country came under the control of the indigenous Ghanaians. From this time onwards, the language policy of education became unstable, and since then, the use of a Ghanaian language as the medium of instruction at the lower primary level has been very inconsistent. From 1951 to 1955, a Ghanaian language was used as medium of instruction only for the first year. From 1957 to 1966 a Ghanaian language was not used at all. This clearly presented some form of paradox as Nkrumah had for a long time expressed the pan-African consciousness. The decision to adopt an English-only language policy might have been informed by the pre-independence nationalist agitation that the local languages were not good enough for scholarship and that the colonial administration had intentionally introduced the mother tongue policy of education in order to give the indigenous people inferior education (Gbedemah, 1975). After the fall of Nkrumah’s government in 1966, the English only policy was

modified. The period between 1967 and 1969 had English used only for the first year. From 1970 to 1974 a Ghanaian language was used for the first three years and where possible, beyond the third year to the sixth year. From 1974 to 2002 a Ghanaian language was used for the first three years until the government re-introduced the English only policy.

1.3 Overview of the Current Language Policy

In 2002, the government of Ghana through the Ministry of Education announced a change in the language policy of education. The new policy made English the medium of instruction from Class One to the highest level of education. It also recognized the importance of our local languages, and because of that every Ghanaian child was required to study a local language from class one to the secondary level. Thus, a Ghanaian language became a subject of study at the pre tertiary level.

The government held the belief that early exposure of children to English would help the children to be competent in the use of the language and consequently improve their performance in other disciplines. The Minister of Education, Prof. Ameyaw Ekumfi cited the performance monitoring test results which showed that pupils in private schools performed better than their counterparts in the public schools to justify the English-only policy. He said this test proved that when children get early exposure to English, their general academic performance improves. In most private schools for instance, English is the medium of instruction even at the basic level like nurseries, and so they do well academically than their counterparts in public schools.

Another reason for adopting the new policy was to ensure that a common language was used in teaching children from different linguistic background. In the urban centers for example, there are schools in which the children do not share a common local language and this situation made it difficult to use a common Ghanaian language

or to find a teacher to teach in classes where there could be more than one Ghanaian language spoken by the pupils. Other reasons given for this change of policy included the following:

1. The previous policy of using a Ghanaian language as medium of instruction in the lower primary level was abused, especially in rural schools. Teachers never spoke English in class even in primary six.
2. Students are unable to speak and write 'good' English sentences even by the time they complete the senior secondary school (High School).
3. The multilingual situation in the country, especially in urban schools, has made instruction in a Ghanaian language very difficult. The source added that a study conducted by the Ministry of Education showed that 50 to 60 percent of children in each class in the urban area speak a different language. "It is therefore problematic if we insist that all the children be instructed in Ga, Twi, or Dagbani depending on whether it is Accra, Kumasi or Tamale".
4. There is lack of materials in the Ghanaian languages to be used in teaching. The Minister of Education declared that "Only five, out of the languages that are spoken by our major ethnic groups, have material developed on them. Certainly, we cannot impose these five languages on the entire nation and people of other ethnic origins".
5. There is lack of Ghanaian language teachers specifically trained to teach content subjects in the Ghanaian language. The minister added "merely being able to speak a Ghanaian language does not mean one can teach in it".
6. There is no standard written form of the Ghanaian languages. He says "For nearly all the languages that we have, there is hardly any standard written form".

7. The Minister, in order to support the claim for the use of English as the medium of instruction from primary one, cited an experiment by Rockwell (1989) and indicated that children transfer from L2 to L1 better.

8. The Minister pointed out that English is the lingua franca of the state and that all effort must be put in to ensure that children acquire the right level of competence in both the spoken and written forms of the language (source: *The Statesman*, Thursday July16, 2002) .

Before the introduction of this new policy, the Ghana Education Service was using the 1974 language policy which allowed the use of a Ghanaian language as the medium of instruction in the first three years of basic education (P1-P3). A Ghanaian language in this case is the language of the locality which includes one of the following: Akan (Fante and Twi), Nzema, Ga, Ga-Adangbe, Ewe, Gonja, Kasem, Dagbani, and Dagaare. English thus became the medium of instruction from P4 (upper primary). The announcement of this new policy attracted a lot of criticisms. What surprised many people was that the government did not wait for the committee it had set up to review the country's education to complete its work before making the announcement.

Leading the crusade against this new policy was the Department of Linguistics of the University of Ghana. At a news conference held on 28th May, 2002 in Accra, they called on the government to abolish the new policy. They held the view that the policy did not take into consideration the situation of the majority of our children, especially the urban poor. Their argument was that since these children attended schools with only knowledge of their mother tongue, it would not be easy to impart knowledge to them in a foreign language. Such a move by the government was an abuse of the right of the children to be taught in languages they understood best. The argument raised by

the Department of Linguistics against the new policy was supported by the Faculty of Arts of the University of Education, Winneba. It therefore called on the government to revert to the old policy.

When the Education Review Committee, headed by Prof. Anamuah Mensah finally submitted its report, it seemed ironically to have endorsed the old policy - the mother tongue medium of instruction at the lower primary. The committee presented three strong reasons for their stand. The committee believed that:

- (i) Proficiency in the mother tongue helps in learning other languages.
- (ii) Many teachers (at the time) were not competent enough to use English as the medium of instruction.
- (iii) Children learn more easily when they are taught in their mother tongue.

These reasons were clearly in conflict with the position taken by the government, and when the government subsequently issued a white paper on the committee's report, it took a position that implicitly recognized the importance of the mother-tongue in the teaching and learning process but would still not rescind its decision of making English the medium of instruction at the lower primary school. The white paper states; "where teachers and learning materials are available and the linguistic composition of the classes is fairly uniform, the children's first language must be used as the dominant medium of instruction" (P27-28).

It was also clear that the government appreciated the difficulty in implementing the mother-tongue language policy but did not completely reject the mother tongue medium of instruction as proposed by the committee because of the backlash it had received following the announcement of the English only medium of instruction made by the Minister of Education. This state of affair puts managers of education in a

difficult position as far as the language of education is concerned, especially in the face of the complex linguistic situation in Ghana.

In view of this, adopting either of the policies without any form of modification will become counter-productive as far as education is concerned. A concerted effort on the part of education planners to tow a middle line is what I recommend. This is so because either of the two extreme positions (the English only policy and the mother tongue policy) has some inherent difficulties in their implementation.

1.4 Statement of Problem

Research evidence shows that the practice of using more than one language in a single conversation otherwise known as code-switching has found its way into our educational system and is observable both in the speeches of both teachers and students. Studies conducted on code-switching in educational settings in Ghana indicate that the teachers employ it to achieve a number of pedagogical aims (Ezu, 2009; Brew Daniels, 2011 and Yevudey, 2013). Even though code-switching is not an encouraged linguistic practice in our schools, it is found to be very useful in the classroom. The medium of instruction for pre-school education as spelt out in the 2004 language policy of education clearly mandates teachers to use either English or the local language but not a blend of the two. What this means is that code-switching by teachers at the pre-school level is not an acceptable practice. The question then is; ‘if the teachers are to teach exclusively in English, how can they impart knowledge to children who at this level of their development have little or no knowledge of English?’ or ‘What happens if the teacher does not share a common local language with the pupils?’ These questions aroused my interest to find out the kind of classroom discourse that goes on in the kindergarten, and by extension, examine the reasons behind the code choice of the pre-school teacher. The study also examines the

pedagogical relevance of the pre-school teacher's code choice. As Kyeyune (2003), puts it, "The effectiveness or otherwise of the teaching- learning process at whatever level depends on whether or not effective communication has taken place between the teacher and the learner". Therefore, the medium of instruction has a far-reaching consequence on all educational systems because the selected language has the potential to enhance or impede the quality of education.

1.5 Objectives of the Study

Specifically, the study will deal with the following objectives

- (i) To find out if kindergarten teachers code-switch during classroom interactions.
- (ii) To establish the factors that account for the linguistic choice of kindergarten teachers
- (iii) To examine the function of teachers' code choice at the kindergarten level.

1.6 Delimitations of the Study

The study delimits itself to explore and analyse the functions of code-switching in a kindergarten classroom discourse. This study is not a comparative study of monolingual and bilingual classroom. It is delimited to the research works carried out in educational and other settings. Guthrie (1984) identifies five functions of code-switching in a bilingual classroom discourse. They are used for the following:

- i. For translation
- ii For establishing solidarity and group membership
- iii. For giving procedures and directions
- iv. For clarification
- v. For checking understanding.

This study will be limited to these and other functions which have been broadly classified as follows;

- A. Code-switching for academic reasons
- B. Code-switching for socializing discourse
- C. Code-switching for classroom management discourse

These other functions of code-switching have been established by research work carried out in settings that are quite different from the Ghanaian context. This study therefore, explores these functions in the Ghanaian context, specifically in six basic schools in the Dormaa Municipality.

1.7 Justification of the Study

Kindergarten teachers do a lot of code-switching while teaching. Unfortunately, in Ghana, the reasons for this kind of code-switching at this basic level of education have not been investigated. Even though people profess a lot of reasons to explain why it occurs, most of these reasons are speculative because they are not backed by research evidence. The choice of the kindergartens is in line with Martin Jones' (1995) argument that "Classrooms often include people with differing language ability and communicative repertoires and this distinction is particularly useful for any kind of research on classroom interaction"

In Ghana, there is not much focus on the dimension of bilingual classroom discourse, especially at the pre-school level. There is therefore, the need to develop a better understanding of the kind of discourse that takes place at this basic level of education

1.8 Significance of the Study

In Ghana, English Language is taught as a compulsory subject at all levels of education and also as a medium of instruction from upper primary and beyond, but as Brice and Roseberry- Mickbins (2001:8) explain, “communication in English can be a barrier for many second language learners because English serves both as a content subject and also as a means of instruction in the classroom.” But how do the teachers break this communication barrier? One surest way is for the teachers to code-switch. Although the reasons for this kind of code- switching have been investigated both in Ghana and outside Ghana, no such study has been carried out to investigate the phenomenon at the very basic level of our education. By undertaking this investigation, it is envisaged that the outcome will arouse the interest of policy makers in education to find out what goes on in the kindergarten classrooms. This study in effect seeks to bring to the fore how best language can be used to improve knowledge acquisition amongst children. This can therefore, influence the decisions of policy makers in education in the formulation of language policy, since the debate on language policy has not ended.

Again, the findings of this research will serve as a reference material for researchers who will like to conduct investigations in the area of bilingual classroom discourse because scholarly activities in this area are relatively low.

1.9 Organization of the Study

The entire study is organized into five chapters. Chapter 1 gives an introductory note highlighting the rationale of the study, specific objectives, justification, delimitations, limitations and significance of the study while Chapter 2 presents the theoretical frameworks and reviews of the studies made in the past that are relevant to the objectives of the present investigation. Chapter 3 deals with the methodology adopted

in the study. Chapter 4 presents the analysis of the data, the analytical tools and techniques used while the summary, conclusion and policy implications are given in Chapter 5.

1.10 Summary

This introductory chapter provided the background information to the study; that is, what motivated the author to undertake this study. It also reviewed the various language policies of education during the colonial and post-colonial eras. This chapter again highlighted the rationale of the study, specific objectives, justification, delimitations, limitations and the significance of the study. It finally ended by giving details of how the entire study has been organized.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORKS

2.1 Introduction

This chapter gives an overview of some scholarly works in the area of code-switching. It discusses concepts in the field of code-switching. To this end, the researcher will look at the concept of code-switching as described by various scholars both in Ghana and outside Ghana. Concepts and terminologies in the field of this language contact phenomenon are also discussed in this chapter. These are then followed by the discussions of the theoretical frameworks upon which the study is grounded. The chapter finally ends with a summary of the discussions.

2.2 Historical Review

Code-switching has received more scholarly attention in recent times. It has been an issue of scholarly interest in the fields of anthropology and sociolinguistics (Heller, 1988; Poplack, 1988; Myers- Scotton, 1993). The study of code-switching is generally assumed to have begun with the writings of Weinrich (1953). He is thought of being the first person to have used this term. But the phenomenon until recently, had been investigated as a matter of peripheral importance, and was seen in a negative light. Scholars considered it as a substandard form of a language and held the view that those who switched codes were people who were not proficient in either of the languages involved in the switch. As Benson (2001), mentions, researchers used this term to mean “deviant behaviour patterns” (p.24) and actually considered it as a hindrance to second language development. Today however, this negative view of code-switching has given way to a positive approach of looking at it. Recent studies view code-switching as a discourse strategy which manifests high levels of proficiency in both languages (Poplack, 1988; Myers- Scotton, 1993; Amuzu, 2005;

Brew- Daniels, 2011; Quarcoo, 2013). In spite of the positive attitude towards code-switching, scholars differ sharply in their views of what the phenomenon is. In the following sections the researcher discusses some of these definitions as proposed by scholars both in Ghana and outside Ghana.

2.3 Some Definitions of Code-switching

A number of research activities have gone on in the area of language alternation otherwise known as code-switching in Ghana. But the scholars who have attracted my attention include Forson (1979), Dako (2002), Quarcoo (2009), and Yevudey (2013). Most often, the definitions of code-switching given by scholars reflect the writers' own interest and have failed to have a universal appeal. In this study, code-switching is defined as the use of more than one language variety in the speech of a person.

Forson (1979) looks at both the grammatical and the sociolinguistic aspect of code-switching. He holds the view that "code-switching is a linguistic phenomenon in which almost all educated Ghanaians have a love-hate affair". By this definition, he suggests that Ghanaians show an ambivalent attitude as far as issues of code-switching are concerned. They hate code-switching because of the view that it has the potentiality of crippling the development of the indigenous languages, and they love it because of its pragmatic importance. He seems to suggest that code-switching is an unavoidable language contact practice available to educated Ghanaians. He thus observes; "code switching is the situation in which we intend to be in our Ghanaian languages but in the process use a lot of materials from English". Studying both grammatical and sociolinguistic aspects of code-switching between English and Akan, he explains that in English /Akan code-switching, it is Akan that becomes the matrix language while English forms the embedded language. He argues that in a situation where two systems are available to a speaker, as in code-switching, he will likely

prefer the code with simpler structure and therefore, Akan having the simpler structure will set up the frame into which English words will be inserted. Forson's perception of code-switching and his explanation that in Akan/English code-switching a speaker will prefer Akan merely because of the simplicity of its grammatical system go contrary to MFL principle. According to Myers-Scotton's MFL (1993), in code-switching, it is usually the matrix language that directs the morphosyntactic structure in a mixed constituent, and for that matter, Akan being the base language of Akan/English code-switching will necessarily determine the morphosyntax of the structure and not because Akan is chosen due to its simplicity in structure. His argument therefore that the choice is based on the speaker's preference is too simplistic. Again he seems to ignore the complexities of code switching as he hinges his analysis on clauses and phrases which are not sufficiently contextualized to demand the claims he makes about the phenomenon of code-switching.

Dako (2002) states that, "Code-switching involves words with different language indices, inserted into phrase structure". Her study focused on the insertion of local items into English structures in the Ghanaian print media. She observes that though, code-switching is prevalent in the Ghanaian media, writers consider the insertion of local items into English structure as inappropriate and for that matter italicize, underline, capitalize or put such words into inverted commas. According to her, in an intense contact situation there is always an attempt by language users to keep the languages involved apart. The speakers who switch codes have a notion of which words belong to which language. Her study was an attempt to bring to the fore the difficulty involved in distinguishing borrowing from code-switching. For her what sets borrowing and code-switching apart are 'the degree of assimilation and the degree of frequency'. She explains that the Akan words *nana* (*nananom-plural*) is a

code-switched item in English because it has not been assimilated morphologically into English language while *odikro(odikros-plural)* is a borrowed item because it has undergone morphosyntactic integration with its English plural marker-‘s’. She however admits that her criterion for distinguishing borrowing from code-switching is too simplistic because morphological integration is not absolute in determining which is what, and explains that both borrowed and code-switched items ‘can show morphological integration or lack of it’ (Dako 2002:49).

Her discussion however, deals with only the structural aspects of code-switching and does not take account of who switches codes or why people switch codes. She limits the phenomenon of code-switching to intra-sentential and tag switches.

Quarcoo (2009) sees code-switching as “The use of two grammatical systems in a single clause” where the clause means a sentence. This definition is very limited and does not properly address the phenomenon. She investigated the constraints on English/ Akan code-switching, and therefore her definition suits her interest. She only looks at an aspect of code-switching that is, intra-sentential code-switching, and does not take account of the other types like tag and inter-sentential code-switching. For her, language alternation occurs within the clause.

Yevudey (2013) investigates the pedagogical relevance of code-switching in the lower primary and defines the phenomenon as “any kind of system that two or more people employ for communication”. This definition is by no means an accurate description of a linguistic phenomenon involving two languages in a single conversation. The use of the expression ‘any kind of system’ appears to render the definition vague. We don’t know for instance, whether he is referring to verbal or non-verbal communication. If he means non-verbal system of communication, then one may say sign language and other forms of non-verbal communication should be included in the domain of code-

switching. To Yevudey, the condition precedent for code-switching to occur is the involvement of at least two persons in the speech event. In as much as this may be true to some extent, we cannot also deny the fact that code switching is purely a feature of bilingualism and for that matter any linguistic phenomenon described as such must at least, involve two language varieties (Forson, 1979; Poplack, 1980; Myers Scotton, 1993; Muysken, 1995; Dako 2002). This study therefore, does not accept the position taken by Yevudey with regard to what code-switching is. This is because the phenomenon being investigated involves the use of language in its spoken form.

Poplack (1980), holds the view that code-switching is the “smooth transition between LI and L2 elements marked by false starts, hesitations, or lengthy pauses”. This definition assumes that those who switch codes are not competent enough to use either of the languages involved in the switch. This view of code-switching is largely shared by Cook (1991) when he claims that switching occurs when a person needs to compensate for some difficulty, express solidarity, convey an attitude or show social respect. These definitions fit well into what Cummins (1981) terms as semilingualism. Cummins holds the beliefs that people who code-switch are those who do not command enough pieces in either language to form a complete code. This has been the idea of many researchers but I totally disagree to any suggestion that code-switching is a function of linguistic incompetence. The opposite is rather the case. My position is corroborated by Valdes-Fallis (1978) who argues that code-switching does not necessarily reflect a language deficit. There is enough research evidence to show that those who are involved in code-switching are rather people who are very competent in more than two languages,(Myers Scotton 1993, Adendorff 1993, Muysken 1995).

A definition of code-switching, put forward by Romaine (1994), sees code-switching as a “communicative option available to a bilingual member of a speech community on much the same basis as switching between styles or dialects is an option for the monolingual speaker”. This definition does not tell us what exactly code-switching is. It looks at code-switching in terms of the available code options at the disposal of the speaker. This view clearly is about the linguistic choice one has to make as a bilingual. It assumes that once a speaker has more than one language in his linguistic repertoire, then that speaker switches codes. His definition does not account for the role of the listener or the linguistic situation. This makes his definition too speaker centered.

Myers-Scotton (1988:157) regards code-switching as the use of two or more linguistic varieties in the same conversation, without prominent phonological assimilation of one variety to the other. Switching may either be intra-sentential or inter-sentential and (but does not necessarily) involve stretches of more than one word. This definition is supported by Zentella (1981) with the claim that code-switching is the bilinguals ability to alternate between the languages in their linguistic repertoire. What is worthy of mention is that this definition does not consider one word insertions as instances of code-switching. This view of code switching is not complete enough. For the purpose of this study, intra-sentential, inter-sentential and one word insertions are all considered as code-switching.

Myers-Scotton herself might have seen the limitation in this definition and subsequently in her definition of code-switching in her Matrix Language Frame model, she defines code-switching as “the selection by bilinguals or multilinguals of forms from an embedded language (or languages) in utterances of a matrix language during the same conversation” (Myers-Scotton, 1993).

She explains that in code-switching, especially where two languages are involved, one of the languages is more dominant than the other. According to her, the more dominant language determines the ‘order of elements’ in the utterance. That is, it forms the structural rules of the code-switched utterance and that function morphemes can only be drawn from this dominant language. It is this language that she calls the matrix language whilst the less dominant language is the embedded language. Myers Scotton argues that the matrix language is the language of more morphemes whereas the language of a fewer morphemes is the embedded language. It must be mentioned that in a kindergarten classroom discourse, determining which of the languages is matrix or embedded on the basis of this criterion can be problematic as none of the languages is fixed. What this means is that the matrix or embedded language may change in the course of even a single conversation depending on the activity at hand.

In fact, one aspect of this model is that it makes no distinction between borrowing and switching as far as morphosyntactic integration is concerned. But again, looking at this definition closely, one comes to the realization that the definition pays less attention to language alternation between speakers’ turn. Sometimes in a conversation between bilinguals, it is observed that while one speaker speaks in one language, the other speaks in another language. In the dialogue below which is taken from Appendix F, the teacher speaks in Twi but the pupils reply her in English.

- Teacher: **Enti obiara ate aseε ?**
 (I hope you have all understood the concept?)
- Children: Yes madam!
- Teacher: **Obiara ate aseε ?**
 (Have you all understood?)
- Children: Yes madam!
- Teacher: **Wo bε tumi ayε?**

(Can each one of you do it?)

Children: Yes, madam!

Using Myers-Scotton definition of code-switching, then there is no code switching in the dialogue above. Clearly this definition does not consider switching between speakers' turn. But available evidence shows that code-switching occurs both within and between speakers' turn (Poplck, 1980; Zantella, 1981; Ezu, 2009; Quarcoo, 2013). In spite of this shortfall in her definition of code-switching, this study accepts the notion that no distinction be made between borrowing and switching as far as morphosyntactic intergration is concerned.

2.4 Code-switching Research in Educational Settings

The phenomenon of code-switching in the classroom in Ghana and other parts of the world has been the subject of scholarly attention for many years. There are scholars who view it favourably (Martin Jones, 1995; Arthur, 1996 Ezu, 2009; Brew Daniels, 2011) and those who do not encourage its use in the classroom (Weisberger, 1984 and Hakuta, 1986). This controversy has arisen because of the importance of language to the system of education. The success or failure of a country's education to a large extent depends on the language policy pursued in that country.

This section therefore, reports on the findings made on code-switching in educational setting in Ghana and outside Ghana.

2.4.1 Code-switching in Educational Setting outside Ghana

Quarcoo (2013) quotes a study undertaken by Clegg and Afitska (2011) to assess the academic relevance of code-switching in the classroom in sub Saharan African countries, and reports that educational authorities do not approve of its use, and teachers do not accept its use either. In spite of the negative feeling by authorities regarding the simultaneous use of two languages in the classroom, the authors

established that code-switching can be used as an important pedagogical strategy in the classroom. The authors found that Code-switching is useful for explaining and elaborating on concepts, increasing classroom participation, establishing good classroom relationships, ensuring the smooth running of the lesson, and making connections with the local culture of learners.

Similarly, a study conducted by Arthur (1996) on code-switching in two primary schools in Botswana shows the pervasive use of code-switching by teachers. The policy under which the schools operated prescribed the use of Setswana, which is the national language, from lower school to standard 3 with a transition to English medium of instruction from standard 4. She established that code-switching was used for two main purposes by teachers. The first function was that code-switching was used for class and lesson management. The second function identified by Arthur was that code-switching was used to encourage learners' participation. This study revealed that code-switching plays a very important role in the teaching and learning activity that notwithstanding, teachers have negative attitude about it. Even though the teachers themselves used code-switching to perform several pedagogical functions, they did not allow its use among their pupils insisting that the schools' policy was that English should be the only medium of instruction (Arthur 1996:21).

This is what Yevudey (2013) describes as a contradiction; 'the differences between what is actually done, i.e. using code-switching in the classroom context to achieve certain teaching and learning goals, and what is said to be done, i.e. on the perceptions of students and teachers towards code-switching.'

Apart from the negative feeling people have about the use of code switching in general, its importance as a teaching strategy has been acknowledged by many scholars. Adendorff (1993) studies English- isiZulu code-switching among isiZulu

teachers and learners in South Africa. His investigations on the functions of code-switching in the classroom as well as during school assembly led him to establish that code-switching did not perform only academic function but also social function. Regarding the academic functions, he reported that teachers switched codes to build up learners' understanding, to help learners to interpret the subject matter or to involve learners in their discussions. About the social function of code-switching, he reports that code-switching was used by teachers to create humour and to mark solidarity. Apart from these, he also found that code-switching was used as a classroom management tool.

In Kenya, Merritt et. al (1992) conducted a study in three primary schools. Using ethnographic observation, the researchers explored what actually determined the teachers' code-switching between English and Swahili. The reasons they found for which teachers code-switched includes, the socializing role of the teacher, the importance of variation and repetition, and the teacher's linguistic competence and insecurity.

Martin-Jones (1995) reports that Guthrie conducted a comparative research and established that the monolingual teacher was less able to teach students who were at an early stage of stage of development. Guthrie (1984) thought that the bilingual teacher was better placed when it came to the teaching of children. He identified the communicative functions of code-switching, and reported that Chinese switching was used for in-group discussions, for translation, for giving directions, for clarification and for checking understanding.

Nzwanga (2000) also conducted her research on the use of code-switching at the Ohio State University in a class where French was learnt as a second language. Her study looked at communicative and academic roles of code-switching. Using video-taped

data, she transcribed and then analysed the transcription according to conversation analysis method. She established that there are two levels of code-switching in the classroom interaction; formal and informal. At the informal level, code-switching was used for classroom management purposes and for administration while the formal level code-switching was used for academic functions like introducing, explaining, commenting, practicing the target language and so forth.

Ferguson (2003) reviews literature on code-switching research conducted in educational context and summarizes the functions of code-switching as identified by researchers on bilingual speech in the classroom in a post-colonial context. His findings showed that the functions of code-switching by teachers and students can be classified under three main categories. These are;

i. code-switching for Curriculum access. Here, code-switching is used to help learners to understand the subject matter of the lesson.

ii. code-switching for personal relation. According to Ferguson (2003), the classroom is not merely a place for learning; it is also a social environment in its own right. He explains that teachers who use only English are often perceived as distant and for this reason, teachers code-switch to other languages and as a result, manage the effective environment of the class. Such code-switching also indicates that teachers acknowledge their dual identities. That is, they are members of the teaching profession but also members of the local community.

iii. code-switching for classroom management discourse. This is when code-switching is used to motivate, discipline or praise learners, to deal with late-comers and disruption. This type of code-switching is also used to gain and keep learners' attention or to encourage classroom participation.

2.4.2 Code-switching in the Ghanaian Classroom

The phenomenon of code-switching in educational setting in Ghana has received a lot of scholarly attention over the last few years. Forson (1979:61) reports that code-switching was not a code choice in Ghana until after the early 1950s when English was introduced as the medium of instruction in the elementary schools. He observes that code-switching was highly marked in any formal setting involving even educated bilinguals because in any such setting, the unmarked code was an unmixed local language or English. Code-switching until recently was highly stigmatized and that its occurrence in any official setting was ‘an invitation to ridicule’ (Forson 1988:183). Today however, attitudes towards code-switching have changed, and recent studies have acknowledged the importance of code-switching among Ghanaians arguing that it has now become an expected code choice (Aselevi 1990, Amuzu 2005). Subsequently, Amuzu (2005) even suggests that code-switching be renamed ‘the bilinguals’ first tongue’. His description of code-switching clearly conveys a positive attitude of code-switching which goes contrary to Forson’s description. The change of attitude today is reflected in the pervasive use of code-switching in all aspects of human endeavours in Ghana. It is observed on radios and televisions, and in churches and classrooms.

On code-switching in the Ghanaian classroom, a number of studies show that teachers and pupils employ code switching during lessons to achieve learning and teaching goals (Ezu, 2009; Amekor, 2009; Brew Daniels 2011).

Ezu (2009) undertook a research work in the Volta Region of Ghana to investigate the effects of code-switching on students’ performance. His findings indicated that students at the senior high schools performed better when they are taught in English and a dominant Ghanaian Language of the area where the school is located.

According to Ezu (2009), teachers use code-switching to explain difficult concepts to their students. He therefore recommends that code-switching should be used as the medium of instruction in senior high schools. He reports that both the teachers and the students have positive attitude towards code-switching. He therefore, encourages its use in the classroom as the medium of instruction. The author through this study reveals that teachers have over the years been using code-switching illegally to achieve many pedagogical goals. He therefore, recommends the legalization of code-switching in Ghanaian senior high schools. His study shows that code-switching does not only enhance students' comprehension, it also encourages their participation in the academic discourse.

Amekor (2009) investigated the pattern of language use in some selected basic schools in the Volta Region. The research was carried out in the Keta Municipality and the Akatsi District. His aim was to find out what motivated teacher to use a particular code aside the expected code, English. His data were recordings of teachers' classroom interactions with their pupils and questionnaire. Through these, his study revealed a pervasive use of code-switching by teachers in the classroom. The author reported that the teachers indicated that they sometimes relied on the children's L1 because the children did not have a strong command over the English language and therefore, teaching them exclusively in English would be a fruitless effort. In as much as the teachers' reason for switching code in the classroom was justifiable, the author also realised that some of the teachers switched codes to compensate for their own inefficiency in the use of the English language. Amekor (2009), therefore, concludes that since code-switching is an unavoidable phenomenon in the classroom, teachers should be introduced to the concept of code-

switching so that they will know the types that exist. To him, this will make them know which type is appropriate for language acquisition and the knowledge transference.

In a research based on Ewe-English code-switching in a rural primary school in Volta Region, Adjei (2010) observes three code-switching patterns used by teachers: repetitive, intra-sentential and inter-sentential. (For the definitions of intra-sentential and inter-sentential code-switching, see section 2.5.4 below.) He explains that in repetitive switching, the explanation of a concept is given in one language, usually the L2 and then repeated in another language, usually the L1. The repeated version (L1) is usually a translation of the first language (L2). He observes that pupils in the rural areas have low comprehension of the English language and unless teachers use English alongside the local language, they (pupils) do not understand what is being taught. This type of code-switching is therefore, prompted by the low participation of children in the lesson when English is the medium of instruction. In other words, repetitive code-switching is used to encourage learners' participation during teaching and learning process (Adjei 2010:23-24) Regarding the attitude of teachers towards the use of code switching, Adjei (2010) observes that teachers have positive attitudes towards code-switching as they believe it is the code choice that will increase pupils' understanding during lessons.

Brew Daniels (2011) studies the code choice of teacher trainees in some selected college of education in Ashanti Region. The focus of the study was to find out if teachers under training switch code when doing their teaching practice and if they do, whether such switching has any influence on the learning outcome of the pupils whom they teach. Through this study, the author established that there was pervasive use of code-switching by the teacher trainees both inside and outside the classroom. Her study revealed that not only did the teacher trainees used code-switching to

enhance the understanding in the pupils, they also used it to encourage pupils participation as well as using it to cover up their own linguistic deficiencies. The author concludes that code-switching is not a hindrance to learning as some people have perceived but it rather improves the academic performance of pupils and therefore, recommends that the use of code-switching in the classroom should be regulated.

Quarcoo (2013) investigates the use of code-switching by students during academic group discussions at the University of Education, Winneba South Campus. She identifies two types of code-switching by the students- English/Akan code-switching on one hand and code-switching between English and the other indigenous Ghanaian languages on the other hand. Each of these types of code-switching, she explains, serves a specific social purpose. While code-switching between English and the other Ghanaian languages is used by students to index in-group communication or membership, English/ Akan code-switching on the other hand serves a dual purpose- it is used to index their university membership and also an out-group language used by the students for interaction. The other Ghanaian languages are therefore, strictly marked, and the use of any of them is a tool for exclusion. As she defines, ‘using Akan does not exclude non-Akans, but the use of other indigenous languages that is not Akan excludes those who have affinity to that language (Quarcoo 2013:95)

This study revealed that students use English/Akan code-switching because it is easier to clarify issues in it. That aside, the study found that code-switching is an effective means of communicating ideas and gives pupils a better and improved understanding of what they are taught. Therefore code-switching is used as a pedagogical tool in student’s group discussion

2.5 Terminologies in the field of code-switching

Literature on code-switching is full of terminologies. Romaine (1995) quoted in Gulzar, (2009) concedes that the issue of terminology continues to be a problem in the study of language contact situation. There is therefore, the need to discuss some of these terms because the phenomena they describe are found in this study.

2.5.1 The Relationship between Code-switching and Code-mixing

Terms such as code-switching and code-mixing have been considered synonymous by some researchers (Myers-Scotton 1993) while others see them as two different phenomena (Kachuru, 1983; Singh, 1985). The latter group reserves the term code-switching for inter-sentential switches only and instead prefer to use the term code-mixing for intra-sentential switches. Grosjean, (1982) explains that language alternation across sentence boundaries is known as code-switching while language alternation within a sentence is known as code-mixing. MacCormick (1995) states that code-mixing is a speech in which the alternation between the two languages consists of shorter elements, often just one single word while code-switching refers to alternations of languages within a single conversation often involving switches within a single speaker's turn or a single sentence. Hammers and Blanc (2000) hold the view that 'in code-mixing, there is necessarily a base language. It is of course possible to see the two phenomena in a single utterance, in which case code-mixing can be embedded in code-switching'. It is only in code-mixing (intra-sentential) that the integration of the two grammatical systems of the languages involved in the discourse is required.

Myers-Scotton and her associates on the other hand see code-switching and code-mixing as complementary terms. They claim that the perceived distinction between the two processes is not really critical to the analysis of bilingual speech and that it is

possible to observe the two phenomena in a single utterance in which case code-mixing may be embedded in code-switching. That is, the distinction between the two is not absolute and there are utterances which can be classified in either category or code-mixing can trigger off code-switching (Clyne, 1967; Myers-Scotton, 1993; Blanc and Hammers, 2000). They reject the notion that code-switching is the alternation within a sentence explaining that code-mixing may involve the transfers of elements of all linguistic levels and units ranging from a lexical item to sentence, ‘so that it is not always possible to distinguish code-mixing from code-switching’ in certain instances. Yet, there are some researchers (eg. Muysken, 2000) who avoid using the term code-switching altogether and rather prefer to use code-mixing as a cover term for both intra-sentential code-switching and borrowing. Muysken (1995, 2000) for instance, speaks of different types of code-mixing: insertion, alternation and congruent lexicalization. Insertion is most often the occurrence of a single lexical item such a nominal phrase from one language into the structure of another language. Alternation refers to instances of one language being replaced by the other in the middle of the sentence and is mostly but not always associated with longer stretches of code-switching. Congruent lexicalization on the other hand is a situation where two languages share a grammatical structure, while lexical elements come from either language. This group believes that code-switching suggests alternation only as in the case of switching between turns or utterances, but not necessarily insertion. Muysken (1995 in MacCormick 1995) also distinguishes code-switching from borrowing and claims that borrowing ‘involves the incorporation of lexical elements from one language in the lexicon of another language.’ This study however seeks to adopt the position taken by Myers-Scotton and her associates, because the focus of the study is

to find out why teachers use more than one linguistic variety in their teaching, and therefore, drawing a distinction between the two does not solve the problem.

2.5.2 Code-switching versus Borrowing

Two terms that have generated debate in intellectual discourse in the study of bilingual speech are code-switching and borrowing. Are these two terms the same or different? This is the question that has brought strong disagreement among scholars of sociolinguistics.

In drawing the difference, Gulzar (2009) argues that “the basic difference between code-switching and borrowing is that borrowing has L1 history in the field of code-switching.” He explains that borrowed words were initially introduced by bilinguals but, after some time, even monolingual speakers recognized those words as part of their language. By this explanation, he seems to support the school of thought that sees code-switching and borrowing as two distinct processes. Poplack (1978, 1980, and 1981) and her followers have argued that importing a single term from one language to another is quite different from importing long stretches (phrases, clauses or sentences) from one language to another. To this group, for a word to be considered as a borrowed word, it must have undergone morphological and phonological transformation. Bentahilla and Davis (1983) argue that one of the major characteristics of borrowed item is to fill lexical gaps in the recipient’s language. In fact, Gumpez (1982) and Kamwangamalu (1992), argue that borrowing is a third form of language alternation. Kieswetter (1995) defines borrowing as “words that have been integrated phonologically and morphologically into the host language”. The attempt to distinguish code-switching from borrowing has however been rejected by Myers-Scotton (1993) and her associates. Eastman (1992), for instance, states that “efforts to distinguish code-switching, code-mixing and borrowing are doomed and

we must make ourselves free of the need to categorize any instance of seemingly non-native material in languages as borrowing or a switch if we are to understand the cognitive, social and cultural processes involved in language contact”.

This group holds the view that drawing a distinction between the two terms does help in the analysis of bilingual speech. This group acknowledges a single word (insertions) as well as multiple words (alternation) as two forms of code-switching. Hill (1986 in Macswan1999), views code-switching and borrowing as the same process. He argues that code-switching and borrowing are always difficult to separate. It is not easy for linguist to distinguish between code-switching and borrowing in practical terms.

Even though Myers-Scotton (1992) sees code-switching and borrowing as part of a single continuum, and argues that “a categorical distinction between code-switching and borrowing need not be made”, she proposes “frequency as the best criterion to link borrowed forms more closely with the recipient language mental lexicon”. She again refutes the argument that borrowing has the sole aim of filling lexical gaps. She argues that not all borrowing occurs due to the perceived absence of an equivalent term in the recipient language culture. She explains that there are two types of borrowing- core and cultural borrowing. Core borrowing are those that have viable equivalents in the recipient language while cultural borrowing are those lexical items that are new and do not have equivalents in the recipient language (Myers-Scotton 1993). It is the core borrowing that she considers as part of a single continuum.

The present study is aimed at analysing code-switching in a kindergarten classroom, to establish why teachers adopt a bilingual approach in their teaching. This bilingual approach to teaching is the use of two or more linguistic items by teachers in their classroom interaction. The question one needs to ask is, ‘why do teachers incorporate

items from one language into the other even when the recipient language has their equivalents'. Clearly this question cannot be answered by merely drawing a distinction between borrowing and code switching. It is in the light of this that the researcher associates himself with Myers- Scotton and her associates who see code-mixing and borrowing as type of code switching.

2.5.3 Metaphorical and Situational Code-switching

Blom and Gumperz (1972) identify two types of code-switching practices- situational and metaphorical code-switching. Situational code-switching refers to the change of language which corresponds to changes in the situation, particularly participant, setting and activity type. For instance, when bilingual speakers are conversing, they tend to introduce words from a particular language to demonstrate that they have knowledge of a prestigious code, seen as an index of education level and social status. They report that in Sauris, Italy for example, residents use localized German dialect at home but speak an Italian dialect in semi-public setting such as school and church. This is the situation that exists in the context of the researcher where Twi is used in informal setting and English is used in formal settings like schools, parliament and courts. Blom and Gumperz (1972:421) posited that social events defined in terms of participants, setting and topic, "restrict the selection of linguistic variables" in a manner that is somewhat analogous to syntactic and semantic restrictions. That is, in particular social situations, some linguistic forms may be more appropriate than others. For instance, the variety of language used by teachers and their students at school during teaching and learning will be different from the variety used by market women. It is important to mention that in situational code-switching, different social events may, for example, involve the same participants in the same setting when the topic shifts. An example of this is given by Blom and Gumperz. They report that in

the town of Hemnesberget in Norway, university teachers treated lecture and discussion within a class as different social events. While lectures were delivered in the standard *Bokmal*, discussions were held in *Ranamal* in order to encourage debate among the students. In situational code-switching therefore, there is a direct link between the situation and the language. In the classroom, situational code-switching can be applied to different kinds of tasks in which a specific use of code could be predictable. Similarly, in our schools, it is the type of social event that determines the code choice. In their classroom interaction with their pupils, teachers use English while the local languages are reserved for informal discussions. The use of English is confined to the classroom but any interaction, be it between teachers or between teacher and their pupils, especially outside the classroom situation, is held in the local languages and in the context of this research, Twi.

Metaphorical switching on the other hand refers to factors that affect changes in language while the situation remains the same. This definition relies on the use of two language varieties within a single social setting. Nishimura (1995) in her study of the functions of Japanese/English code-switching among second generation Canadians demonstrates that “individuals of a specific bilingual community identified code-switching in order to express in-group, ethnic and generational identity”. Gumperz (1972) regards metaphorical code-switching as symbolic of alternative interpersonal relationship. To him, metaphorical code-switching is defined precisely by the violation of the expected code situation relationship. It is code change that occurs without any observable change in the physical situation. Here, the unexpected variety does not relate to the social situation, but rather it relates to particular kinds of topics or subject matter. The unexpected variety, according to Heller (1988), then is ‘the social meanings the variety has come to symbolise’. An example of metaphorical

codeswitching in the classroom discourse is that one language is associated with the role as a teacher and one with 'non-teaching guise' (Simon, 2001).

Blom and Gumperz (1972) give the example that in a business transaction, a clerk and a customer may use a more formal language variety and switch to a less formal variety for subsequent personal talk, which may "add a special social meaning of confidentiality or privateness to the conversation". In such switching, changes in language affect changes in context and social roles without apparent prior changes in the physical or outward context. In metaphorical code-switching, there is no link between the language and the social situation, and it is done only to achieve special communicative effect. This type of switching however is not used by preschool teachers. This is because whatever code is used in the kindergarten classroom by teachers is always aimed at helping them achieve certain pedagogical objectives. It must also be mentioned that Gumperz's study was based on switching between two dialects within the same language but in this study, the code switching that takes place in the kindergarten classroom is the type that involves two different languages, and therefore using Gumperz's model for the analysis might not produce the accurate results.

2.5.4 Tag, Inter-sentential and Intra-sentential Code-switching

Poplack (1980), within the variation theory, identifies three different types of code-switching. The first, tag-switching, refers to where a short phrase or utterance from the second language is placed within the first - this normally involves short, well-known phrases such as 'you know', "do you get it?", "I mean," "ok", "yes" etc.

Example (1a) from Romaine (1989) illustrates how English tag "you know" has been inserted into Spanish.

(1a) “**Es difícil encontrar trabajo estos días**, you know? (It is hard to find work these days, you know?)

The data for this work has some examples of tag switching as shown below.

(1b) We have those who live in water, who live in the home and those who live in the bush *do you get it?* Those who live in water...but **mmoa ɔmo ye deɛ n? Wɔn nom a ɔte nsuom**. Do you get it?

Tag switches, according to Romaine, are subject to minimal linguistic restrictions, and for that matter, may be inserted at a number of points within the sentence without breaking the syntactic rules (Romaine 1997).

Inter-sentential switching consists of language switches at phrasal, sentence, or discourse boundaries. In inter-sentential switching, a speaker switches from one language to another between different sentences. This implies that when the speech of an individual is divided into sentences, one sentence will be in one language while the other sentence will be in a totally different language.

In the data I collected, there were many examples of inter-sentential switching. This type of switching mostly took the form of translations where the teachers translated a preceding clause usually, from the L2 into the L1. For example;

(2a) Things we use to clean our environment. **ɛye nnoɔma a ye de prapra ye n mpɔtamɔ**

(They are things we use to clean our environment)

In example 2a above, the English utterance is what has been translated into Twi in the second clause.

Intra-sentential switching on the other hand, involves a shift in language in the middle of a sentence, usually performed without pause, interruption or hesitation. In this type of switching, speakers switch from one language to another within the same sentence. Thus a sentence will be made up of two or more languages. When considering intra-sentential switching it is important that the analyst also establishes the matrix and embedded languages in the code switched material. The matrix language is the main language of code switched utterances while the embedded language or languages is the less dominant language and plays a lesser role. An example of this is seen in the title of Poplack's (1980) study "Sometimes I'll start a sentence in English y termino en español". ('Sometimes I'll start a sentence in English and finish in Spanish'). This type of code-switching requires the most fluency of all types of code-switching because it requires speakers to switch to the rules of syntax of the other language mid-thought or sentence, and consequently may be avoided by all but the most fluent of bilingual speakers (Lipski, 1985). In the data I gathered however, those who made intra-sentential code-switching were rather those who had competence in only one of the languages involved in the switch- English. The following extract is an example of intra-sentential switching.

(2b) Bɔla, anaa rubbish, aha rubbish.... ε te se papers ye kɔ piki a na ye de agu mu. Aha ye pra boa ano a, na ye de agu mu. W'ahu aha wheel barrow nso ye adeε baako a ye be use. Se ε ye no demonstration. εnti wheel barrow nso ye baako. Se mo ahu?

("Boola" or rubbish like pieces of paper when we pick such things we put them in such containers. That is, after sweeping, we put the rubbish in such containers. Wheel barrows are also used for such purposes. I am only demonstrating to let you know that wheel barrow is one of the things we put rubbish in)

Many linguists believe that a study of intra-sentential code-switching will “yield the greatest fruits in the way of characterizing the linguistic organization of the bilingual cognitive apparatus” (Lipski, 1985). In this study, all the three types will be considered as instances of code-switching

2.6 Theoretical Framework

2.6.1 Introduction

Code-switching as a linguistic phenomenon has been examined within many frameworks. Three theories that have been used to analyse bilingual speech in the last few year are the Markedness Model (MM), Speech Accommodation Theory (SAT) and The Matrix Language Frame (MLF). This study however uses Myers Scotton’s Markedness Model for the analysis as it helps explain better the reason for code switching in the collected data.

2.6.2 Markedness Model

The Markedness Model is one of the most influential and most fully developed models of code-switching. This model proposes that speakers have a sense of markedness regarding the linguistic codes available to them for any interaction. They then choose their codes based on the other participant(s) and/or their relationship with others which they wish to have in place. The theory posits that each language in a multilingual community is associated with particular social roles, which Myers Scotton (1993) calls rights-and-obligations (RO) sets. By speaking a particular language, a participant signals his understanding of the current situation, and particularly his relevant role within the context. If a speaker uses more than one language the speaker in effect is initiating a negotiation over relevant social roles. The assumption is that speakers must share, at least to some extent, an understanding of the social meanings of each

available code. She explains that the existence of such norms forms the basis for understanding the significance of particular code choices by interlocutors.

The model has its basis in the Rational Actor Model proposed by Elster (1989) which postulates that “when encountered with various courses of activities, people often do what exactly they believe is likely to have the best overall outcome”. Applying this to bilingual conversation, Myers-Scotton in the Markedness Model explains that speakers are reasonable in the sense that their linguistic choices are normally based on their assessment of cost-benefit analysis. Consequently, in making a choice, speakers will opt for the code which enables them to carry out their immediate goals without diminishing their own beliefs. She explains that in any type of interaction, participants know at the sub-conscious level that there is a continuum of choices that are considered unmarked or marked, and making the marked or the unmarked choice depends on factors such as the setting, topic, participants and the intention of the speaker. The unmarked code is the expected code given the situation of the interaction while the marked code is the unexpected code choice. What is considered marked or unmarked code will depend on the situation. In Ghana for instance, English is the unmarked code for official interactions. It is the medium of instruction in institutions of higher learning but its use in the market amongst or with market women will be considered as marked.

In the Dormaa municipality for instance, there is an unmarked RO which guides the linguistic choice of teachers in the pre-schools. Although English is the medium of instruction at all levels of education and is also considered as a prestigious code, its use in the Kindergarten classroom is not considered as such. An exclusive use of English in the kindergarten classroom might be considered marked, and therefore, the expected code will be a blend of English and Akan. It must be mentioned that whereas

the speaker uses code choice to achieve a communicative goal, for the listener, it is an index of identity. The use of English in Ghana for instance is an indexical of higher education while the use of an indigenous language by any person or group of persons will also index another RO set like ethnicity. Akan/English code-switching is also an unmarked code at the pre-schools and its use is indexical of dual identity of the KG teachers- they can speak both Akan and English.

The Model is stated in the form of a principle and three maxims. The negotiation principle, modeled on Grice's (1975) cooperative principle, presents the theory's central claim.

‘Choose the form of your conversational contribution such that it indexes the set of rights and obligations which you wish to be in force between the speaker and addressee for the current exchange (Myers-Scotton 1993:113). What this means is that in conversational situation, participants by obligation are supposed to choose a code that will reflect the context in which they are operating. Myers-Scotton argues that bilingual speakers have an innate theory of markedness and indexicality, and use language to negotiate interpersonal relationship and this they do within a normative framework which does not restrict choices but limits interpretation.

Three maxims follow from this principle. These are the unmarked choice maxim, which directs, “Make your code choice the unmarked index of the unmarked RO set in talk exchanges when you wish to establish or affirm that RO set”; the marked code choice maxim which posits, “Make a marked code choice when you wish to establish a new RO set as unmarked for the current exchange” and the exploratory choice maxim which states, “When an unmarked choice is not clear, use code switching to make alternate exploratory choices. Thus, the social meanings of language (code) choice, as well as the causes of alternation, are defined entirely in terms of participant

rights and obligations. These maxims ultimately give us four types of code-switching. These are, (i) code-switching as a sequence of unmarked choices, (ii) code-switching itself being unmarked choice, (iii) code-switching as marked choice and finally, (iv) code-switching as an exploratory choice. The fourth category will not be discussed because it is not relevant to the study.

Code-switching as an unmarked choice is the type of switching that is triggered by a change in situational factors within the conversation, such as when a speaker suddenly realizes that the listener is a member of the same linguistic community as the speaker in such a case switching to the shared mother tongue will be the unmarked code.

Another type of unmarked code-switching is what Myers-Scotton has christened code switching itself being an unmarked choice. This happens when the speakers involved in the conversation are all bilinguals. In such circumstances, there is no need in change in situation before code-switching commences. This is the type of switching illustrated in the extract below.

(3) **Bɔla, anaa rubbish, aha rubbish.... ɛ te sɛ papers yɛ kɔ piki a na yɛ de agu mu. Aha yɛ pra boa ano a, na yɛ de agu mu. W'ahu aha wheel barrow nso yɛ adeɛ baako a yɛ bɛ use. Sɛ ɛ yɛ no demonstration. ɛnti wheel barrow nso yɛ baako. Sɛ mo ahu?**

This serves as an example of an unmarked code-switching because both the teacher and the pupils speak Akan and English and therefore, no change in the situation triggered the observed code-switching.

The third type of code-switching is the marked type. A language choice is considered marked because it operates within the context of an unmarked variety. If a speaker intentionally or unintentionally uses a code that contrasts with the expected RO set,

then it becomes marked and speakers recognize it as such. Myers-Scotton (1993) argues that a marked choice 'is a negotiation against the unmarked RO set' (Myers-Scotton 1993: 131) and secondly, it calls for another RO set. She argues that marked code-switching is used to 'negotiate a change in the social distance holding between participants, either increasing or decreasing' (1993b:132). It may be used to index superior education, affection, authority or ethnicity. The marked code in our schools is the local language of the area and therefore, its use by teachers is optional. Teachers who use it may have a reason for their choice. The use of the marked code in our pre-school by the teachers decreases the social distance between them and their pupils as the extract below shows.

(4) Tr: We have television. The common name is TV. You all know TV?

Chn: yes

Tr: **Aha, deε n bio?**

(Aha, what again)

Chn: bulb

Tr: We can say electrical bulb. Is that ok?

The use of Akan by the teacher in turn 3 does not increase the social distance but rather indexes ethnic identity. Here the use of Akan by the teacher is a demonstration of their shared knowledge of Akan which is the L1 of most of the pupils.

2.6.3 Communication Accommodation Theory

It is the process by which participants in a conversation adjust their diction or accents or other aspects of language according to the speech style of the other participants. The theory assumes that people adapt their communicative behaviour and message content in an effort to be perceived favourably by high social status individuals. This

theory, developed by Howard Giles (1971) seeks to explain why people use speech to minimize or emphasize the social difference between them and their interlocutors.

This theory espouses the idea that when a speaker wants to seek approval in a social situation, they most probably converge. That is, they imitate the speech habits of their interlocutors even if they have lower social status. This is what he calls convergence. Convergence therefore, describes how an individual shifts his speech patterns in various interactions so that they more closely resemble the speech patterns of his interlocutor(s). These include features such as phonetic changes (e.g. changing pitch and prolonging pauses) and language shifts. For example, in Ghana, English is the medium of instruction. Ironically, most of the children at the pre-school level have no or little knowledge of the English language. The question one asks is, how are the teachers able to teach these children in English when they (pupils) have little knowledge of the language? They are able to do this by adjusting their (teachers) speech habits to the level of these children so that they can be understood. The theory explores the various reasons why individuals use speech and paralinguistic features in order to try to emphasize or minimize the social differences between themselves and their interlocutors. According to this theory, when speakers seek approval in a social situation they are likely to converge their speech to that of their interlocutors.

Contrary to convergence is divergence. In divergence, the aim of the individual is to emphasize social difference. Here, the speaker uses accent that is peculiar to his own group. Divergence therefore, is akin to what Gumperz (1972) calls 'We Code'. It can thus be used as a way to indicate power or status differences. Because a person's speech style affects the impressions that other people get from them, as well as how their interlocutors judge the conversation, individuals adapt their style according to the setting, the person to whom they are speaking and the conversation topic. A

cardinal principle of CAT is that language and behaviours impart information about social status and group belonging. An individual in a conversation therefore, adapts his speech style according to the setting, the topic and the participants because of the awareness that peoples' perception of him is based on his speech style. This theory has however been criticized for being too idealistic. It cannot always be accurate to argue that people will like you if you imitate their speech habits or people switch codes to be liked by the listener. As the Markedness Model postulates, a speaker initiates choices to change the existing situation and to achieve their communication goal. Code-switching can thus be used by a speaker to get attention from the audience who are able to interpret the switches because of the normative factors operating in the community. Similarly in the data, the pre-school teachers do not switch codes because they want to be liked by their pupil but rather they switch codes as they think that is more rewarding than using only English with their pupils. In view of this, the Speech Accommodation theory will not be used in this study.

2.6.4 The Matrix Language Frame Model

The Matrix Language Frame (MLF) model of Myers-Scotton (1993) has received much attention from scholars concerned with the grammatical properties of code-switching (CS). The MLF model theorizes that the “morphosyntactic frame” of a code-switched utterance is set by a “matrix language” (ML), with “embedded language” (EL) morphemes from another language inserted into this frame. The central claim of this model is that in a conversation, a switch cannot happen unless the grammars of the two languages keep their functional status intact. In other words, the grammar of the languages involved in the switching need to map onto each other. In defining the matrix language, she explains that in code-switching, especially where two languages are involved, one of the languages is more dominant than the other. According to her, this more dominant language

which determines the ‘order of elements’ in the utterance is the Matrix language. That is, it forms the structural rules of the code-switched utterance and that, function morphemes can only be drawn from the matrix language. Explaining further, Myers-Scotton claims that the matrix language is the language of more morphemes whereas the language of a fewer morphemes is the embedded language. The embedded language is therefore, the inserted language. As has been mentioned earlier in section 2.3 above, this argument does not hold in a kindergarten classroom. This is because the the matrix or embedded language may change in the course of even a single conversation depending on the activity at hand.

The MLF operates on three main principles namely; *The Morpheme Order Principle*, *The System Morpheme Principle* and *The Blocking Hypothesis*. Since my aim in this study is not to do the grammatical analysis of code-switching, I have decided to give a just a summary of each principle

(i.)The Morpheme Order Principle argues that in matrix- embedded language constituents consisting singly occurring embedded lexemes and any number of ML morphemes, surface morpheme order (reflecting surface syntactic relations) will be that of the embedded language.

(ii) The System Morpheme Principle postulates that in ML + EL constituents, all system morphemes which have grammatical relations external to their head constituent will come from the ML.

(iii) The Blocking Hypothesis holds that in ML + EL constituents, a blocking filter blocks any EL content morpheme which is not congruent with the ML (Myers-Scotton, 1993, p. 83-120).

Given the distinction that the model makes between content morphemes (e.g., nouns/verbs) and system morphemes (e.g., inflections/articles), the first principle postulates that the matrix language determines the order of the elements in ML + EL constituents, because there is a fundamental difference in the distribution of content and system morphemes. The second principle argues that function morphemes can only be drawn from the matrix language. The Blocking Hypothesis on the other hand, restricts the role of the embedded language even more by allowing only certain embedded language content morphemes to occur in mixed constituents.

As I have already mentioned, though my aim is not to undertake a grammatical analysis of code-switching in this work and therefore will not ground the analysis of the work on this theory, I find some its ideas, especially the distinction between matrix and embedded language very useful. AS Ferguson (2003: 39) observes, the introduction of the embedded language is necessary because it helps pupils to understand the subject matter; it helps teachers to motivate, discipline and praise pupils; it facilitates interpersonal relation between the teacher and the pupils.

2.6.5 Justification of the Markedness Model

This work adopts the Markedness models for a few reasons. Firstly, the data shows that the pre-school teachers in their interaction with their pupils consider all the linguistic resources at their disposal and select the code that will enable them to achieve their communicative goal with the least of efforts.

Secondly, though the use of the local language (Akan) in the classroom may be considered marked, its use by pre-school teachers in their interaction with their pupils is not seen as such. In the extract below, the teacher mixes English and Akan in his speech but none of these languages is marked in this context. The pupils understand

the teacher in the context in which the speech is made that is why they are able to contribute meaningfully to the discussion.

(5) Teacher: Washing machine, **enti nnoɔma yi nyinaa use deɛ n light ɛ wɔ fie. Sɛ annya light a ɛ ntumi nnyɛ deɛ n? () light ɛ wɔ fie. Sɛ annya light a wei entumi ɛ nnyɛ adwuma. Mo ate aseɛ ?** Put your hands down. It is ok. **Enti wei nom nyinaa bom.** They come together and we call them electrical appliances electrical what?

(Home appliance, like a washing machine for instance, needs electricity to function. Without electricity, such appliances cannot function. Do you understand? Put your hands down (To a child) is that ok? All these are the same (referring to a list of appliances on the board) these are the things which are collectively called appliances.)

Children: Appliances

2.7 Summary

In this chapter, I presented the findings of some scholars on code-switching in educational settings in Ghana and in other parts of the world. Issues related to attitudes and actual use of code-switching by teachers, have been the focus of code-switching research in recent years. The various studies suggest that code-switching plays an important role in the teaching and learning processes as pupils' participation and understanding may increase when teachers use the language(s) that are most familiar to them.

This chapter also discussed the various terms and concepts in the field of code-switching like code mixing, inter-sentential code switching, intra-sentential switching, tag switching and Gumperz's metaphorical switching versus situational switching.

The chapter finally ends with the discussions of the models upon which this study is grounded.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter, divided into seven sections, discusses the methodology used in collecting data for this research. The design of the research (qualitative and quantitative methodology) is explained. This is followed by the description of the data and those who provided them as well as the schools selected. The sampling procedure then follows after which, discussions on the research instrument and the data analysis procedures are given. Finally, this chapter closes with a summary.

3.2 Research Design

The methods used in this kind of studies are qualitative and quantitative research methods. These two methods are, however, seen as opposing methods in the area of academic research, and the choice of one over the other depends on factors like the research question, the type of data, the purpose of the study and the population one is working with (Duff, 2002). In selecting the methodology for this study, I considered these factors closely and came to the conclusion that the two methods are complementary rather than opposing and, therefore, can be combined in a single study. The combination of these two methods, it is envisaged, will enable me to get a better understanding of the phenomenon under study. This idea of combining quantitative and qualitative methods is supported by Hancock (2001), who thinks that using the two approaches enables the researcher to understand the complexities of the second language learning process. This, according to him, ultimately, has the goal of bridging the gap between the two paradigms. Using the two approaches to collect data enhances both the degree of confidence and the validity of findings (Bryman, 1992 &

Harmersley, 1996 in Gulzar, 2009). Since the phenomenon under investigation involves words as they are used in bilingual classroom, it is better to use qualitative approach which involves interviews, audio recordings and observations of the classroom interaction between teachers and their pupils. The quantitative approach was used to gather numerical data from the respondents using questionnaire methods. The reason is that some aspects of the phenomenon being investigated involve numbers. Using the two methods simultaneously will greatly enhance the validity of the study by analyzing the phenomenon from different perspectives. To this end, the study will compare the results of the questionnaires and audio recordings of the classroom sessions to arrive at conclusions.

3.3 Data and Sources

The data used in this study were obtained from six basic schools in the Dormaa municipality in Brong Ahafo Region. It consisted of questionnaire data as well as recordings of classroom interaction between the kindergarten teachers and their pupils. The data, collected in a natural environment, consisted of observed and recorded classroom interaction between teachers and their pupils. The schools were sampled from twenty- one schools in the Dormaa Municipality. Out of the six schools selected, three were private schools and the other three were public schools. The schools are; Pael Preparatory School, Yesu Mmo Preparatory School, St Dominic R/C Primary School, House of Hope International School, D.A Primary School (Dormass Basic School) and Presbyterian Primary School. The private schools, otherwise known as preparatory schools or ‘international schools’ are English medium schools at least, in theory whilst the public schools, which are supposed to adhere to the national language policy of education are perceived to be using Twi as the medium of

instruction . The researcher therefore, wanted to find out whether the classroom discourse that goes on in the public and the private schools was different or the same.

3.4 Sampling and Sampling procedure

Conducting the study in all basic schools in the country was too difficult a task for the researcher. Such a task required a huge amount of material and human resources. It also required a lot of time and, more important, it was not easy to sustain the tempo and ensure the reliability of the testing procedure. It was therefore, impracticable to study the whole population. Sampling became necessary. It was easy to study a smaller population and make inferences about the characteristics of the population on the basis of the characteristics of the sample.

The random sampling procedure was adopted in this study on the assumption that each school having a KG section in the municipality had an equal chance of being included in the sample. Having obtained the data of schools from the Municipal Education Directorate, the researcher wrote the names of the schools on slips of paper and separated the public schools from the private ones. The slips of each group were then folded and placed in separate boxes specially designed for this purpose. The boxes were then shaken and three folded slips were randomly picked from the box containing the names of the private schools. The same process was followed to select two public schools. The schools selected for the study were Yesu Mmo Preparatory School, House of Hope International School, Pael Preparatory School, Presbyterian Basic School, St Dominic Basic School. D/A Basic School (Dormass Basic School) which was added to make the number of schools six was chosen because that was where the researcher has done the pilot testing of the questionnaire of this study. The reasons for choosing this school for the pilot testing have been given in Section 3.5.4 below.

3.5 Research Instruments

I used three main tools to gather information for the current research. The instruments used included questionnaire, direct observation and audio-taping. The reasons for using these tools have already been given in section 3. 2.

3.5.1 Observation

Since the current research deals with human beings in a social context, and the purpose of the research is to provide valid interpretation of the interactional behaviors between kindergarten teachers and their children in the classroom, the researcher decided to collect the data by using the direct observation method. The researcher, prior to recording the class session of each selected kindergarten teachers, took time to observe the teachers while they were teaching. Before undertaking the observation, written permission was sought from the authorities of the schools concerned and from the teachers whose teaching sessions were going to be observed. While observing the teaching sessions, I adopted a non-participant posture making sure that my presence did not impose any kind of influence on either the participants or the environment. Being ‘a passive observer’, I had time to take notes. The choice of the classroom for observation is supported by Van Lier (1988) when he claims that the classroom is a valuable source of data that would add to the cumulative understanding that would benefit the profession, and for that matter, researchers need to observe interaction in its place of occurrence, which is the classroom. The researcher wrote down the incidents he observed and later incorporated them in the commentary. The entire period of observation lasted three months.

3.5.2 The Audio Recording

The recordings took place between 17th December, 2014 and 20th March, 2015. In all the schools, except Presbyterian Primary School, the official medium of instruction was English and the teachers in each of these schools were bilinguals. In the Presbyterian Primary School, the official medium of instruction was Twi for the kindergarten section and the lower primary while English was the medium of instruction for the upper primary.

After being granted permission to observe and record the teaching sessions, I met the teachers in whose classes I intended to do the recordings. I informed them that I was interested in the language of the pupils and therefore, pleaded with them to try and encourage the pupils to contribute the classroom discussions. Though I told them of my intention to record them when necessary, I did not tell them when exactly the recording would be done. I did all the recordings personally, except in Yesu Mmo Preparatory School where the two recordings were done by a colleague teacher of Dormaa Senior High School. I asked my colleague to do the recordings for me because the teachers whom I intended to record had been my students at the senior high schools and therefore, did not feel comfortable with my presence. In all, three hours, forty-nine minutes of recordings were obtained in a period of three months.

3.5.3 Questionnaire

The researcher used the questionnaire to describe the characteristics of the target population and their perception about the variable being investigated. The questionnaires were structured in such a way that information obtained would be specific and accurate. The questions were both close ended and open-ended questions. The open-ended type of questions enabled the respondents to express their

independent opinions. The survey was conducted to ascertain the teachers' perception about the function of code-switching in the kindergarten classroom.

3.5.4 Pilot Testing

The questionnaires were pilot-tested in Dormaa D.A Primary school (Dormass Basic School). The purpose for conducting the study was to assess the effectiveness of the questionnaire in terms of the language and the validity of results. The researcher was interested in the responses of the subjects; whether they provided answers that met the requirement of the questions on the questionnaire. Again, through the pilot study, the researcher wanted to find out whether the language of the questionnaire would be understood by the teachers (who were mostly senior high school leavers), and whether the results obtained would be reliable. Consequently, the researcher made some changes on the questionnaire. The number of the questions was increased and the language was revised to meet the comprehension of the respondents. The technical terms were however, not changed rather a decision was rather taken to have such terms explained to the respondents. There was no need to also revise the structure of the questionnaire. The choice of D.A Primary school (Dormass Basic School) was made for two main reasons:

- i. The school is a demonstration school and was set up purposely for the children of teachers who teach at Dormaa Senior High School. So within the local context, this school is considered as an "elite school". The school therefore, attracts children of civil and public servants in the town. Although a public school, it is managed like a private school. This is so because the school was established by the management of Dormaa Senior High School to train the children of the tutors most of whom were non-natives of the Dormaa Traditional Area and felt the existing public schools were not good enough for their wards. Even though it is the Ghana Education Service that

posts teachers to the school, it is under the supervision of the management of Dormaa Senior High School.

- ii. The school and Dormaa Senior High School (where the researcher teaches) share the same compound. This made the school easily accessible and enhanced the monitoring of the process.

3.6 The Participants

The participants in the study were six head teachers and twenty-five teachers, who taught a total of 418 pupils in the classes observed. Out of the total number of 25 teachers who were observed, I recorded nine teachers but used the recordings of seven teachers for my analysis because the other two did not switch code in their teaching. The subjects taught included Mathematics, Language and Literacy, Environmental Studies and Basic Science. The learners who participated in the study were aged between three and five years. The recordings were done in KG1 and KG2.

3.7 Analysis of the Audio Recording

The audio recorded data was transcribed and analyzed in terms of Myers- Scotton's Markedness Model (See section 2.6.2 above) as well as in terms of the functions of code-switching as identified from the literature on code-switching in the educational setting.

The literature on code-switching in educational setting reviewed in section 2.4 above, formed the basis for the classifying the functions of code-switching in this study. It must be mentioned that this classification is not absolute as code-switching, especially at the pre-school, is multifunctional or sometimes, has overlapping functions. This situation sometimes makes functional classification of code-switching quite cumbersome and this was the problem the author faced. The difficulty in classifying

code-switching has been acknowledged by Auer (1990 in Martin-Jones 1995) who admits that it is not possible to compile a comprehensive inventory of the functions of code-switching. This is because the number of functions is infinite. From the literature reviewed so far, it has emerged that code switching in the classroom is used for academic purposes, socializing purposes and classroom management purposes. These constitute the three main themes upon which the analysis is based. These themes have further been broken into sub-themes. Switches that perform academic functions are labeled 'A', those that have socializing function are labeled 'B' while code switching for classroom management is given code 'C'. In the analysis of the data, the teachers' real names are not mentioned; instead, each teacher has been given a pseudo name in order to ensure anonymity. The transcribed data are placed in the appendix. The transcribed classroom teaching sessions have been labeled appendix A up to G.

The following categories were used for classifying code-switches in terms of their function.

A Code-switching for Academic Reasons

- A1. For explanation (Ferguson, 2003; Bew-Daniels, 2011; Yevudey, 2013)
- A2. For checking understanding (Adendorff, 1993; Gulzar, 2009)
- A3. For encouraging learners' participation (Adendorff, 1993; Ferguson, 2003)
- A4. For repetition (Gulzar, 2009)
- A5. For easy expression (Gulzar, 2009)
- A6. For translation (Adendorff, 1993; Gulzar, 2009)
- A7. For emphasis (Gulzar, 2009)
- A8. For correction (Yevudey, 2013)

B Code-switching for Socializing Function

B1. For maintaining social relationship in class (Adendorff, 1993; Ferguson, 2003)

B2. For creating sense of belonging (Adendorff, 1993)

C Cod- switching for Classroom Management

C1. For giving instructions (Implied from the literature review)

C2. For maintaining discipline (Ferguson, 2003)

3.8 Analysis of Questionnaire

The researcher after collecting the questionnaire from subjects, who were mainly kindergarten teachers, used relative frequency distribution to analyse the data. This method was used to obtain the general percentage of the respondents' view on the functions of code-switching in a kindergarten classroom.

3.9 Transcription and Translation of the Data

Not all the teachers recorded switched code and since my objective was to look at the functions of teachers' code switching, I used the recordings of only the teachers who exhibited code-switching in their speech. All paraphrases are indented and placed in brackets under the utterances they seek to explain. The following transcription conventions adopted from the Jefferson system of notation with some slight modifications were employed in transcribing the data

- All English words are written in regular font
- All Akan words appear in bold
- The full English paraphrases are indented and put in brackets.
- (.) - Short pause

- (.2) - Pause of two or more seconds
- // - Overlapping speech
- wor- Incomplete or truncated word
- () Unclear talk

3.10 Summary

This chapter discussed the process of data collection and analysis. The qualitative and quantitative approaches were selected according to the purpose and nature of the study. The blend of the two the two is aimed at achieving valid and authentic results. The data collection exercise was done in schools. The rationale for selecting each methodology has also been given in this chapter.

CHAPTER FOUR

ANALYSIS OF FIELD DATA

4.1 Introduction

This chapter presents both the qualitative and quantitative data. The entire chapter is divided into three sections. Section A deals with the analysis of the data based on the functions of the teachers' code choice whilst Section B presents class by class analysis of the teaching sessions. Section C presents the analysis of the questionnaire data.

SECTION A

4.2 The Teaching Sessions

This section presents an analysis of the observed and recorded kindergarten classroom interactions. Instances of teachers' code-switching are presented to illustrate the specific functions that such utterances performed. In all, the study identified twelve functions that the teachers used code-switching to perform. The detailed functional analysis of the teachers' code choice is presented below.

4.3 Functions of code-switching in the Kindergarten Classroom

Here, I discuss the result of the analysis of the teachers' linguistic behaviour in the classroom. After recording the classroom interactions, I transcribed the data orthographically with the help of a colleague teacher who teaches Twi in Dormaa Senior High School. Having done the transcription, I counted instances of switches in each transcript, categorized them and then assigned each switch a function on the basis of the literature reviewed (see Section 2.4). To ensure accuracy of the count, I engaged the services of a colleague to re-count all possible switches and to offer suggestions in terms of their specific communicative functions.

The discussion is primarily based on the functions of the teachers' code choice. As indicated earlier, the chapter presents the frequency count of the switches observed in terms of their communicative functions in the transcription presented in the appendice. By giving frequency count, I am not in any way suggesting that these frequencies are absolute and therefore, fully represent the actual code-switching that occurred in these classrooms; instead they are meant to give a very general indication of the frequency with which the functions of the code-switching occurred. The illustrations will take the form of excerpts from transcribed classroom interactions. These functions have been tabulated according to the three broad themes.

Generally, the teachers' code-switching performed functions related to academic, socializing and management functions. These constitute the three broad functions under which the classification is made. From the analysis of the recorded data, it emerged that teachers use code-switching to perform functions related to academic discourse more than any of the other two functions. The details are shown below.

Table 4.1: Table describing the functions of code switching

Themes	Sub-themes/ Codified indicators	Functions	Number of Switches	%
A ACADEMIC FUNCTION	A1	For explanation	79	23.44
	A2	For checking understanding	77	22.85
	A3	For encouraging learners' participation	16	4.75
	A4	For repetition	26	7.71
	A5	For easy expression	20	5.93
	A6	For translation	26	7.71
	A7	For emphasis	12	3.56
	A8	For correction	07	2.07
Sub-total			263	78
B SOCIALIZING FUNCTION	B1	For social relation	38	11.27
	B2	For creating sense of belonging	31	9.19
Sub-total for B			59	17.50
C MANAGEMENT FUNCTION	C1	For instructions	10	2.96
	C2	For classroom discipline	05	1.48
Sub-total for C			15	4.50
Grand Total	-	-	337	100

It can be seen from the table that the teachers used code-switching to perform academic related functions more than the other functions. In all, they switched code 263 times for this function. In terms of percentage, it represented 78%. Code-switching related to socializing discourse was used 59 times representing 17.50%, while those related to class management functions had the least percentage 4.50%. This was used 15 times.

The sub-theme under the academic function that enjoyed the highest frequency was code-switching for explanation. All the teachers, who were observed, switched code to perform this function. The excerpts below, which are extracts from appendices B and G, illustrate the teachers' use of code-switching to explain or clarify issues to their pupils.

6. Tr: **Meka** things that uses electricity **yε kɔ fie a nnoɔma a ε use deε n**, light **ε wɔ fie hɔ. Wo ate aseε? Wo deε wo fie. Wo fie ankasa; wo dan mu hɔ nnoɔma a, ε use light**. They are called electrical appliances. When we say appliances, they are things that use electricity. **Nnoɔma a, ε use light ε wɔ fie woate aseε? Nnoɔma a wo plɔgu a, ε bε ma wo light aha? Wo plɔgu a ε bε gyina** light so **ama no ayε deε n? Ayε adwuma**. Without light, these things cannot what?

(When I say things that use electricity, I mean appliances at home that need power. Do you understand? In your house, and even in your room, there are appliances that use power. They are called electrical appliances. When we say appliances we mean things that need electricity to function. I mean things that use power. Do you understand? Things that will give you power as soon as you plug them to the source of power.)

Chn: Function

Here, the teacher states the concept he is teaching – ‘Electrical Gadgets’ in English but he is aware of the pupils linguistic deficiency in English, so he switches to Twi, which is the mother tongue of most of the pupils to explain or clarify the issue. This is an English medium school though; the teacher has no choice than to fall on the pupils L1 in order to better explain the subject matter. In this extract, he uses eight short sentences. Two are entirely in English, two in Twi and the remaining four are a mixture of English and Twi. Intra-sentential switching is used by the teacher to fill a lexical gap. This teacher thinks he is using the children’s L1 to explain a concept but in the process, he makes use of English items. This is so because there are certain

concepts that cannot be adequately described in the local language. This explains the teacher's use of the terms *light*, *plug*, and *use*. In fact, the teacher does not consider these words as English items because they have always been used to the extent that they have been integrated phonologically into Akan. Again, the use of the term *light* instead of electricity can be described as Ghanaianism under a process Dako (2002) calls Semantic shift. By semantic shift, she means a total shift in meaning of the item under consideration. The use of *light* instead of electricity or power is not ambiguous in the context of the utterance because the children understand the teacher perfectly. They know he means electricity. It must be noted that in this extract the teacher uses both intra-sentential and inter-sentential switching collectively to explain the concept being taught. This function of code-switching is so important that even teachers who were not native speakers of Twi also made use of it. In the extract below, the teacher who is a non-native speaker of Twi switches from English to Twi when he realizes that his pupils do not get what he is teaching them.

7 Tr :....**Wo papa meki** sure sɛ there will be food in the house “chop money”. Do you know “chop money”? (...) sɛ **ye ka sɛ** chop money, a **wo nim adekrɔ?** (...) ne **Twi, yɛ frɛ no akɔnhoma.**

(By giving chop money, your father ensures that there is food available in your house. Do you know what is meant by chop money? It is house keeping money or what we call 'akonhoma' in Twi.)

Here, the teacher wants to explain the concept “chop money”. He first asks the pupils whether they know what it is, but all the children remain silent. The silence of the children could mean that they do not understand the question or they lack the ability to express themselves in English. Knowing this, he then repeats the question, but this time in Twi, which is the L1 of most of the children, hoping that they will understand

and contribute to the discussion but he notices that the children do not in fact know what “chop money” is, so, he explains it in Twi for them. “Chop money”, in Twi is **Akonhoma** he explains. When he asks a follow up question to check whether the pupils have understood the concept, they (the pupils) all have it right. “Chop money”, it must be noted, is not Standard English. It is what has been described as *Ghanaian English* by scholars (see Dako, 2002). It is the money used exclusively to buy food items and is usually but not always provided by husbands.

The second most frequently occurring function of code-switching that was employed by teachers was A2 (code switching for checking learners’ understanding). This was normally employed through the use of questions. Here, the teacher after explaining a concept in English asks a question in Twi to find out if the concept has been understood or not. Except (8, Appendix A) illustrates this.

8Tr : Ahaa, enti they are things that we use to clean our environment. **Enti se mebisa wo se**, give me one thing that we use to clean our environment **adeε n na wobε bɔ? Se mese bɔ adeε baako din a ye de yusu** (use) **ε de klini** (clean) **ye n** environment; **bɔ adeε baako din**....yes Kingsley **bɔ adeε baako a ye depopa. Ye depra ye n** environment.

(Aha, these are the things used to clean the environment. So if you are asked to mention one of them, I hope you will be able to do that. Kingsley, mention one of them.)

Chd: mop.

Tr: se moate? Wa ma ye n one thing. Wama ye n deε n?

(Is that ok? He has mentioned one of such things)

In this short excerpt, the teacher who had previously taught the children the things that are used for keeping the environment clean, wants to be sure if the pupils had understood the lesson. She then asks a question in Twi. Through this approach, she gets to know that the lesson has been understood by the pupils. It must be noted that the use of intra-sentential code-switching in the speech of this teacher is not done to primarily check the understanding of the pupils but also to fill a lexical gap. The teacher is not a native speaker of Akan and has some difficulty describing certain experiences in Twi. This explains the use of terms such as ‘klini’ (Clean) and **yusu** (use) in the teacher’s speech. The use of these words is done to fill a lexical gap.

Again consider excerpt 9 (Appendix F) which is a short dialogue.

(9). Tr: seven! Clap for Tony (they clap) one should come and write in the box. **Baako mmra mmɛ twerɛ no wɔ box no mu.** Tony, come and write it for us. (Tony writes). Is this how we write seven? **Saa na yɛ twerɛ seven?** (Sic)

(One of you should come and write seven on the board. Is that how seven is written?)

chd: No

Tr: Yes Stella, come and write it (she writes it correctly). Clap for Stella (they clap).

Enti obiaa ateaseɛ ?

(I hope everyone has understood.)

Here, the teacher invites Tony to write seven (in figure) on the board. The teacher then asks the class (in English) whether what Tony has written is correct but the pupils remain silent because they do not understand the question. She then translates the question into Twi and the children respond that Tony is wrong. She then calls Stella, who writes it correctly. Wanting to know whether the pupils have truly understood her lesson, she switches to Twi: “**Sɛ obiaa ate aseɛ ?**” (*Have you all*

understood what I mean?) She is using this question to check the pupils' understanding of the topic being treated. Since this teacher is a native speaker of Akan and can speak Twi fluently, she does not need to fall on English to express herself within the sentence and so intra-sentential switching is missing in this excerpt. She rather uses inter-sentential code-switching for the purpose of checking understanding. She only has to use English items when she does not have the Akan equivalents of such terms.

Two functions that jointly occurred as the third most occurring functions were A4 and A6 (for repetition and for translation respectively). Excerpt 10 (Appendix C) illustrates Function A4. Here the teacher repeats what has been said previously either by himself or another speaker to drum home the message.

10 Tr: someone is holding one orange; another one is holding two oranges. **Nea esua wɔ mu kese...**

(if someone has one orange and another has two which one of them has fewer oranges?)

Chd: Baako

(The one with one orange)

Tr: Is that not it? **Enti no** if you are arranging these numbers (.) **sɛ yɛ hyehyɛ** numbers 1,2,3 **Pokuaa nea ɛ wɔhe na ɛ sɛ ɛ sɛ edi** kan?

(And so if you are arranging these numbers (.) if we are arranging these numbers, 1,2,3 which one will come first Pokuaa?)

Chd: Baako

(I will come first)

Tr: **nea ɛ wɔ he na ɛ sɛ sɛ edikan?**

(Which one should come first?)

The teacher repeats this question to ensure that the pupils really understand what they are saying and not just guessing. Repetitive function of code-switching seeks to ensure that pupils remain consistent in their responses to questions teachers ask and therefore, any inconsistency by pupils is an indication of lack of understanding, and calls for the teacher to repeat a previous statement. Excerpt 11 (Appendix B) gives an example of code-switching being used by teacher for translation. Here, what is said in one clause is repeated verbatim in another that immediately follows.

11 Tr: Without light, this things cannot function. **Annya light a, ε ntumi nnye adwuma.** So mention if you can mention them. Twumasi we have what?

(Sic)

(Without electricity, these things can't function. They won't function without power. Twumasi, mention one of such things)

The aim of the teacher here is to ensure that the pupils he is teaching get involved in the lesson. And one of the ways by which he can achieve this goal is to ensure that the pupils understand what is being taught. He therefore, has to translate sentences that are difficult for the pupils. Children at this level have just been introduced to the English language, and so if the teachers teach entirely in English without translating what is being taught into the pupils' L1, they (the pupils) become "passive observers". In fact, all but one teacher employed code-switching for this purpose. According to Gulzar, (2009:87) translation reduces the comprehension burden and makes it easier for student to focus on the important message.

Excerpt 12 (Appendix E) demonstrates code-switching used to maintain social relationship (B1) between the teacher and his students. In this example, the teacher is asking his pupils in English whether any of them has ever gone to Accra, to which a

pupil replies in the affirmative. The teacher, who is a native speaker of Akan and shares a common language with the pupil, quickly switches to Twi translating the original question from English. As expected, the child answers the question in Twi and not in English. In fact, this is the only non-academic function that was used frequently by the teachers observed. It is primarily used for its affective and solidarity effects.

12. Tr: have you all been to Accra before?

Chd: Yes

Tr: Ok, where were you staying? **Wokɔ Accra no, na wote hefa?**

(Where did you stay in Accra?)

chd: **Abrɔsan...**

(on a storey building)

Tr: **Wo tɔɔ abrɔsane? Eii ok wohuu po? Po kakraka bi, ε te sɛ Dormaa ha nyinaa. na nipa bebree edware na ba ni agye. Wo ahu? Dakoro, yɛ bɛ kɔ**
excursion about water.

(Did you buy a storey building? Did you see the sea? The sea is very big like Dormaa town. People always swim in the sea and become happy. We will one day go on an excursion there)

The function that occurred the fifth highest was B2 (code-switching for a sense of belonging). This is used by teachers to show solidarity with their pupils. It is used to imply “I am one of you”. This function of code-switching has almost no academic value.

In excerpt 13 (Appendix D), the teacher asks students to give examples of animals that live in water and a child mentions ‘whale’. But because both the teacher and the child share a common language, she asks the child to give the Twi name of whale. Again, the child gives it correctly. She then continues to explain that “Bonsu is that

fish which swallowed Jonah in the Bible. The switch from English to Twi has nothing to do with the topic under consideration- ‘animals that live in water’. It is made for two main reasons;

- i. the knowledge that most of the pupils speak Twi and
- ii. the knowledge that many of the students, like the teacher, are christians and might have heard something about Jonah and the whale. This statement is made just for reasons of solidarity and not for its academic relevance.

13. Tr: What again animals that live in water, Hakim? (Sic)

Chd: whale.

Tr: What is the Twi name for whale? Whale **ne din de sɛ n, Bright?**

(What do we call the whale in Twi?)

Chd: **Bonsu.**

Tr: Bonsu, clap for Bright (they clap) Hanna be careful! Whale, **Bonsu.** Do you get it? **Bonsu no a ɔmenee Yonna wɔ Bible mu no**, the English name is whale.

(I mean the whale that swallowed Jonah in the Bible)

Do you get it?

As regards code switching for easy expression, it was used two times by two teachers. This happens when teachers are teaching technical subjects like Mathematics and Science in the local language. In such a situation, when a teacher realizes that he cannot easily retrieve a particular term in the child’s L1, he quickly brings in the English equivalent. In the transcripts, teachers used intra-sentential code-switching to perform this function. In all, teachers used this function of code-switching 20 times representing 5.93%. The use of ‘socket’ by the teacher in the example below is

occasioned by the fact that the teacher cannot easily retrieve the Twi counterpart of the term.

14.Tr: **Saa light ahoma no a, wo use no, ansa ()** this is the socket.

(That electrical cable you are using ())

This is the socket right? Don't plug the electrical appliances when you are bare footed. **Wo ate aseε? Σε wonhyε mpaboa a, manfa, (.) εnkε fa ahoma mme hyε socket no mu.**

(Do you get it? If you are bare footed, do not plug light cable into the socket)

Is that ok? Don't go there at all. If you go there..

Using code-switching to encourage pupils' participation (A3) came sixth. Altogether, the teachers performed this function of code-switching 16 times. This represents 4.8% of the total switches by the teachers. All the teachers performed this function of code-switching except two teachers. This is employed by teachers when they realize that their pupil do not make contribution to the discussion. Pupils' non-participation in the classroom, especially at KG, is usually the result of their lack of expressive power in the L2. With this knowledge, teachers switch from L2 to L1 so that they can encourage their pupils to participate in the ongoing discussion.

In excerpt 15 (Appendix B) the teacher is teaching the children "safety using electricity" but after speaking for a considerable length of time he realizes that the pupils' participation is low. He suspects that the pupils probably, have not understood the lesson so he checks their understanding by asking a question in Twi, the L1 of most of the children, but again there is no response from the children. He therefore, explains all he has said using Twi and after this, the pupils contribute to the

discussion. The use of code-switching here by the teacher is primarily aimed at encouraging the pupils to participate in discussions.

15. Tr: Ah lets go on and again what I will say is that as you are too young like this don't plug the electrical gadget yourselves. Don't go there ; you can go and call an elderly person to help you **mo ate ase?** (.2) either your brother, your sister () they are all elderly people. If only the person is older than you that is when you know that he can do it..is it okay? (.) do you understand? (.) **wo ye akɔdaa... nnea me pɛ akyerɛ ne sɛ mɛ nkɔ hɔ; mfa wo nsa ɛ nkɔ ye deɛ n?.. ɛnkɔ ka. Mɛ mplɔgu (plug). Sɛ wo amplɔgu a wo bɛ wu anaa?**

(What I mean is that as a child you don't have to plug any electrical appliance. If there is the need, call an elderly person to plug the gadget for you. Will you lose anything if you do not tamper with electrical gadgets?)

Chd: **Daabi**

(No)

Excerpt 16 (Appendix C) shows the teacher's use of code-switching to emphasize a point. He employs this strategy through repetition. Here the teacher repeats a question earlier on asked and answered. These types of questions are normally asked in the mother tongue of the pupils. This occurred 12 times and was the 7th most used function of code-switching in the classroom. In percentage wise, it was 3.56%. The extract below illustrates the teachers' use of code-switching for emphasis.

16. **Wo ahu? Baako-** one, number 1 should be what? Number 1 should be the first number because it is the smallest in the numbers. Is that okay? **ɛno na ɛ ye dɛ n? Esua ɛ wɔ numbers no mu.** Eh? **Esua ɛ wɔ numbers no mu.** Yes, very good. Now which number is going to be the second one?

(The number, 'one' should be the first number because it is the least amongst the listed items. It is the least amongst the listed items)

The use of code-switching as a corrective device (A8) was also employed by some of the teachers. In terms of percentage of use, it had 2.07%. This function of code-switching is used to correct pupils' misunderstanding of a concept taught in the L2. When a teacher notices in the course of teaching that the pupils have misunderstood or misinterpreted a concept, he switches to the children's L1 to correct them. The problem may be related to mispronunciation, misspelling, misinterpretation etc. In excerpt 17 (Appendix A), the teacher is teaching Environmental Studies, specifically, things that are used to clean the environment. The children are asked to give examples of such, and they give a lot of things until one of them mentions a towel. This provokes laughter amongst the other children and so, the teacher has to step in and correct the child. The correction is done in the child's L1, which is Twi.

17. Tr: **Enti wei ye twitwa so a, na ye de dua tenten e de ahye mu, na yafre no de n?**

(So if we cut this and fix it onto a long stick, we get long broom)

Chn: Long broom ()

Tr: **Sε moahu?**

(Is that ok?)

Chn: Yes madam ()

Chd: Madam, Madam **bɔɔdoa** (bɔɔdoba) (the other children laugh)

(Towel)

Tr: Rita, **bɔɔdoa** is not among of the meaning itself.... Aha? **Tie, ontie; ε no deε nka nnoɔma no a, ye de popa ye n mpotam. Sε bɔɔdoa a atete deε a,wo bε tumi de apopa wo dan mu. Na bɔɔdoa a ye de popa ye n ho deε ye n use ε no. Sε mo**

**ate? Enti next time ε no nka ho. Enti saa nnoɔma nnan wei nayε de yε deε n?
Popa yε n mpɔtam. Bebreε wɔ hɔ oo. Enti yε ε san abε kan (Sic)**

*(Rita, towels are not among the things used to clean our environment... is that right?
Listen, she doesn't pay attention (referring to Rita)...that is not one of the things used
for cleaning. You can only use a towel to clean your room if it is old. A towel that is still
in use is not used to clean our environment. Have you all heard? So if next time I ask
you to mention things that are used to clean our environment, do not mention towel.
So these are the four things used to clean the environment. There are a lot of them so
we are going to mention them again.)*

Excerpt 18 (Appendix F) illustrates the teachers' use of code-switching to issue out instructions in the classroom (C1). This function is non-academic function and comes under theme C of this study. This function is related to classroom management function. This function, (C1) was used ten times by the teachers and this represents 2.96%. This is an indication that code-switching plays a very vital role in the management of the classroom.

18. Tr: Seven, clap for Tony (*they clap*) one should come and write it in the box.
Baako mmra mε twerε no wɔ box no mu.

(One of you should come and write it in the box)

In the extract above, the teacher after giving instruction in English translates the same instruction to the children in their L1. This, she does to enable her manage the classroom. It is employed when teachers want the pupils to perform specific activities.

Excerpt 19 (Appendix F) demonstrates code-switching used to ensure discipline in the classroom (C2). This function of code-switching is mainly used by teachers to ensure that there is orderliness in the classroom. Teachers, through code-switching, manage

to bring the class they teach under their control. In the example below, the teacher seems to imply ‘I am in charge’. This function of code-switching was used five times in the transcripts, representing 1.48%. In the extract below, the teacher asks a question and a child provides an answer without raising his hand. The norm in this class as in other classrooms, is that children must draw the teacher’s attention by raising their hand before answering a question posed by the teacher to the class. Once this norm has been broken, the teacher feels that her authority has been undermined. She therefore, has to act promptly to restore her authority and ensure orderliness in the classroom. She does this by shifting from English to Twi, the language the children understand better. This is illustrated below.

19 Tr: Another one (they count) (writes on the board).....Now here how many tens do we have? (A child says three) if you know it raise up your hand. **Sε me bisa wo aε m na wonim a, ka. Bīaa nsɔre ntena nedabrε nka.** (Sic)

(Now how many tens do we have? If I ask a question and you know the answer, raise your hand and say it. Everybody sit at your place)

4.4 Summary

After analyzing the transcripts, it was realized that the teachers used code-switching to perform three broad functions in the classroom- academic, socializing, and management functions. Though teachers performed all these functions, those related to academic discourse had the highest frequency. In all, the teachers collectively switched codes 263 times to perform the academic related functions which translate 78.04%. This was followed by switching for socializing function which was used 59 times representing 17.50% while code-switching as classroom management strategy enjoyed the least frequency. It was used 15 times which translates to 4.45%. Specifically, teachers mostly use code-switching for explanation. This function

enjoyed the highest percentage of 23.44% while code-switching as a disciplinary tool enjoyed the lowest percentage of 1.48%. Teachers switched codes for only 5 times for this function.

SECTION B

4.5 Analysis of the Teaching Sessions

This section presents class by class analysis of six out of the seven teaching sessions recorded. An attempt has been made to analyse the data in terms of the Markedness Model, the framework upon which the work is grounded. It also looks at the teachers' use of intra-sentential and inter-sentential with special emphasis on the reasons behind the teachers' use of either or both of them. The whole analysis is done in relation to the research questions of the study.

4.5.1 Analysis of Miss SD's Teaching Session (APPENDIX A No 1)

In transcription number1, appendix A, a female teacher is teaching Environmental Studies in KG1. She uses 296 sentences in the entire duration of her teaching. 117 sentences out of this number are a mixture of Twi and English. This is a phenomenon, Poplack, (1980) refers to as intra-sentential code switching. 74 of the sentences are in Twi while 105 of her sentences are in English. With these, she performed functions related to the three broad themes of the study -academic, socializing and management functions. Each type of code-switching was used to perform specific function. Inter-sentential switching, for instance, was used for translation and for explanation. Here, a concept was usually introduced in English and then translated immediately into Twi which is the L1 of most of the pupils. This is done to clear misunderstanding of concepts taught. The following extract illustrates this.

20a .Tr: Yɛ dɔ, adɔ na yɛ frɛ no sɛ n? Weed. Aha sɛ wo redɔ a, you are weeding.

(We weed. How do you say that in English?)

In the sentence above, although the teacher uses inter-sentential switching for translation, she is in the process explaining a concept. She explains what is meant by weeding. It is the translation from English to Twi that enables the children to understand what is being taught. It must therefore, be mentioned that inter-sentential code switching in most cases, is used to perform academic related functions.

Intra-sentential switching, on the other hand, was used by the teacher to fill some lexical gaps. Her difficulty in expressing herself in Twi, which is the L1 of most of the children, is indicative of the fact that she is a non-native speaker of Akan (Twi) and for that matter cannot speak Twi for a considerable length of time without interlacing her utterances with English items. Her use of intra-sentential switching therefore enables her to fill some lexical gaps in her interaction with the pupils. It is important to note that, the high frequency of intra-sentential switching in her speech is borne out of her dire need to fill lexical gap and make communication as easy as possible (for her). Extract 1b below illustrates this.

20b Tr: **Ahaa, saa dustbin no esi ho, wo pra wura ε wie a**, after sweeping, you gather the rubbish and you go and put it inside the dust bin.

(Aha, the dustbin is always there, so after sweeping you gather the rubbish and you put it inside the bin)

It is important to mention that the use of *dust bin* in the extract above is borne out of the teacher's failure to find its equivalent in Twi. Her use of the English term then enables her to communicate her thought smoothly to the children. The use of an English item *dust bin* then triggers a switch from Twi to English, which the speaker is more fluent in. She therefore ends this sentence in English.

Like the inter-sentential switching, the teacher used intra-sentential switching to achieve many pedagogical goals. In the extract below, the teacher uses intra-sentential switching to explain a concept.

20c. **Yε bε tumi a use long broom de apra.**

(We can also use a long broom to sweep)

In this sentence, the teacher explains a point about things that can be used to sweep. Even though the use of *use* and *long broom* fills lexical gaps and enables her to express her thought, she is at the same time explaining a concept.

Through the use of intra-sentential and inter-sentential switching, the teacher performs many pedagogical functions. She switched 57 times to perform functions related to theme A, three times for those related to theme B and seven times for those related to theme C.

Applying the Markedness Model, Myers Scotton (1993) argues that for code switching to take place, both the speaker and listener must be bilinguals. But this teacher's teaching session revealed that this assertion cannot hold for all situations, especially in the kindergarten classroom. Most of the children admitted into KG can only speak their mother tongue and it is the school which offers them their first contact with English. Especially in KG1 the pupils normally have almost no knowledge of English. Such pupils can therefore, not be considered as bilinguals. But the monolingual nature of the pupil does not prevent the teacher from switching code, as this aspect of the Markedness Model seems to suggest.

4.5.2 Analysis of Mr HH's Teaching Session (Appendix B)

In transcription number 2, a male teacher is teaching KG2 pupils about the safety in using electrical gadgets. In total, Mr. HH used 398 sentences for teaching his lesson

which lasted for 26.25 minutes. His lesson was delivered in English but occasionally, he switched to Akan (Twi), which is the dominant language of the area. 59 of his sentences were exclusively in Twi while 85 were a mix of Twi and English. With these, he performed functions related to themes A, B and C of the study (code-switching for academic discourse, code switching for socializing discourse and code-switching for classroom management respectively).

In extract 21 below, the teacher uses both inter-sentential and intra-sentential code-switching to perform functions related to theme A.

21 Tr: Light per se is very dangerous. **Enti yε bε sua ahwwεyie a ε sε sε yε yε mmrε a yε ε use light no.**

(We are going to learn about safety while using electricity)

Safety while using electricity. Is that ok? Safety while using electricity. Things that we yε dε n? Na yε yε sε nea ε bε a, yε use light a, we will not hurt, yε mpira anaa sε yε nwu.

One yε see, do not touch the electrical appliances, and those are what? Appliances which we use.(Sic)

Mmε nfa wonsa nka adeε no a, wo use no, woate aseε? Adeε no a wo use noεmmε nfa wo nsa nka. Example, iron, **woahu sε iron ho yε hye.**

(Light is very dangerous so we are going to learn about the precautions we have to take while using electricity. Things that we should do and those that we should not do in order not to hurt ourselves or not to cause our death)

In the extract above, the teacher is teaching the children about electrical appliances, especially safety while using electrical appliances. After using English to tell his pupil how dangerous electricity can be, he quickly switches to Akan (Twi) to state the

purpose of his teaching. It must be noted that this switch has no academic relevance. It is used by the teacher as an attention getting device. After this switch, the teacher switches back and forth to perform academic related functions.

For instance, sentence 6 of the extract above (which is in English) has been translated into Twi (Akan) in sentence 8. This translation is done in order to enhance the understanding of pupils about what he is teaching.

This code-switching behavior of teacher is in conformity with the Markedness Model which stipulates that participants in conversation switch code to mark their utterance so that they can get attention from the listeners (see Myers Scotton, 1993). In all, Mr. HH used code-switching to perform functions related to the three themes of the study.

4.5.3 Analysis of Mr. SH's Session (Appendix C)

In transcription number 3, the teacher, Mr. SH uses 272 sentences to deliver his lesson. His lesson was delivered mainly in English. Out of the total number of sentences used, 236 were in English, 22 were in Twi and only 14 were a blend of English and Twi. With these, he performed functions related to academic and socializing discourse. He did not use code switching to perform functions related to class management discourse. He switched codes five times each for translation (A6) and for checking understanding (A2). He also switched codes four times for explanation and three times for emphasis (A7). Under socializing discourse, he switched codes two times for social relations (B1).

In the extract below, which is taken from appendix C, the teacher who is speaking English suddenly, switches to Akan (Twi). He does this to find out if the pupils follow the discussion. It must be noted that the switch from English to Twi is unexpected

though, he manages to draw the pupils' attention to what he is doing and they consequently, contribute to the discussion (See excerpt 22 below).

22a **Tr:** Very good (.). Now, when you are arranging numbers, they tell you to arrange it in ascending order. You must arrange them from what? The smallest _ the least. **Nea ε yε deε n? Nea ε sua _ nea ε yε deε n? Nea..(Sic)**

(What am I talking about? When you are arranging numbers, do so from the least to the highest. From the ...)

Chn: ε sua. Nea ε yε ketekete kyε n kε seε .

(The least to the highest)

Tr: Very good; so we start from the smallest to the biggest number one. Is that right? (.) So we arrange these numbers from the smallest_ **Nna ε yε deε n? Nea ε yε ketewa koraa wɔ mu(.)** before we go to what? The big .(Sic)

(What am I talking about? The least amongst them)

In the excerpt above, the teacher switches code two times. In the first instance, his aim is to check whether the pupils have understood what he is teaching (A2). He therefore, asks the same question two times (in Twi) while expecting the pupils to contribute. The children expectedly provide the answer also in Twi. Very satisfied with the children's response, he switches from Twi to English again to compliment the pupils for their effort, and then reiterates the concept he is teaching. It must be mentioned that the use of Twi by the teacher is not intended to check understanding alone but also to encourage the pupils to be active in the discussion (A3). Their participation level thus becomes high.

In extract 22b below, the teacher uses code-switching for translation.

22b Tr: This shape is for Peggy; this shape is for Wendy eh? And this shape is for Peggy. Quiet, quiet. Keep quiet and look on the board! (.) Put your finger on your lip. Your finger on your lip. Very good and then this one is also for Hannah. This triangle is for who? Now looking at (.) Keep quiet. Looking at the triangles on the board, are they the same? Are they the same by size? (Sic)

Ɔmo ke seɛ se nea esi teɛ no, are they the same? Ɔmo ke seɛ se nea esi teɛ no, are they the same?

(Are they of the same size? Are they of the same size?)

In the excerpt above, the teacher has been trying to explain to the pupils the concept of ascending order. He draws a number of triangles which are of different sizes on the board. He then asks the pupils if all of them (the triangles) are of the same size but the children do not give him the right response. He then switches to Twi using intra-sentential code-switching. The decision to switch from English to Twi is borne out of the belief that the pupils do not understand the word 'size'. He then translates the first part of the sentence to Twi. By translating the English sentence verbatim to Twi, the teacher does not only use code-switching as a translation tool but also for emphasis. (For the details, refer to appendix C No. 3.)

This teacher's lesson seems to run contrary to Myers Scotton's (1993) assertion that speakers practice code-switching when there is no clear unmark code. In the situation under discussion (Excerpt 3b) above, the unmarked code for this interaction is English and in fact both the pupils and the teacher know each other's linguistic strength. So the decision to switch code by the teacher is done with the aim of aiding the understanding of most of the pupils.

4.5.4 Analysis of Miss SY's Session (Appendix D)

Miss SY's lesson refers to transcription number 4. She used a total of 308 sentences to deliver a lesson of animals to her class. 51 out of the total sentences were a mixture of English and Akan (Twi); 38 were in Akan (Twi) while 219 were constructed in English. With these sentences, she performed functions related to themes A and B that is academic and socializing discourse respectively. This lesson was dominated by inter-sentential code-switching as only 51 out of 231 sentences used in the lesson delivery were mixed sentences.

Under the academic discourse, she performed all sub-function except switching to encourage learners' participation (A3) and code-switching for emphasis (A7). Under the socializing discourse (B), she performed 2 out of the 3 functions. She switched code for social relationship (B1) and for sense of belonging (B2).

In the following discussion, I look at 3 instances in which the teacher used code-switching to perform academic related function (A) and socializing discourse (B).

23a **Tr:** Today our topic is animals. Say animals (children repeat). But before we go to animals, who can tell me the meaning of 'environment'? The meaning of environment, aha? 'Environment' what does it mean? **Sɛ yɛ ka sɛ** environment a **ɛ no koraa ne deɛ n?** What does it mean? Yes, Hakim () louder

(What do we mean when we say 'environment'?)

Chd: Things around us.

In this dialogue above, the teacher introduces the topic for discussion but realizes that before the lesson can be effective, she needs to find out whether the children understand a related concept (Environment). She then poses a question to the children in English seeking to know who amongst the children knows what the environment is.

Being aware of the children's level of competence in the English language, she quickly almost immediately switches into Twi. This switch is nothing more than direct translation (6A) of the question posed in English. The teacher's utterance which is made up of three sentences constitutes one intra-sentential switching which is used to fill a lexical gap and two inter-sentential switches one of which is for translation and the other as an attention getting device. By this translation, a child is able to explain what environment is. The response from this child then serves as a spring board for introducing the topic.

In the extract below, the teacher performs an academic related function with code-switching. Here, the specific function is that she uses code-switching to check the learners understanding (A2).

23b **Tr:** When we say 'animals', in Twi what does it mean? Animals **sε yε ka animals koraa ne Twi ne adeε bε n?**

(What is animal in Twi?)

'Animals', Blessing (.) aha what does it mean? 'Animals' in Twi what does it mean? Say it louder.

In this extract, as in extract 23a, the teacher asks a question in English and translates it into Twi. She is not performing translation function (A6). She is in fact checking the pupils' knowledge of Twi and by extension, their knowledge of a previous lesson. This is function (A2),(checking the understanding of the pupils). This teacher is not merely switching from English to Twi but she is using it to perform a specific pedagogical function. The teacher also uses code-switching for socializing function. This type of code-switching does not have academic value. Its significance lies with its affective or emotional value.

In the excerpt 23c, the switch from English to Akan (Twi) does not have any academic value for children. Here, the teacher is only trying to exploit the situation to her advantage, through the common language that she shares with the pupils. She switches from English to Twi to reduce the social distance that the use of English has created between them. The use of Twi therefore, creates a sense of belonging between the children and their teacher. This is true of the Markedness Model which stipulates that code-switching can be used to increase or decrease the social distance that exists between people. In this instance, Akan is used to decrease the social distance that exists between the teacher and the pupils through the use of English. Consider the extract below:

23c **Tr: Mɔ̀nkɔ̀.** Clap for Kissiwaa (they clap).

(Shrimps)

Do you get it? When you go home ask your mother for **mɔ̀nkɔ̀**. She will show you one. Do you get it? **Wokɔ̀ fie a bisa wo maame sɛ mɔ̀nkɔ̀ yɛ deɛ n a, ɔde bi bɛ kyere wo.**

(When you go home, ask your mother to show you a shrimp)

Do you get it? What again? Animal that lives in water.

The use of both **mɔ̀nkɔ̀** and the translation from English to Twi (**Wokɔ̀ fie a bisa wo maame sɛ mɔ̀nkɔ̀ yɛ deɛ n a, ɔde bi bɛ kyere wo**) that this teacher employs serves to indicate a sense of belonging between the teacher and the pupils. This reduces the linguistic gap that exists between the teacher and the pupils.

4.5.5 Analysis of Miss YS's Session (Appendix E)

Miss YS taught for 13.25mins. Her session refers to transcription number 5. She taught environmental studies on the topic, Water. Her lesson was dominated by

English sentences but occasionally, she spoke Akan (Twi) or mixture of Twi and English to perform function related to socializing and academic discourse. She used 150 sentences in her teaching. Out of this number, 33 sentences were in Twi while 13 were a mixture of Twi and English. With these, she performed functions related to theme B (code switching for socializing reason) and A (code switching for academic reason).

Under theme A, she switches code seven times for explanation (A1) three times to check understanding (A2) and four times for repetition.

Under theme B, she switched code three times for social relationship (B1) and four times for sense of belonging (B2).

In the following excerpts which are taken from appendix E. No.5, I present one instance each of the two broad themes under which she performed the functions listed above. Extract 24 is a dialogue between the teacher and her pupils. The dialogue is in English but the teacher switches to Twi to explain important concept she has taught the children. This, she does to ensure that the children still remember what she has taught them because the concept is very important to her.

24.Tr: Aha, what again?

Chn: Cover water always.

Tr: Sε nsuo a esi hɔ a daa yε nom yi, wo nkoaa wode cup bε saa bi nomeaa, na woabue so to hɔ, na nwanse na bε ε wuram, na ntontom bε ε wuram: na nkura akε seε bε ε tɔm. Wobε yε dε n aanom? Enti ε yε a, na woayε dε n? Na woakata so kama kama. What again yes...

(Take for instance, our *drinking water which is supposed to be covered, you fetch (with a Cup) and you leave it uncovered and insects and mice fall into it, we can't drink it. So always make sure you cover drinking water*)

In the excerpts above, the teacher's switch from English to Twi is informed by her desire to let the children know the importance of covering drinking water. Using an illustration, she paints a horrifying imagery of the danger associated with leaving drinking water uncovered. The use of Twi, the children's L1, is appropriate because at this stage, it is the language in which they are more comfortable. The use of Twi apart from helping the teacher to better explain the concept also marks the dual identity of both the teacher and the pupils. By choosing to speak Twi, the teacher is in effect, narrowing the linguistic gap and by extension, the social gap between her and the pupils. According to Giles (1971) if a speaker wants to have social acceptance from his interlocutors, especially low level individual, he adapts to their speech habit. The teacher therefore, speaks Twi so that she can reduce the social gap that exists between her and the pupils. The use of the word *cup* may not be considered as borrowing if one uses Poplack (1981) criterion. Even though, the word is used to fill a lexical gap, it has not undergone the phonological and morphological integration that she talks about. The use of *cup* therefore, makes this utterance a code switched utterance.

4.5.6 Analysis of Mr. HP's session (Appendix G)

In transcription number 7, a male teacher, Mr. HP is teaching Environmental Studies in KG2. He is teaching the role of parents in the family. In all, he uses 162 sentences. Out of this number, 45 are mixed sentences of English and Twi items, 84 are exclusively in English while 38 are in Twi. With these, he performed functions related to all the three broad functions of code switching. More than one-quarter of his sentences are a blend of English and Twi. Though a non-native Akan speaker, he can communicate fairly in Akan. He can therefore be described as a bilingual. His use of Twi in the delivery of his lesson is borne out of his knowledge of the linguistic capability of pupils and the cost involved in using only English in his discussion. In

the extract below, the teacher speaks English for a considerable length of time without using Twi and when he asks a question to check the children's understanding, the responses clearly show that they have not understood the concept being taught by the teacher.

26a **Tr:** I did not attend school and so what? Yes Rejoice, what is parent?

Chd: Parent is a father, mother, sister and brother.

Tr: I told (.) good girl Rejoice! Rejoice said that...mother, father, sister and brother - they are parents. Good, clap for her (they clap). But don't forget she said the family is what? Your father, mother, sister and brother. So family and parents are the same eh?

Chn: Yes

Tr: Are they the same?

Chn: No

Tr: Family and parents they are not the same

Chn: No

Tr: Then it means Rejoice what you said is somehow correct (.) There is a small mistake somewhere, so someone should correct Rejoice for me. Rejoice is not wrong yet.

This is an indication that the exclusive use of English in the kindergarten classroom cannot produce the expected result. Being aware of this fact, the teacher tries to consciously use Twi, which is the L1 of most of the pupils, in his lesson delivery. But he himself is not very competent in Twi so, he resorts to intra-sentential code switching to explain some concepts to the pupils or just to express himself. In the extract below, the teacher's use of English items while speaking Twi enables him to better express himself or better explain a concept to the children. Apart from using

Twi as a tool to better express himself, it also helps him to reduce any social gap that the exclusive use of English will create between him and his pupils.

26b. **Tr:** So every week **biara no, na wo papa ayi sika bebree na ɔde abɛ wo maame sɛ adeɛ kye** when you go to school **a, ɔma wo** one cedi then you go and buy food **ne wo maame de ama wo eh? Baabi a wote no**, if you have a room. The house you live in, **na wo papa yɛ adwuma a, na woayi sika afiri Gambia** to look for a room **sɛ nea ɛ bɛ yɛ a, Prosper bɛ da hɔ. Na wo maa me akɔpɛ dan no. Enti hwan na ɔpɛ ɛ dan no maa wo?**

(Every week your father sends money to your mother to be given to you when you are going to school in the morning. So when you are going to school she gives you one cedi to buy food. Even where you live...if you have a room... the house you live in, it is your father who sends money from the Gambia so that Prosper will be comfortably accommodated. With the money your father has sent your mother will look for accommodation. So who is paying for your accommodation?)

In this extract, the teacher's code switched utterance is so complex that it is difficult to determine which language is the Matrix and which one is the embedded language.

4.6 Summary

In looking at the various classroom interactions between the teachers and their pupils, it can be seen that most of the teachers switched codes at varying degrees. It must be noted that some of the teachers abused code-switching by sometimes mixing Akan and English in one sentence when they could actually rely on one of the languages. There is enough evidence in transcriptions 1, 2, 3, 4, 5, and 7 to prove that teachers used code-switching to achieve certain pedagogical objectives. It was also established that teachers do not only switch code for academic reasons but also for reasons related to classroom management and for social discourse.

Another reason that occasions the use of the code-switching by teachers is that sometimes in their lesson delivery, they encounter situations where they find it difficult to use the L2. In such a situation they resort to the L1 of the pupils. This is because some of the teachers themselves seem to communicate more easily in Twi than in English. Using Akan therefore, promotes classroom communication since it also enhances the expressive power of the pupils.

In terms of inter-sentential and intra-sentential dichotomy, the analysis shows that the latter was mostly used by teachers to fill lexical gaps. A comparative analysis of the teaching session showed that teachers who were non-native speakers of Akan (According to the questionnaire) used more intra-sentential code-switching than the native speakers of Akan. In transcription number 1, Appendix A, 39.5% of the teacher's sentences were a mixture of English and Twi so also was Appendix F, where 27.8% of the teacher's sentences were intra-sentential code-switching. As can be seen from the above, more than a quarter of the non-native Akan teachers' sentences were intra-sentential code switching. Appendix B, C, D and E are teachers who are native speakers of Akan and therefore made use of relatively a small number of intra-sentential code switching. In terms of percentage of total number of sentences, they have 21.4%, 5.1%, 16.6% and 8.7% respectively. What this means is that teachers who were more competent in Twi used a higher percentage of inter-sentential code switching than those who were less competent in the children's L1.

SECTION C

4.7 Interpretation of the Questionnaire

4.7.1 Introduction

This chapter looks at the results of the quantitative data obtained from the sixteen subjects. It uses tables, charts and histograms to present pictorial views of the

variables and then an analysis of graphical information of the respondents is explained.

4.7.2 Analysis of Demographic Information of the Population

Table 4.2: Demographic information of the sampled population

		Number of teachers	%	
Gender	1	Male	4	25
	2	Female	12	75
	Total	Total	16	100
Age	1	15-24	8	50
	2	25-34	5	31.25
	3	35-44	2	12.5
	4	45+	1	6.25
		Total	16	
Teaching Experience	1	0-5	11	68.75
	2	6-10	4	25
	3	11+	1	6.25
		Total	16	100

4.7.3 Interpretation of the Demographic Information.

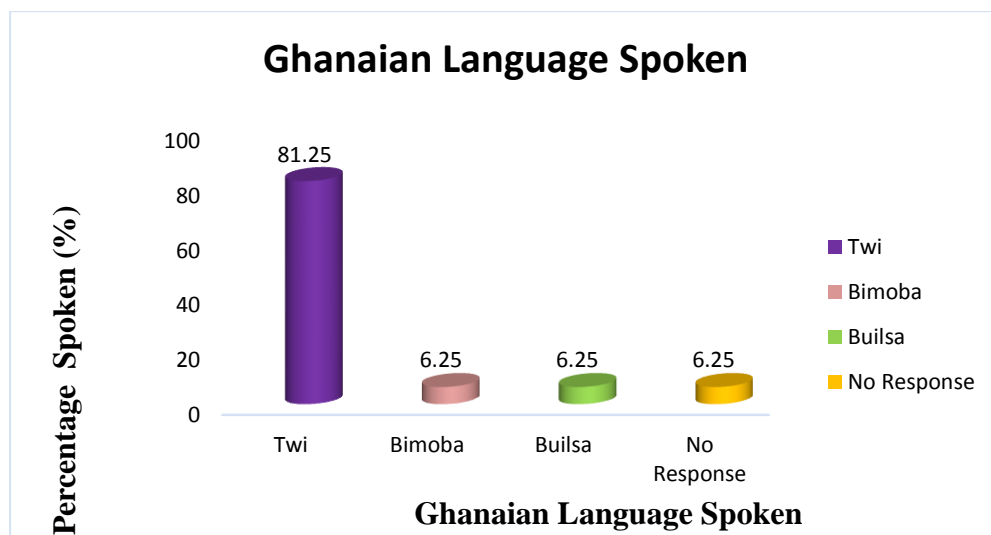
i). Gender: The total number of respondents was sixteen (16). Out of this number, the female respondents represent 75% while the male subjects represent 25%. There is a wide difference between the males and female subjects. This indicates that the pre-school level of our education is more attractive to females than males.

ii). Age distribution: Eight (8) subjects were between the ages of 15 and 24. This represented 50% of the sampled population. Five (5) of the subjects, representing 31.25% were between the ages of 25 and 34. Two (2) respondents, representing 12.5% fell within the age bracket of 35 and 44 while there was only one (1) respondent, representing 6.25% who was 45 and above. The analysis of the age

distribution indicates that teachers at the kindergarten level are young people some of whom have just completed senior high school.

iii).Teaching experience of the sampled population: Eleven (11) subjects, representing 68.75% reported that they had worked for not more than five (5) years while 4 respondents (25%) indicated that they had between 6 and 10 years working experience. One (1) subject (6.25%) had more than ten years working experience. The information provided by this analysis shows that most teachers at the pre-school level in the Dormaa Municipality do not have enough teaching experience.

Fig. 4.1: Ghanaian Languages Spoken By Respondents



Source: Field Survey, 2015

Ghanaian languages spoken: 6.25% of the respondents did not provide any response to this question. All the respondents indicated that they could speak only one Ghanaian language. 81.25% which translates to 13 subjects could speak only Twi. One respondent each could speak Bimoba and Builsa. Percentage wise, they each constituted 6.25%. The information provided by this figure indicates that the greater percentage of the people spoke Twi. This is so because Dormaa is an Akan speaking

town. Even though the information through this analysis shows that none of the respondents could speak more than one indigenous language the the information provided by the recorded data told a different story. There was no teacher who could not speak Akan as the questionnaire data indicated. The high percentage of Akan speaking subjects gives the reason why the type of code-switching prevalent in Pre-schools in the Dormaa Municipality is Akan/English code-switching.

Table 4.3: Teachers' Competence level in Ghanaian languages and English

	Variables	Number of teachers	%
I	Competence level in spoken Twi		
	No response	1	6.25
	1 Full competence	10	62.5
	2 Moderate competence	3	18.75
	3 Not at all	2	12.5
	Total	16	100
ii	Competence level in spoken English		
	No response	2	12.5
	1 Full competence	8	50
	2 Moderate competence	6	37.5
	3 Not at all	-	-
	Total	16	100

4.8 Analysis of teachers' competence level in Twi and English

i). **Competence level in spoken Twi:** Ten (10) subjects reported that they have full competence in spoken Twi. This number represented 62.5% of the sampled population. Two respondents, representing 12.5% said they could not speak Twi at all while 3 subjects constituting 18.5% reported that they had a moderate competence in Twi. One respondent however, did not provide any response to this question. The percentage of respondents who have full competence of Twi is high because Dormaa is an Akan-speaking community and Twi is the dominant language. In fact, Twi is the first language of the majority of the people. The overall effect of this is that teachers

in their teaching cannot resist the temptation of using Twi, which is the L1 of majority of the children. The use of Twi in the KG classroom in the Dormaa Municipality is an unavoidable phenomenon.

ii). **Competence level in spoken English:** 8 subjects (50%) indicated that they had full competence in spoken English. 6 respondents said that they had moderate competence in spoken English. This represents 37.5% of the respondents. Two subjects however did not indicate their competence level in spoken English. The result of this analysis shows that almost all the respondents said they had some knowledge of the English language, and therefore can communicate their thought with their pupils without having to rely on the L1 of their pupils but the recorded classroom interaction between the teachers and their pupils indicated that some of the teachers do not have a strong command over the English language, and therefore may have used the children's L1 as a cover up for their inefficiency in the English language. They therefore, always fall on the children's L1 to explain certain concepts in their teaching. The pre-school teachers' linguistic choice in the Dormaa municipality is a blend of English and Akan.

Table 4.4: Languages used by kindergarten teachers in their teaching

I	What language(s) do you use in teaching your pupils?		Number of teachers	%
I	1	English	5	31.25
	2	Twi	2	12.5
	3	Both	9	56.25
		Total	16	100
ii	How often do you use both Twi and English in your teaching?			
		Always	10	62.5
		Occasionally	5	31.25
		Not at all	1	6.25
		Total	16	100

4.9 Analysis of languages used by kindergarten teachers in their teaching

i) The table shows that 9 respondents (56.25%) indicated that they used English in their teaching. Two of the teachers, representing 12.5% reported that they used Twi in their teaching while 5 subjects (31.5%) said that they used both Twi and English in their classroom interaction. Though seven of the respondents, representing 43.75% said they used either only English or only Twi in their teaching, the recorded data revealed that there was no teacher who did not mix the two languages. It was found that teachers who had more than five years working experience used both Twi and English in their teaching. This means that experience to some extent plays a part in the teachers' choice of a language.

ii) During the analysis, it was established that all the respondents, except one admitted using Twi and English at varying degrees. 10 subjects, representing 62.25% reported using both English and Twi all the time. 1 respondent (6.5) reported that he never used both Twi and English in his teaching. Five subjects (31.25) however said that they used both languages occasionally.

The high percentage of subjects who reported using both English and Twi frequently in their teaching goes to establish the point that the subjects knew the importance of using both English and Twi as the media of instruction in the KG classroom. This may be due to the reason that the children at this level of education may not have acquired the competence necessary to be taught only in English. Therefore, the pervasive use of code-switching by pre-school teachers in the Dormaa Municipality is aimed at meeting the linguistic needs of the preschool pupils. The responses given by the subjects enabled the researchers to establish the factors that condition the KG teachers' code choice.

Table 4.5: The Communicative Function of code switching

	For what reasons do you sometimes code switch in your teaching?		Number of respondents = 16	100%
I	1	For explanation	10	62.5
	2	For translation	10	62.5
	3	For easy expression	9	56.25
	4	For building up learners' understanding	9	56.25
	5	For encouraging learners' participation	6	37.5
	6	For repetition	4	25
	7	For correction	4	25
II	8	For maintaining social relationship	-	-
	9	For creating a sense of belonging	-	-
Iii	10	For classroom discipline	2	12.5
	11	For getting and keeping learners' attention	8	50
	12	For general instruction	-	-

4.10 Analysis of the communicative functions of teachers' code-switching

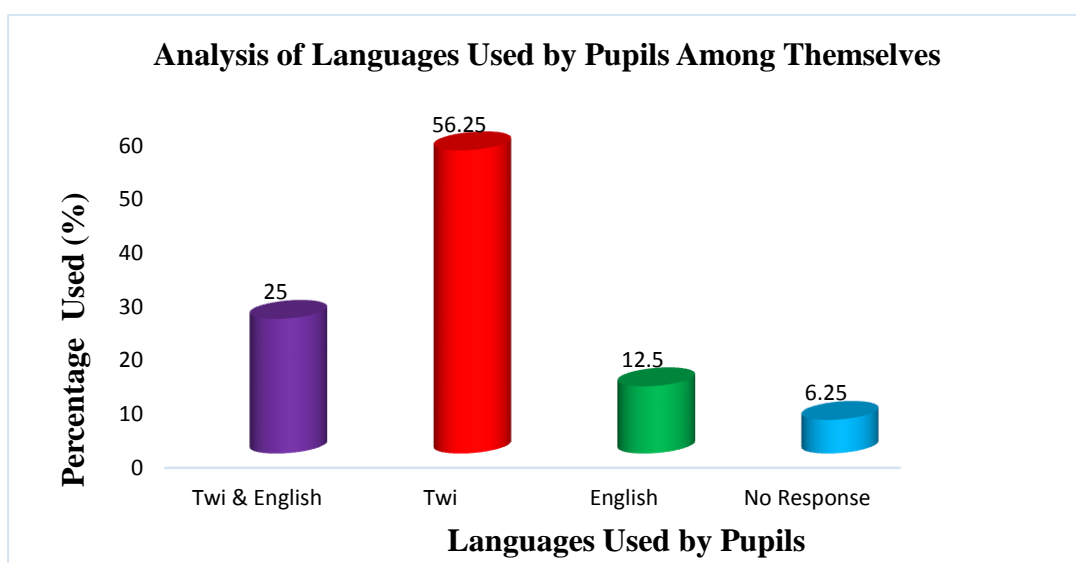
i). Academic reasons: As can be seen from the tables above, most of the responses provided by subjects were those related to academic reasons. All the subjects stated that they code-switched to perform academic related functions. 10 respondents said that they code-switched to explain the subject matter to their pupils. This number represents 62.5% of the sampled population of 16. Another 10 subjects, also representing 62.5% also said they code-switched to translate the subject matter to their pupils. 9 respondents (56.25%) indicated that they code-switched to build the learners' understanding of the subject matter and to allow them express themselves easily. 25% subjects said they code-switched for the purposes of repetition. The analysis of this information shows that teachers most of the times code switch to perform academic related functions. Therefore, teachers use code-switching as a pedagogical strategy in the classroom. This finding confirms the information provided by the recorded data

ii). Socializing Discourse: None of the subjects reported using code switching as socializing discourse. This clearly contradicts the information provided by the analyses of the recorded data, which revealed that teachers code-switched many times to perform this type of function. This situation is what Yevudey (2013) has described as 'a contradiction between what is done and what is said to be done'

iii). Classroom Management: 8 respondents representing 50% said that they switched codes whenever they wanted to get the attention of their pupils. 2 subjects, representing 12.5% reported that they used code-switching to ensure discipline in their classroom. As far as giving instruction to pupils was concerned, no respondent said that they switched codes to issue instruction in the classroom.

The purpose of the survey was to seek answers to the research questions of the study. Results showed that there was a pervasive use of code-switching by KG teachers as much as 56.25% of the teachers reported using both Akan and English as the medium of instruction in the classroom. This results show that most pre-school teachers in the Dormaa Municipality use two languages (Akan and English) concurrently as the medium of instruction in the classroom. Comparatively, only a small number of teachers reported using either only English or only Akan as the medium of instruction. The results again revealed that the linguistic competence of either the teachers or the pupils was a major determinant of the teachers' code choice. As regards the communicative function of code-switching the results show that teachers normally code switch to perform academic related and classroom management functions. As much as 62.5% of the respondents said code-switching helped them to express themselves and to explain difficult concepts to their pupils. Though none of the teachers said they switched codes for socializing function, the recorded classroom interaction proved otherwise.

Fig 4.2: Analysis of the languages used by pupils amongst themselves



Source: Field Survey, 2015

Fig.4.2 shows that, 6.25% of the respondents did not indicate which Ghanaian language his pupils spoke outside the classroom. 12.5% of the teachers said that their children spoke English amongst themselves outside the classroom. 9 subjects, representing 56.25% reported that their children spoke Twi outside the classroom, while 25% of the respondents indicated that their pupils spoke both Twi and English amongst themselves. This results show that Twi speaking is prevalent amongst the children. This is expected because at this tender age the only language that the children are more comfortable with is their mother tongue. Since Twi is their L1, it is the language in which they think and this may explain why teachers switch to Twi in their teaching even in the English medium schools.

4.11 Summary

The analysis of the results shows that code-switching is a common feature in the KG classroom. Teachers alternate or mix Twi and English in their teaching.

Regarding the functional use of code-switching in the class, all the subjects indicated that they code switched to either perform academic, socializing or classroom management functions. Code-switching related to academic function was rated highest, followed by those related to classroom management function. Those that were related to socializing function came last. Even though the recorded data indicated that the socializing function of code-switching was very high, the questionnaire data showed that teachers never considered code-switching as serving.

CHAPTER FIVE

DISCUSSIONS OF FINDINGS

5.1 Discussions

This study investigated the linguistic behavior of pre-school teachers in their interaction with their pupils in the classroom. It was aimed at finding out if KG teachers switch code in their teaching and consequently, one of the research questions was whether teachers switch code in classroom. (See R. Q1). The purpose of this question was to explore the real linguistic behavior of teachers in the classroom. The results of both the quantitative and qualitative data show that both the teacher and the pupils employ code-switching in their classroom discourse. From the study, it was established that the pupils follow the teachers' code switching pattern. It was observed that the pupils always spoke the language spoken to them by their teachers. If a teacher in the course of his teaching asked a pupil a question in Twi for example, the pupil responded in Twi, and if the question was asked in English, the response from the child was in English. The pupils' behaviour is understandable as they are not competent in the use of English yet. When we apply Poplack's (1980) three types of code-switching to kindergarten classrooms, the findings show that though all the three types are common in the utterances of teachers in the pre-school, they perform specific functions.

Inter-sentential code switching is mostly employed when teachers in their teaching translate something said in English, verbatim into the child's L1. It occurs in the form of the repetition of the same sentence. Adjei (2010) refers to this as a repetitive inter-sentential code-switching. The usefulness of inter-sentential switching lies in the fact that it enables the teacher to communicate his thought properly to the pupils. At this stage of the children's academic endeavor, they are only conversant with their mother

tongue and this is the time they are being introduced to the English language. Therefore, if the teacher speaks for a considerable length of time in English before explaining what he has said, the pupils will miss several vital concepts. It is then better to translate immediately, sentences that express vital concepts. Using intersentential switching, the pre-school teacher in effect becomes 'a translation expert' since his/her translation puts the child in a better position to relate concepts in the two languages. It is also worthy of mention that the intersentential switching occurs within and between turns in the kindergarten classroom. The kindergarten teachers' linguistic behaviour is very complex. Sometimes it becomes difficult to determine which language is the matrix or the embedded one. They employed code switching both from English to Twi and from Twi to English. The analysis of the data revealed that the teachers did not have a clear idea about the significance of their linguistics choice. They believed that either English or Twi can be used in the classroom, and therefore, the medium of instruction in the classroom at any particular moment was based on the discretion of the teacher.

Intra-sentential code switching was observed when the teacher was teaching technical subjects like Mathematics and Science or when the teacher was not a native speaker of Twi. This is an interesting finding because according to Poplack (1980), people who employ this type of code switching are those who have strong command in all the languages involved. What however was manifested in the schools observed was the opposite, as those who employed this type of switching were rather not competent in one of the languages. It can be argued that this type of switching was occasioned by the desire to fill a lexical gap. This condition made the use of what Dako (2002) calls 'Ghanaianism' and the use of 'hybrid' forms (mixing English and Twi in the same word) necessary. This finding was interesting because the teachers could have

avoided the hybrid forms by using English entirely in those sentences but then, since those words have undergone what Poplack (1980) calls ‘Phonological and morphological integration’ in Twi, the teachers took it for granted that they were Twi terms. In some instances, these were what a teacher said in the course of her teaching, ‘**Yεε *piiki* so. Mmo mo ahu?**’.

(We are picking rubbish. Do you get it?)

Good –very good boy. **εna sweep, yε ka sε sweep.** Sweep **nsoso, hwan na εβε tumi a ‘demonstreti’? Hwan na εβε tumi ayε sε nea yε si swiipi? Yε si sweep yε dan mu anaase abεnten?** () Now **ε deε n na yε de ε yε sweeping? ε deε n na yε de yε de yε sweeping? Nnoεma bε n na yε de yε sweeping? Yes** () **prayε, Ahaa, Prayε. εno na borεfom yε ka no sε n?**

(Clap for him! Daniel, give me a hand shake, you have done well. Who can demonstrate how we sweep? I mean how we sweep our rooms or the compound? () what do we use to sweep? What are the things that we use for sweeping? Yes, () broom. What is its name in English?)

‘*Piiki*’ is the corrupted form of the verb pick. In this context, the teacher means ‘we are picking’ and the word, *piiki* marks tense - the present progressive form. The same can be said of ‘*demonstreti*’ (*demonstrate*) and ‘*swiipi*’ (*sweep*). What this means is that when it comes to the use of the children’s mother tongue for explanation, a word can be modified and even be turned into a hybrid form. Some examples of such forms in the transcript were ‘*εmeki*’ meaning he makes, ‘*yε pεmpe*’ meaning we pump, ‘*Mesendii*’ meaning I sent; ‘*yεε yuusu*’ meaning we use, ‘*ε hyεko*’ which means it shocks.....**klini** means clean. This kind of switching was related to verbs alone. It could therefore, be argued that these hybrid forms are temporary borrowings since English words are borrowed into Twi by adding Twi case ending to them (the words) thus making them sound like Twi. Also worth mentioning are a few instances of ghanaiainism. There were terms like **chop money** and **light**. Even though these terms are English terms, they have undergone semantic shift and for that matter are

used and understood within the Ghanaian context. For instance, **light** as was used in the data meant electricity while **chop money** meant house keeping money. Whereas **light** was used as a synonym of electricity, **chop money** was used to fill a lexical gap.

Tag switching were employed by the teachers though, they were not as pronounced as inter-sentential and intra-sentential switching. The only ones used by the teachers include, ‘Do you get it?’, ‘Is that OK?’, ‘Do you understand?’ These were employed by teachers in the form of questions to check the understanding of the pupils. The limited occurrence of tag switching in the kindergarten classroom is that the very nature of kindergarten classroom interaction imposes some sort of restrictions on tag switching. The classroom interaction at this level is highly structured and is controlled by the teacher.

In terms of the second question (R. Q2), namely the factors that determine the teachers’ code choice in the classroom, it was found that a number of factors trigger the teacher’s code choice. The result of both the recorded data and questionnaire reported that teachers switch code and use L1 because KG pupils have weak proficiency in English. What this means is that if teachers use only English in their teaching, the pupils will find it difficult to understand what they are being taught. It must also be noted that most of the teachers who teach at the pre- school themselves do not have a firm grasp of the English language, and therefore, in their teaching, they sometimes find it difficult to recall certain words (in English) at the moment of utterance. This is in fact, another reason for code switching by KG teachers. The two languages involved in the teachers code switching played specific roles. In most instances, English was used for class management functions like reprimanding a child or encouraging him. This is not to say English does not play any academic role in the classroom. English was used for catching and sustaining the pupils’ attention. For

example, teachers switched from Twi to English when they moved from one activity to another. The effectiveness of this strategy lies in the fact that the pupils know at the sub-conscious level that they have to pay more attention to the teacher's words as English is not their stronger language.

Another finding that was made in relation to the second question was that the amount of the teachers' code-switching depends very much on the subject and the topic being treated. In the analysis of the recorded classroom interactions, it was revealed that teachers switched code more often when they were teaching technical subjects like Science (environmental studies) and Mathematics than when they were teaching language and literacy (English/Twi). The reason being that most concepts in these subjects are foreign and in fact, do not have their equivalents in the L1 of the pupils. In such situations the teachers employed code switching both from English to Twi and from Twi to English. When the teachers switch from English to Twi, their reasons may be to make sure everyone understands what they are teaching or to check that everyone understands the concept being taught. This pattern of switching was occasioned by the fact that the majority of the teachers and the children share a common language. The teachers therefore, employ code-switching not only as a tool to impart knowledge but also as a diagnosing tool. These code-switching practices by the teachers are conscious, since by employing code switching, the teacher can for instance help pupils who do not understand the material they are being taught. However, sometimes, there are occasions when a teacher's switch to Twi is not planned but is accidental and is triggered by the pupil's code choice or some other behavior during classroom discussion. Sometimes in the course of the lesson delivery, some of the pupils are found to be engaged in unrelated activities such as playing amongst themselves, noise making, fighting or even trying to answer the teachers'

questions when they have not been called. In such situations, a teacher speaking English may switch to the mother tongue to reprimand them. The intervention is brief and does not go beyond a sentence.

As regards the third question, (R. Q3) namely why teachers code switch, it was found that teachers use code switching not only for academic reasons but also for socializing and for class management purposes. The study revealed that teachers mostly switch code to perform the academic related functions like translation, explaining a concept, checking understanding, encouraging the participation of learners, repeating a concept, emphasizing a point, correcting pupils and sometimes for easy expression. There was no teacher in this study who did not perform an academic related function by means of code-switching. This is so because this is the first time the child has come into contact with English and does not have any other language aside their L1. Teaching them entirely in English therefore, becomes an impossible task for the teacher as there will be no comprehension on the part of the pupils. Teachers therefore, use code-switching as a bridge between the home language and the school language. It must be stated that the languages involved in the switching perform specific functions. When it comes to the introduction of new concepts and the issuing of general instruction, English is used while explanations, translations, corrections and specific instructions are given in the children's mother tongue.

One interesting finding was the discrepancy between the recorded speech data and the questionnaire data regarding the socializing function of code-switching. Whereas the questionnaire data showed that none of the teachers considered that their use of code-switching was for socializing discourse, the analysis of the recorded data revealed that many of the functions identified were for socializing discourse. Socializing

functions like establishing social relations and creating a sense of belonging are always done in the children's mother tongue (Twi).

The study also found that in the kindergarten classroom, the pupils hardly initiate code-switching, and any time they do, it is in response to a teacher's question. This switching normally performs socializing functions. This finding confirms that of Gulzar, (2009) that the pupils do not initiate code-switching in content related talk. But as I have already indicated, the aim of this study is not to investigate the pedagogical relevance of the child's code choice, and therefore issues relating to the code-switching practices of children can be investigated further. What this study sought to do was to investigate the possible reasons for code-switching in the classroom but as has been noted by Martin Jones (1995), code-switching performs so many functions in the classroom and therefore, it is practically impossible to compile an inventory of these functions.

5.2 Contribution of the study

One area that has not received much research attention in Ghana is the linguistic behavior of teachers and children at the preschool level. Through this study, awareness has been raised about the non compliance of the language policy by teachers in our pre-schools, and issues relating to the medium of instruction have always been left to the discretion of the teacher. This study therefore, highlights the discrepancy between the national language policy and classroom language practices. This has many implications for teachers and administrators.

For the teachers, they should know that even though code-switch helps them to pass information to their pupils, they should use it carefully. The ratio of the use of L1 and English should be clearly spelt out by policy makers and teachers should apply it strictly in the classroom.

For the policy makers, they must ensure that professional development programmes are designed for pre-school teachers since the pre-school is the foundation of scholarship.

Apart from this, there is the need to revise the curriculum and provide pre-school textbooks. Currently there are no common text books available at the various pre-schools, as the researchers observed two different course books on Environmental Studies for KG1 in the schools.

In the appointment of teachers at the pre-school level, priority should be given to teachers who can speak the L1 of the majority of pupils. This, it is believed, will make the employment of code-switching more purposeful and meaningful.

The educational system as we have in Ghana currently can be seen as being monolingual. Depending on the level, the teacher is supposed to use either English or local language of the area in the classroom. This kind of system is not suitable for a multilingual country like Ghana. Therefore, the researcher supports Gulzar's (2009) recommendation that the educational system in a multilingual country like Ghana be designed on the pattern of bilingualism. This will make the pupils bi-literate, and also give the pupils' mother tongue importance in the educational curriculum.

5.3 Direction for Future Research

As mentioned in the first chapter, research on the topic under investigation is in its infancy. This makes the information on classroom discourse at pre-school level especially in Ghana, very scarce. The researcher therefore suggests that in future the following can be investigated.

This study concentrated on the linguistic behavior of the preschool teachers, without placing much emphasis on the pupils' utterances. In future, a study can be done on the

aspect of bilingual classroom discourse where the linguistic behaviour of the children will be the focus.

Again, in this study the teachers were only recorded but were not interviewed for them to express their opinion on their code-switching behaviour. It will therefore, be good to conduct interviews to establish whether pre-school teachers are aware of their own linguistic behavior. Another area that can be looked at in the future is a comparative study of male and female teachers' pattern of code switching in the kindergarten classroom.

5.4 Conclusion

The findings of this study show that the overall results are in conformity with other studies conducted in educational settings in both Ghana and outside Ghana (Martin Jones, 1995; Arthur, 2001; Ezuh, 2009; Brew Daniels, 2011; Quarcoo, 2013 and Yevudey, 2013). This study has shown that code switching occurs even at the very basic level of the Ghanaian educational system like the kindergarten. This is a confirmation of Aguirre (1988 in Gulzar, 2009), who argues that code switching is unavoidable with culturally and linguistically diverse children. In fact, when it comes to classroom discourse in the pre-school, code-switching is the main language regardless of the topic or the teacher involved.

Again, code-switching, according to the findings of this study, appears to be a useful tool that helps the pre-school teacher to check understanding, to explain a concept, to correct pupils, to socialize, to manage the class etc. The current study therefore, supports the argument that code-switching should be considered as an extra linguistic source and not the only source as suggested by Ezuh (2009) to be applied in the classroom, especially, at the very basic level of our educational ladder. The reason is that the kindergarten is a critical stage of the child's intellectual development and if

code-switching is used as the only medium of instruction without control, the quality of their language, especially the English language, will be affected because children at this stage learn, especially language by imitation and therefore, the teacher should provide the child the right model or input.

This study has again revealed that the languages involved in the code-switching utterances of the teacher, especially at the pre-school level play distinct roles, though the children seem to favour English over Twi. They see the latter as a non-academic language and teachers who use Twi in their teaching hardly enjoy the co-operation of their pupils. There were instances when teachers used Twi entirely in their teaching and the pupils made a lot of noise. Class control in these instances almost became impossible.

The findings of the current study suggest that code switching is not thought of as a forbidden practice or bad behaviour. The teachers allow the pupils to use code switching; they do not indicate verbally that they want the pupils to use English in certain situations. But as has already been mentioned, by their own language choices, they are able to demonstrate to the pupils that for instance, English is the only language in some situations. This is shown by the way the teachers respond in English to a pupil's Twi questions or the way they quickly go back to speaking English if they switch to Twi due to a lapse or a pupil's code-switching.

Furthermore, the findings show different patterns of code switching operate in the private and public schools. Whereas in the private schools, the teachers' language is dominated by English, the reverse is what pertains in the public schools.

To conclude, Twi and English go side by side in the kindergarten classrooms, and though both languages seem to have their own functions, some of the functions overlap.

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APPENDIX A

DURATION 19:12

ENVIRONMENTAL STUDIES

TRANSCRIPTION NUMBER ONE

- Teacher: Keeping the environment clean.
- Children: Keeping and the environment clean.
- Teacher: No, **ε nyε** keeping and the”, keeping the (.)
(It is not keeping ‘and the)
- Children: Keeping the
- Teacher: The environment clean
- Children: the environment clean
- Teacher: All of you again!
- Children: Keeping the environment clean.
- Teacher: **εnora ye sua** *keeping the environment clean. Hwan na ε be tumi akyere me aseε ? Environment, aseε ne se n? Aha? Me se se wonim a pagya wo nsa.*
(We learnt how to keep the environment clean yesterday, who can explain it to me? Raise your hand if you know.)
Environment **aseε ne se n? wonim a pagya wo nsa, na w’aka.**
(What does environment mean? Raise your hand if you know.)
Put up your hand and tell me what the environment is. ()
Methusela, Aha, what is environment? Environment **ye deε n?**
(What is environment?)
- Methusela: **Ye n mpatamu.**
(Our surroundings)
- Teacher: **Ye n mpatamu. Good! Mo mmε mo nsam mma no** (they clap). **Ye n mpatamu ha ye ye n environment. Ye dan mu ha ye ye n environment. Wokε abεnten; efiri ye sukuu ha kεfa babia εtεn aduane no nyinaa ε san ba kosi efie kwanso ne abεnten no nyinaa ye ε deε n adeε ?**
(Good, clap for him. The environment is our surroundings; this classroom, the compound including where food is being sold. All these constitute what?)
- Children: Environment.

Teacher: **Enti ε nne ye reba abε ua adeε n nnooma na ye de bε ye nenvironment ho ban.**

(Today we going to talk about things that we use to clean the environment)

εdeε n na ye deuseε de bε ye n environment ho ban? (.) ε nora ye kaa se ε ha ε ye sukuu aha.

(What do we use to clean the environment? (.) yesterday we mentioned that our school is an example of environment.)

Rashida tena yie, na hwe ha.

(Sit properly and listen, Rashida!)

Clean nso ye deε n? Ye se adeε ye clean a, aseε ne se n, yes?

Adeε a ε fe! Clean kyerε se n?

“When we say something is clean, what do we mean?”

Children: **Adeε ε fe!**

(Something that is nice)

Teacher : **Something that is neat. Aha: Neat kyerε se ε ha, da biara me kakyerε wo se, wo to paper egu kurom ha a, ε ha be ye dirty-filthy, ε nyε clean. Clean ye adeε a ayε de n? ε fe What does neat mean?**

(I have always told you not to litter around because that will make the environment filthy, it will not be clean. What does neat mean?)

Children: **ε fe**

(something nice)

Teacher: **Se moate? Aha! enti seisei ε deε n nnooma na ye be tumi a u-se, ε deε n nnoma na ye betumi a use ade a hwe ye nenvironment –ama no ayε clean? Nnoma be n? What are the things? Things a ye be tumi a use ama ye n environment no ayε clean? Yes, Omama!**

(Is that ok? So what are the things we should do to ensure that the environment is clean, Yes Omama?)

Omama: **Ye pra.**

(We sweep)

Teacher: **Ye pra ha. Mo mmε mo nsam mma no (they clap). Pra ε wε brε fom no ye ka no se n?**

(That is right. Clap for him. How will you say that in English?)

- Children: Sweep
- Teacher: Sweep, good. Shout for yourselves (they clap) **Mmo! mo ahu? Ye pra ha. Na ye asan eyε deε n?** (children give chorus answers)**Ka no maako mmako. Da biara meka kyerε wo sε , wo nim a, pagya won san na moafre wo Yess, Jocelyn!**
(Good! Give yourselves a round of applause. You see? We sweep and what else? Say it one after the other. I have always been telling you not to talk until you raise your hand and I call you; yes, Jocelyn!)
- Jocelyn: **Ye popa ha?**
(We also dust)
- Teacher: **Ye popa ha nso. Yes, Rita?**
(Apart from dusting, what else do we do, Rita?)
- Rita: **Ye dɔ.**
(We also weed)
- Teacher: **Ye dɔ. Adɔ nso ne borɔfo, ye ka no sε n?**
(How will you say that in English?)
- Children: **Ye piiki so**
(Picking)
- Teacher: **Ye ‘piiki’ so. Mmo, moahu? ɔse, either sε , we weed. Weed kyerε sε ye reyε de n?**
(Picking, you see? He says we either weed or pick. In fact, what does pick mean?)
- Children: **Ye dɔ**
(Weed means yεdɔ in Twi)
- Children: **Ye weed, ye ε ‘piki’so; ye redɔ.**
“We weed and pick”
- Teacher: **Ye dɔ, Adɔ na ye fre no sε n? weed. Ah sε wo redɔ a, you are weeding. Wo resan akɔ piiki a, Aha, Rita wode bi reka ho?**
(Adɔ is weeding in English and we can also add picking. Rita, do have something to add?)
- Rita: Wheel barrow.
- Teacher: **Mmo wheel barrow. Ye de wheel barrow ε ye deε n?**
(Good! What do we use wheel barrow for?)

- Children: **Yε de sesa wura.**
(*We use it to pick rubbish*)
- Teacher: **Mmo.... Aha. Saa nnoɔma wei, yε reba abε sua. Enti wo a ()**
(*We sweep the compound.*)
(*Good, we are going to learn about these things so () we sweep the compound*)
Sweeping (silence) we sweep the compound **εna yε san yε de n? Yε dɔ. Dɔ nso yε frε no sε n?** weeding Eh? Weedingweeding.....yes, who can spell this for me? **Hwan na ɔβε tumi a spε ε li adeε wei nyinaa akɔsi?** Aha, Daniel.....
ka no den! Ka no denama bε nte. (the child spells the word)
Good!
(*Apart from sweeping, we weed. Who can spell all these activities? Aha, Daniel, say it aloud. Good.*)
Clap for him (children clap) () **ε yε hye?**
(*Is it hot?*)
- Children: **Aane**
(*Yes*)
- Teacher: **Ayε hye**
(*It is hot*)
- Children: **Aane**
(*Yes*)
- Teacher: **Montɔ nko mma no!** (Children clap) Daniel, **kyea me wo ayε adeε .** Good –very good boy. **εna sweep, yε ka sε sweep.** Sweep nsoso, **hwan na ɔβε tumi a ‘demonstreti’?** **Hwan na ɔβε tumi ayε sε nea yε si sweepi? Yε si sweep yε dan mu anaase abɔnten?** () Now **ε deε n na yε de ε yε sweeping? ε deε n na yε de yε de yε sweeping? Nnoɔma bε n na yε de yε sweeping?**
Yes () prayε , Ahaa,. Prayε . εno na borɔfom yε ka no sε n?
(*Clap for him! Daniel, give me a hand shake, you have done well. Who can demonstrate how we sweep? I mean how we sweep our rooms or the compound? () what do we use to sweep? What are the things that we use for sweeping? Yes, () broom. What is its name in English?*)

Children: Broom

Teacher: Broom. **Ahaa. Sɛ seisei mo ahu kwan a yɛ bɛ fa so asie sie yɛ n mpɔtamuaama n'ayɛ neat.** Ahaa. **Yɛ se yɛ bɛ dɔ; ɛ yɛ 'weeding'. Yɛ bɛ pra,....Aha mmo. Na yɛ sasan ayiyi cobwebs- ntentan. Yɛ bɛ yiyi ntentan no nyinaa afiri hɔ. Eh? Ntentan no yɛ frɛ no cobwebs.**

(Now you all know how we can keep our environment clean- we must weed, sweep and remove cobwebs)

Children: Cobwebs

Teacher: **Mmo. Ahaa! Yɛ bɛ yiyi no nyinaa ama ayɛ neat-kama moahu? Entinnoɔma a yɛ de bɛ kora yɛ n mpɔtam ha no, baako yɛ broom. Yes hwannso no ɔbɛ tumi aka baako aka ho? Me pɛ se**

(So we have to tidy up the environment. Broom is one of the things we use to tidy up the environment. Can anyone of you add one?)

Children: long broom

Teacher: Long broom. **Ɔse sɛ n?**

(What did he say?)

Children: Long broom.

Teacher: **Long broom nso yɛ nneɛ he? Baako ne bi, aha Methusela ka kyerɛ ɛ yɛ n sɛ yɛ bɛ tumi ausɛdeɛ n?**

(What is a long broom? This is one. What did Methusela say we can use?)

Children: *Long broom*

Teacher: **Aha? Yɛ bɛ tumi a use long broom asan de a pra pra. Hwan na woahu long broom da? Who has seen long broom () ɛ hefa na woahu bi da?**

(Aha, we can use long brooms to sweep. Who has ever seen one? () Where did you see a long broom?)

Children: **Ɛwɔ yɛ n fie hɔ.**

(In our house.)

Teacher: **Mo fie hɔ woahu? ɛ hefoɔ na ɛ taa use long broom?**

(In your house eh? Who normally use long broom?)

Children: Zoom lion

Teacher: **Mmo, mommɔmonsam mma no. Na ɛkyerɛ sɛ ɔno woahu bi da. Aha zoom lionfoɔ no na ɔtaa use long broom de desilti prapra gutter ɛ san de pra abɔnten. Wei nom nyinaa yɛ yɛ n environment ɛ na deɛ n bio? Yaabɔ broom no asɛ m. Yɛ asana bɔ long broom yes, deɛ n nnoɔma na yɛ de siesie yɛ n mpɔtamu? Aha, Richard? Aha – Rakia.**

(Good! Clap for him. It means you have ever seen one before. Zoom Lion workers normally use long brooms to de-silt drains and to sweep. All these are part of the environment and what else? We have mentioned broom and long broom already. What other equipment do we use for cleaning, Richard, Aha Rakia?)

Richard: Wheel barrow

Teacher: **Wheel barrow. Mmo clap for him (children clap). Sɛ moahu? Wheelbarrow yɛ de yɛ de n?**

(What do we use wheel barrow for? Good, clap for him. You see, ; what do we use wheel barrow for?)

Children: **Yɛ de sesa nnoɔma**

(We use it to carry things)

Teacher: **Ɛdeɛ n nnoɔma na yɛ de sesa?**

(what things do we use a wheel barrow to pick?)

Children: **Bɔɔla.**

(Rubbish)

Teacher: **Bɔɔla, anaa rubbish, aha rubbish.... ɛ te sɛ papers ayɛ kɔ piki a na yɛ de agumu. Aha yɛ pra boa ano a, na yɛ de agu mu. W'ahu aha wheel barrow nsoyɛ adeɛ baako a yɛ bɛ use. Sɛ ɛ yɛ nodemonstration. Enti, wheel barrow nso yɛ baako. Sɛ moahu?**

(Rubbish pieces of paper we went to pick. After sweeping, we then we put the rubbish inside the container. Wheel barrow is one of the things used. I hope you get it)

Children: Yes, madam. (Achild asks if mop is one)..... (Some make noise)

- Teacher: **Ɔse, mop- ε ε n, σε ye nya nwieε . Nnoεma a ye de popa fe m ka ho.** (writes – teacher writes on the board ; some pupils make noise) **Aha!.... number five nso ye deε n?**
(He mentioned mop. We have not finished yet. We have some of the things used to clean our floor. Item number five is what?)
- Children: **Mop**
- Teacher: **Mop..... mo ayε adeε , mo nkyeki mma** Richard, Ah! Richard, **woayε adeε mon charge mma no. () ε ye hye?**
(*Good, you have all done well! Ah, Richard, well done! Is it hot?*)
- Children: **Aane**
(Yes)
- Teacher: **εye hye**
- Children: **Anane**
(Yes)
- Teacher: Then **mo-mfa mbom mma no** (children clap) **Mmo Richard w’ayε adeε mon charge mma no () ε ye hye?**
(*Then let’s clap for Richard, he has done well. Is it hot?*)
- Children: **Aane**
(Yes)
- Teacher: **εye hye**
(Is it hot?)
- Children: **Anane**
(Yes)
- Teacher: Then **mo-mfa mbom mma no () Mmo Richard w’ayε adeε.** Very good boy eh? **Aha, enti saa nnoεma wei na ye frε no σε things we use to clean our environment.** Things we use to clean our environment. **εye nnoεma a ye de prapra ye n mpɔtam- ye n environment. Σε moate aseε?** Do you understand?
(*Then let’s clap for Richard, he has done well. Aha, so these are the things we use to clean our environment. Do you get it?*)
- Children: **Yes madam**
- Teacher: **Mop. Mop hwan na woahu mop pε n?** (A child provides an answer) **Ye de gu nsuom w’ahu? () Mmoεye. Mo nyinaa**

momim..... mo ayε adeε ! Enti saa nnoεma yin a yε frε no
things. All of you! (3x)

(Mop, who has ever seen mop? (A child provides an answer) We put it in water. (.) good, you have all done well; you all know mop.. well done! So these are the things we use to clean our environment". All of you say it!)

Children: things (3x)

Teacher: We use

Children: We use things

Teacher: We use

Children: we use

Teacher: To clean our environment

Children: Our environment

Teacher: **Ahea! Enti,** they are things that we use to clean our environment.

(Yes, they are the equipment we use to clean the environment)

Enti sε mebisa wo sε, give me one thing that we use to clean our environment **a ε deε n na wobε bε? Sε mese bε adeε baako din a yε use ε de klini yε n environment: bε adeε baako din(.)**yes Kingsley **bε adeε baako a yε de popa- yε de prapra yε n environment.**

(So if you are asked to mention one tool used to clean the environment what will you say? Name one (.) yes Kingsley, name one tool used to clean the environment.)

Kingsley: Mop

Teacher: **Mop, sε moate? Woama yε n one thing woama yε n deε n?**

(Mop, do you get it? He has mentioned one. He has named what?)

Children: one thing (.)

Teacher: Yes aha, Luis?

Luis: wheel barrow

Teacher: Wheel barrow. **Sε mo ahu? Wheel barrow nso yε deε n? baako. Kelvin tena aseε Eh?**

(You see, wheel barrow is one of them. Kelvin, sit down.)

Kelvin: **prayε**

(Broom)

Teacher: **Prayε . Prayε yε English? How do we call prayε?**

(I want that in English)

Children: Broom

Teacher: **Broom wei ε na ye frε no deε n?**

(what type of Broom is this?)

Children: Broom

Teacher: **Enti wei ye twitwa so a, na ye de dua tenten ε de ahyε mu; na yafre no de n?**

(So if we cut it short and attach a stick to it, what should we call it?)

Children: Long broom (children make noise)

Teacher: **Sε moahu?**

(You see)

Children: Yes madam (children call the teacher)

Rita: **Madam, Madam bɔɔdoa** (the other children yell)

(Madam, towel)

Teacher: **Rita, bɔɔdoa is not among of the meaning itself.... Aha? Tie, ontie; ε nodeε ε nka nnoɔma no a, ye de popa ye n mpotam. Sε bɔɔdoa a atete deε wobε tumi de apopa wo dan mu. Na bɔɔdoa a ye de popa ye n ho deε ye n use ε no. sε mo ate?**

(Towel is not one of them. Listen, it is not one of the tools we use to clean the environment. If it is old, we can use it to mop our room but we don't use our personal towels to clean the environment. Is that ok?)

Enti next time ε no nka ho. Enti saa nnoɔma nan wei nayε de ye deε n? Popa ye n mpotam. Bebreε wɔ hɔ oo. Enti ye resan abε kan (children begin to call her).

(So next time don't mention towel as a tool used to clean our environment)

Sε me nya bisaa wo question.

(But I have not asked my question yet.)

Enti nnoɔma bε nna ye bε tumi a use ε wɔ ye fie anaa ε wɔ sukuu ha?

(So what tools can we use to clean our school or our homes?)

(Children raise their hands and call the teacher) **Ei, me nwieε.**

Mo ngyae na me mbisa question nwieε. Ye se things we use to clean our schools, our homes, our schools. (Children call teachers) Yes?

(Let me finish with my question. I mean tools we use to clean the environment.)

Children: Rags

Teacher: **Rags, mo mmo monsam mma no. Ye fie ye use deen?**

(Good, clap for him! What do we use at home?)

Children: Rags

Teacher: **Ena deen bio?**

(What else?)

Children: Rubber

Teacher: **Rubber saa rubber no, ye fre no dustbin.**

(That plastic is called dustbin)

Children: dustbin

Teacher: All of you

Children: Dustbin

Teacher: Dustbin

Children: Dustbin

Teacher: **Ahaa. Saa dustbin no eno esi ho, wo pra wura e wie a, after sweeping, you gather the rubbish and you go and put it inside the dustbin Eh.**

(The dustbin is always at one place so, after sweeping, you put the rubbish in it.)

Children: Yes madam

Teacher: **Aha, wo wie na w'asesa wo rubbish no akogu dustbin no mu, aha?**

(After sweeping, you put the rubbish into the dustbin. Is that ok?)

Children: Yes madam

Teacher: **Ahaa brush ye baako (.2) dustbin nso ye one of the things. Enti things we use at home nso nie** (she lists them on the board)
Aha?

(Some of the tools at home include, brush and dustbin, Ok?)

Children: Yes

Teacher: **Me e nnooma a ye use e wo fie.**

(I mean thing we use at home)

(Shouts at pupils) Mo nnyae na montie.

(Keep quiet and listen)

Nnooma a ye use ewo fie no aha, e no ne wei baako ye brush e nna baakonso ye dee? Dustbin. Enna baako nso ye dee n? mop bucket.

(Tools we use at home include brush, dustbin and mop bucket)

All of you..

Children: Mop bucket

Teacher: Again

Children: Mop bucket

Teacher: **Hmm. Saa nnooma yi, ye use ewo hen? Fie. Anaa sukuu mu. Se moate?**

(We use these tools either at home or in the school. Is that ok?)

Children: Yes madam

Teacher: **Edee n bio Richard?**

(What else, Richard?)

Richard: **Nnea ye de popa dwam no.**

(Tools we use to keep our market place clean)

Teacher: **Nnea ye de popa dwam no ebi ne nea ewo hen?**

(What are some of these tools?)

Children: Mop

Teacher: **Se ye atwerε mop. Mop wɔhɔ; dustbin nso wɔhɔ. Rag -nsaago. Eno ye rag; e nna bowl, bowl aha, bowl aha, bowl. Mo ntena ase**

(We have written mop, dustbin, rag and bowl. Do you get it?)

(A child calls teacher) **yes (.) seisei y'asua nnooma a, ye de popa ye n fie, e nnannooma a, ye use e de popa abɔten e ne school eh? Aha! enti y'asua different types woahu?**

(We have so far learnt things we use to clean our homes, our school and the compound. We have learnt different types of tools. Is that not so?)

Aha, environment dea e no nie. Ye se ye be tumi ause..ye be piki (some visitor distracts teacher) Ye be use saa sweeping e de aye rhyme enti se wokɔ fie a, na obi bisa wo se nnooma be n na ye use ewo abɔnten a, dee n na wobε ka.

(Aha, for the environment, we can clean it by picking, (Distraction) and sweeping. We can even make rhyme with sweeping. So if you go home and you are asked to mention some tools used to clean the environment, what are the things you will mention?)

Children: **prayε**

(Broom)

Teacher: **Prayε ε nna deε n?**

Children: Wheel barrow

Teacher: Wheel barrow *εnna deε n?*

(What else?)

Children: Mop

Teacher: Mop

Children: Madam, **nea wɔn de popa fɔm.**

(What about the tools we use to clean the floor?)

APPENDIX B

Topic: Electricity

Duration 26:25Mins

- Teacher: Before we proceed, our last topic was basic electronics. Is that ok? Our last topic was basic electronics. Are you getting it? And basic electronics we mentioned or we said that these are things.....they are the small- small gadgets that use battery. Is that ok? Without battery, these things cannot what? Function.
- Children: Function
- Teacher: Eh?
- Children: Function
- Teacher: Can you mention small- small gadgets that use battery, Philip?
- Philip: Motor battery
- Teacher: Yes motor or toy motor. Aha come again
- Children: Toys car
- Teacher: Toys car aha? Toys car, Owusuaa?
- Owusuaa: Toys toys
- Teacher: Also let me add this. You can use *torch light* but you know *torch light*?
- Children: Yes
- Teacher: They also use battery and battery, we say they have two ends right? We have the positive and the //
- Children: //Negative
- Teacher: We have the positive and the//
- Children: Negative
- Teacher: Yes, we have the positive and the negative, and if these ends meet, they produce what? They produce what?
- Children: Energy
- Teacher: They produce energy but if the negative and the negative meet, they cannot what?
- Children: Function
- Teacher: Is it ok?
- Children: Yes

Teacher: If the negative and the negative meet, they cannot function but if the positive and the positive meet they can produce...

Children: Function

Teacher: If the positive and the positive meet they cannot also function but if the positive and negative meet, they can what? Function (children reiterate) that was what we learnt last week. Now on the board, we have electricity, right?

Children: Yes

Teacher: We have electricity and electricity we say, is a reserved sunlight 'bet' you remember sunlight? Sunlight we said was a form of energy. Electricity is also a form of energy. When you see electricity, 'bet' you know what electricity is? Things that we use them at home. You know them? At home alone. No you remember them? Aha! Electricity is a form of energy (.2) is that ok? We have some things that uses electricity at home. Aha, Henry, can you mention one? Aha?

Henry: Radio

Teacher: Radio, thank you. Examples are//

Children: //Radio

Teacher: **Meka** things that uses electricity **yε kɔ fie a nnoɔma ε use deε n light ε wɔ fie hɔ. wate aseε? Wo deε wo fie. Wo fie ankasa wo dan mu hɔ nnoɔma a, ε use light** they are called electrical appliance.

(If I talk about things that use electricity, they are appliance in your homes and even in your room that depend on electric power to function).

When we say appliances, they are things that uses electricity. **Nnoɔma a, ε use light ε wɔ fie woate aseε? Nnoɔma a wo plɔgu (plug) ε bε ma wo light aha? Wo plɔgu a (plug)ε bε gyina light so ama no ayε deε n? Ayε adwuma.** Without light, these things cannot what?

(When I talk about things that use electricity, I mean appliances at our homes that depend on electricity to function. These things are called electrical appliances. They are things that give light when they are plugged to electric socket. Without electricity these things cannot function.)

Children: Function

Teacher: Without light these things cannot function. **Annya light a ε ntumi nnyε light a ε ntumi nnyε adwuma. Moate aseε? anyna light a,**

ε ntumi nnya δε n? ε ntumi nnyε adwuma eh? So mention if you can mention them. Yes Twumasi, we have what?

(Without power these things cannot function. what are some of them, Twumasi?)

Twumasi: Television

Teacher: Television, example 1. We have television. The common name is TV () you all know TV?

Children: Yes

Teacher: **Aha, δεε n bio?**

(What else?)

Children: Bulb

Teacher: Aha, Philip?

Philip: Bulb

Teacher: We can say (.) bulb electrical bulb. Is that ok? (He writes on the board) electrical//

Children: //Bulb

Teacher: Electrical bulb aha saa. Fridge refrigerator is it ok? **Aha ε δεε n bio, Aha?**

(Aha, you are right. What else?)

Children: Washing machine

Teacher: Washing machine, **enti nnoεma yi nyinaa use δεε n light ε wε fie. Σε annya light a ε ntumi nnyε δεε n? Σε annya light a, wei entumi nnyε adwuma. Mo ate aseε?** Put your hands down. It is ok. **Enti weinom nyinaa bεm.** They come together and we call them electrical appliances electrical what?

(All these things use power and without power, they cannot function. Do you get it? So all these are called electrical appliances)

Children: Appliances

Teacher; Is it ok? These things use electricity. Right?

Children: Yes

Teacher: And using of electricity, we can also mention (.2) **fie no a, yε wε mu no ankasa; yε wε fie hε woahu? Nnoεma bi wε hε a, ayεσε ε soso wo dan no wε hε. Dan wε hε Ah? Wo dan wε hε wo maame,** things are there that are big in size. They use higher amount of what? Electricity.

(There are certain gadgets in our homes that consume higher amount of electricity)

Can you mention them? Aha, can you mention? Aha()Akosua!

Akosua: Fan

Teacher: Fan. Fan is not big aha?...aha

Children: Show case

Teacher: **Nnea meka... tie tie nnea me rekyere ne se, nnooma no wo dan mu ho.** we can talk of television. **Woahu se** television so? **ε** use light **ε kyen nnooma aasusua no.....w'ahu se nnooma akeseake se a ε use (.) eno ne** voltage **no** so Aha? **ε twe light dodo kyen nnooma ketewa no. Aha ε deen n, Lois, Lovia, Ah?**

(I am talking listen; appliances like the televisions have high voltage so they consume more energy than the small appliances. Aha Lovia, mention one of such appliances.)

Lovia: Fridge

Teacher: Fridge yee: we can talk of refrigerator.... refrigerator (A child tries to spell refrigerator) is ok. Ah, we can also talk of television. **Woahu? Saa nnooma wei nyinaa ye deen n?.....** (A child provides an example)

(Yes, we can talk of television and refrigerator, all these appliances have high..)

Children: Computer

Teacher: Computer! Aha, Imman, You say what?

Imman: System unit

Teacher: System unit is part of a computer. They are all what? It is ok. Now you see, when using electricity.... **se ye use electricity no a, ye use light a, nnooma wei nom,..... ε ye a, light** per se is very, very dangerous. Do you know that?

(System unit is part of a computer. Now listen, when using your appliances, you must bear in mind that electricity is very dangerous. Are you aware of that?)

Children: Yes.

Teacher: Light per se is very very dangerous. **Enti ye rebe sua ahweye ε se se ye ye mmre a ye ε use light no.** Safety while using electricity. Is that ok? Safety while using electricity, things that we must be care of ah? Is it ok? **Ahweye a ε se se ye hwe se nea ye nkɔ ye na ye n mmre ye deen? Na ye ye se nea ε be ye a, ye use light a,** we will not hurt **ye mpira anaase ye nwu.** One, **ye see,** do not touch the electrical appliances, and these are what? Appliances which we use. **Mme mfa**

wosa nka adeε no a, wo use no. Woate aseε? Adeε no a, wou sεno mmε mfa wonsa nka. Example, iron- w’ahu sε iron ho yε hye,

(Electricity is very dangerous, so we are going to learn safety measure we must adopt while using electricity in order not to hurt ourselves. First you must not touch an appliance that is in use. For example, electric iron is hot so don’t touch it when it is in use)

Children: Aaane

Teacher: **Enti sε woε use iron, na sε wode wonsa ka ne to a, you are going to be hurt. ε bε hye wo..... wobε su sε woate aseε? Is it ok? So safety while using electricity. (Teacher writes on the board and after that shouts the motor of the school to which the children respond) let’s go on. When you touch these things while using them, it is going to hurt you. wobε pira wo, eh? Enti sε wo use a, mmε nyε deε n? mmε nfa wonsa nka. Woate aseε? Sε wo use, electricity a, mmε nyε deε n? Mmε nfa wonsa nka- adeε no a wo use no. And again mese do not touch the torn//**

(so when you are using electric iron and you touch it, you will get burns and you will cry. When you touch electrical appliances when they are in use, you will hurt yourself, so don’t touch them at all when they are being used. Again don’t touch bare wires//)

Children: //wires

Teacher: Do not touch the torn wires. You know electricity passes through that line. That wire is that ok? And do not touch the electrical wires when they are what? Torn. And two, we say (he writes on the board) do not .(Children speak and he scolds them) quiet. **Woate aseε? Yε se wire no a atete no mε mfa wonsa nsom, εnnyε saa na wode wonsa sε mu naε hyoko (shock) wo a, you are going to die//**

(Do you get it? I say do not touch torn wires or else you will be electrocuted and if that happens, you will die//)

Children: //die

Teacher: Ah? So do not touch the torn

Children: Wires

Teacher: Is it ok aha? Again,(.)(A child interrupt) louder, louder aha? Thank you. The wires that you are dealing with, the wires that you are dealing with, if you touch them, don’t plug them when you are bare footed when you are what?

Children: Bare footed

Teacher: **Saa light ahoma no a, wo use no, ankasa.** This is the socket. This is the socket right? Don't plug the electrical appliances when you are bare footed.

Woate aseε ?

(Don't touch electric cable or plug any gadget when you are bare footed. Do you get it?)

Sε wonhyε mpaboa a, mε nfa,enkɔfa ahomammε hyε socket no mu.

(If you are bare footed don't plug any cable into an electric socket)

Is that ok? Don't go there at all. If you go there//

Children: //You will die.

Teacher: It is ok? So don't do that. So **enti nnoɔma a, yε bobɔ no nyinaa yε nnoɔma a mmrε a yε use light no ε sε sε yε hwε. Ahwε yie a ε sε yε hwε a, sε ε bε yε ayε mpira. Aha?**

(So all the things we have mentioned are the things we should use cautiously in order not to harm ourselves.)

Safety while using electricity. **Ɔse**, do not plug do not plug (He writes)do not plug the electrical gadgets with bare foot.Bare footed. Is it ok.

(That you should plug electrical gadgets when you are bare footed)

Ɔse while using the electricity, do not plug the electrical gadget with bare footed. *(That you should plug electrical gadgets when you are bare footed).*

Mε nkɔ hɔ ah; mmrε a wonhyε mpaboa na wo kɔhɔ a, you are going to be hurt is that ok () **moate easeε ?**

(If you touch electrical gadget when you are bare footed you will hurt yourself. Is that ok?)

Enti mε nkɔ hɔmmrε a wonhyε mpaboa.

(So don't use electricity when you are bare foot)

Is that ok? Is it understood is it understood?

Children: Yes (teacher sings a slogan and children respond).

Teacher: Ah, let's go on and again what I will say is that as you are too young like this, don't plug the electrical gadgets yourselves. It is going to kill

you Ah? At this age you cannot plug the electrical gadgets yourself. Don't go there. You can go and call an elderly person to help you **moate aseε** ? Either your brother, your sister.

(If you want to use electricity call an elderly person to help you, is that ok? It could be either your sister or your brother)

They are all elderly people. If only the person is older than you. That is, when you know that he can do it. Ah, is it ok? Do you understand?

Woyε akɔdaa ()nnea mepε akyerε ne sε mε nkɔ hɔ, mfa wonsa nkɔ yε dε n, nkɔka. Mε mplɔgu (plug) sε woampɔgu a, wobε wu anaa? .

(You are young so don't tamper with electrical gadgets. Will you lose something if you stay away from electricity?)

Children: Daabi

(No)

Teacher: **Wobε wu anaa?**

(Will you lose anything if you don't touch an electrical gadget?)

Children: Daabi

(No)

Teacher: **Mo, Moate aseε ?Enti mε mfa wo nsa nkɔ hɔ nkɔka adeε no** if not you are going to die. Is that ok?

(I hope you understand? Don't touch electrical gadgets or else you will die)

Do not plug the electrical gadgets on your own. Is that ok? Do not plug the electrical gadgets on your own. You can call an elderly person to help you. Is that ok? Is that ok? Aha Alhaji? And again that is why we say do not touch the electrical gadgets when they are in use. Alhaji **aye adeε** , lets clap for him (children clap) Again (they clap again)

(Let's clap for Alhaji; he has done well)

Children: You are the best!

Teacher: **Ehe; ɔse sε wo maame plɔgu (plug) nsuo na wode wonsa kɔto mu a,** when using heater right? **Wode wonsa to mu a,** at once you are going to what?

(If your mother is heating water with electric heater, and you dip your hands into the water, you will die instantly)

Children: Die

Teacher: At once you are going to what? Die. Is that ok?

- Children: Yes
- Teacher: **Enti**, that is why we said do not touch the electrical appliance when they are in use. Is that ok?
(That is why you must not touch appliances which are in use)
- Children: Yes
- Teacher: Do not touch the electrical appliances when they are in use, Aha? **Enti sɛ wo amfa wonsa ankɔ to mu a.... wo amfa wo nsa anto mu a, wobɛ wu? Wobɛ wu?**
(So if you stay away from electricity will you lose anything?)
- Children: No
- Teacher: **Yɛɛ ‘hiiti’** (heat) **nsuo na wode wonsa kɔ to mu a**, you are going to die. **Enti** while using the electrical appliances, don't touch it.
(If you are heating water with electric heater and you dip your hands in you will die)
Don't go there. And again, we have aha? (Child speaks)
- Children: When your mother is using a washing machine, don't go there.
- Teacher: When your mother is using a washing machine, don't go there, because going too you are too small aha? Is it ok Iman? (silence) is ok. Is ok. Let's continue. So we started from electricity and we said.... what did we say electricity is (children define it) (Sic)
- Children: Electricity is a form of energy
- Teacher: Again
- Children: Electricity is a form of energy
- Teacher: And we mentioned some examples of what? Electricity. Is that ok? We mentioned some example of electricity aha. Let's go on, what are the examples?.... Philip
- Philip: Bulb
- Teacher: Electricity bulb. It uses what? Electricity is it ok? Aha? Faustina
- Faustina: Washing machine
- Teacher: Washing machine. Is it ok? Without electricity these things cannot what?
- Children: Function
- Teacher: Without electricity, all these things that we are mentioning cannot what
- Children: Function
- Teacher: Ah?

- Children: Computer
Computer right? Yee it also uses electricity. Yes Benjamin
- Benjamin: Refrigerator
- Teacher: Refrigerator. We also call it fridge. Yes Owusuaa? () aha? Air condition aha?
- Children: Air fresher
- Teacher: No, air fresher is different from air condition right? Air fresher is the small –small. They are very very () they have a very nice scent **ε yε a...** (children interrupt) **ε yε a yε debɔ dan mu sε nea abε yε a, yε home bε yε hwam.**
(Air fresher is different from air conditioner. It is smaller and we use it in our rooms to freshen the room)
That is what? Air fresher but we are talking about air condition. Air condition no, () air condition **no yε de bɔ dan mu sε bε yε a, mframa a ε bano**, it will cool what?
(We put air conditioner in our rooms to cool the air).
The air in the room **enti sε wofri baabi awobε hu sε mframa no yε nyunu nyunu nyunu, woahu? Enti sε ε hɔ no sε woyε kuraseni wowuraa hɔ no aa** (demonstrate the posture of someone who feels cold) **wohau? Enti akuraseni biara nni hɔ a woahu air condition da.**
(Air conditioner cools the air in the room, so if you are a villager, as soon as you enter into a room that has an air conditioner, you will feel cold)
That was just by the way. If you go to MTN office for example they have some there. If you go to the banks –Commercial Bank, Teachers’ Credit Union and the rest we have air condition there.
- Children: Hospital
- Teacher: So when you enter (.) who have some in their houses? (A child raises the hand) Air condition **sε ε duru anyummerε na wosɔ a ,wobε hu sε dan mu hɔ ayε nyunyun. Woahu?**
(If you switch on the air conditioner in the evening, the room becomes extremely cold)
- Children: Fan
- Teacher: It is different from fan **ε nyε fan a wo prε see (press) yaa na ε tware neho.**

(Air conditioners are different from fans. As for a fan as soon as you press a button, it rotates)

No, air condition is different from fan aha? (Children make noise and teacher sings their slogan- 'should we') look at Sandra, she is sitting there...

Children: Shuu

Teacher: She will not talk. She will not talk while we are learning

Children: She likes playing

Teacher: Now, **yε ntoa so.**

(Let's go on')

Let's continue so what we learn here today is that" safety when using electrical

Children; Appliance

Teacher: Safety while using electrical appliances. So when you are using electrical appliance you must be very careful of them. Is that ok? Is it understood?

Children: Yes

Teacher: Ah?

Children: Yes ()

Teacher: Let's go on so you must be very careful while using electrical appliances or electrical gadgets. Aha? And again, never and ever plug the electrical appliances when your hands are what?

Children: wet

Teacher: Is that ok? (Teacher writes on the board) now let's continue. Never touch the electrical appliances when your hands are what?

Children; Wet

Teacher: When your hands are wet. **Yε ka sε** your hands are wet a, **sε nsuo wɔ wo nsa a, aha?**

Mε mfa nkɔ light no ho. (

When we say your hands are wet, we mean there is water on your hands so, don't go near electricity.)

Even I have told you that don't put the gadgets off. **Sε wobε kɔ hɔ koraa a, sε nsuo wo wonsa a, mme nyε dε n? mε mfa nkɔ plɔgu (plug) adeε no,** is that ok?, is that ok?

(If you are about to plug a gadget and you realize your hands are wet, you must stop immediately)

Don't go there when your hands are wet. **Sɛ nsuo wɔ wonsa, na woko gyina hɔ a**, you are going to die. **Wode wonsa kae aa....** is it ok?

(If your hands are wet and you touch electric gadget, you will die as soon as you touch it)

And again, don't stand in water and plug the electrical appliances **ah, sɛ nsuo wɔ fɔm hɔ nso a**, don't stand in it, aha, if not you are also going to die, right Ah? Again don't stand in water when using electricity.

(If there is water on the floor, don't stand in it.)

So this is about electricity. Electricity is a form of energy that helps us in doing so many things. For example, without electricity, can you iron your shirt?

Children: No

Teacher: **Gyese wokɔsɔ gya gu box iron mu ansa na woato w'taadeɛ .**

(You have to put fire in box iron before you can iron your things)

Do you know box iron?

Children: Yes. They put fire in

Teacher: Now we are in the modern system ah? **Enti** electricity is helping in so many ways.

(So electricity helps us in diverse ways.)

With the help of electricity, we can have chilled water or cold water to drink. That is what people call it ice-water. There is no ice water. **Yɛ ka ice na ɛ kyere sɛ** block..... block ah

(When we say ice water, we mean water that has been solidified like block?)

Block nebrɔfo **ne** ice, **woate aseɛ . Enti woka** ice water a, it is wrong. Don't say that **manka no** ice water **bɛ ka no** cold water **ah? Nti sɛ ɛ nyɛ** light a **anka yɛ nya wei, nsuo nynun ɛ nyɛ deɛ n? ɛ nnon** but by the help of electricity, we have a refrigerator and refrigerator helps us..... refrigerator can help us (.) refrigerator can help us to get chilled water. Is it ok? Is it understood? Aha! We also have things that we see on television. **wosɔ TV no aa, wobɛ hu sɛ (.) aah**, for example, we have "For kids".

(As soon as you switch on your television, you see programmes like 'For Kid')

Children: Yee. “for kids TV, Adom sports, Obinim TV.

Teacher: **Woahu?** All these things (.) is ok, is ok.

(Have you seen all these things? It is ok.)

That is the help of electricity. **Nka εnyε** electricity **a, na anka ye nnya saa nnoɔma wei nyinaa nhwε . Moate asee, Aha?**

(Had it not been for electricity, we would not have all these things. Is that ok?)

Once they are used. Is it ok? And again do not touch the torn wires

Children: wires

Teacher: **Sε** wire **no ate na wode wonsa kɔ sɔ mua**, you are going to die **woahu**, so do not touch the torn wire,Ah.

(If you touch bare wire, you will die)

Never plug the electrical gadgets when your hands are also what?

Children: Wet

Teacher: When your hands are wet, don't plug the electrical gadgets. Is it ok?

Children: Yes

Teacher: So we also have

APPENDIX C: Mathematics – Arrangement of numbers

Duration: 17:21mins

- Teacher: Arrangement of numbers from the smallest to the//
- Children: //big numbers
- Teacher: very good. From the smallest to the//
- Children: Big numbers
- Teacher: Very good (.) Now, when you are going to arrange numbers. If they tell you to arrange it ascending order. You must arrange them from what? The smallest, the least. **Nnea ε yε deε n? Nnea ε sua, nnea ε yε deε n? Nnea//**
- (The least, I mean what? The least.)*
- Children: //Nnea ε sua. Nnea ε yε ketekete kyee ne ke see .
- (The least amongst the items)*
- Teacher: Very good so we start from the smallest one to the biggest one is that right? (.) So, we arrange these numbers from the smallest ,**nneaε yε deε n? Nnea ε yε ketewa koraa wə mu**, before we go to what? The big//.
- (We can arrange numbers from the smallest to the biggest)*
- Children: //Kε see .
- (The biggest)*
- Teacher: Is that not it?
- Children: Yes sir.
- Teacher: Right (.)right? now everybody should sit up. Sit up and look on the board. Sit up, Michael sit up,very good. Now let's look at this (He draws on the board) what shape is this?
- Children: triangle
- Teacher: what shape is that?
- Children: triangle
- Teacher: what shape is that?
- Children: triangle
- Teacher: This shape is for Peggy this shape is for Wendy eh? And then this shape is for Peggy. Quiet, quiet. Keep quiet and look on the board (.2) put your finger on your lip. Your finger on your lip. Very good and then

this triangle is also for Hannah. This triangle is for who? Now looking at(.)keep quiet. Looking at the triangles on the board, looking at the triangles(.)stop talking over there. Look on the board. Now looking at the triangle the board, are they the same? Are they the same by their size? **ɔmo keseɛ sɛ nea esi teɛ no** are they the same? **ɔmo kɛ seɛ sɛ nea esi teɛ no** are they the same?

(In terms of size, are they the same?)

Children: No

Teacher: Very good so when they tell us(.)keep quiet. When they tell us to arrange it in ascending order, you must write the smallest one first hm? So we are going to begin with the smallest one first. Is that ok?

Children: Yes sir.

Teacher: So looking at the triangles, which one is for Peggy or which one is the smallest one? Which one is the smallest one?

Children: Peggy

Teacher: Very good. That means you will draw that one first because it is the what? Smallest one. Is that ok?

Children: Yes, it is the **aketeket bɔgɛ**. The **akete bɔgɛ eh?**

(Yes, it is indeed the smallest.is that not so?)

so look on the board, look on the board no sit down quiet. So you must draw that one first because it is the smallest. Because it is the (a child interrupt and says big)

Children: Smallest

Teacher: **ɛno na ɛyɛ deɛ n? ɛ sua wɔ mu(.2)** the another one (.)**baako no yɛ deɛ n?** *(That is what? That is the least. One of them is what?)*

Children: **Keseɛ**.

(The biggest)

Teacher: Very good. Is that ok? So who triangle is going to be the first one? (Sic)

Children: Peggy

Teacher: Whose triangle is going to be the first one?

Children: Wendy

Teacher: Very good (He draws on the board) quiet (.)quiet. whose triangle is going to be the second one?

Children: Hannah

- Teacher: Whose triangle is going to be the second one?
- Children: Hannah (one says Peggy) teacher write on the board)
- Teacher: And whose triangle is going to be the last one? (Children give wrong answer and teacher ignores them) and whose triangle is going to be the last one?
- Children: Wendy!
- Teacher: Why is it Peggy?
- Children: Because that is the big one
- Teacher: Because Peggy own is what?
- Children; Big
- Teacher: Because Peggy's own is what?
- Children: Bigger
- Teacher: Because Peggy's own is the biggest. Very good (He write on the board) so Peggy's own is the last one (children make noise) stop that(.) stop that - sshhh. Quiet (.)quiet (.)quiet(.) Hannah sit well. Quiet ok. Now look at these people(.)eh, quiet(.)now look at these people, we have sheriff; we have Rambo and the we have Morrison. We have what? We have Morrison. (A child repeats the last name) Yes. So when we are going to arrange it, we are going to arrange these people in ascending order. That is arrangement from the smallest to the//
- Children: //biggest
- Teacher: From smallest to the//
- Children: //biggest
- Teacher: Very good so looking at these people looking at these people, **hwan na obε di kan?**
- (*Very good, so looking at these people, which one of them will come first?*)
- Children: Sheriff
- Teacher: **Hwan na obε di kan aba?**
- (*Who will come first?*)
- Children: Sheriff
- Teacher: Sheriff is the first person. And the who is going to be the second person?
- Children: Morrison
- Teacher: Who is the second?

- Children: Very good. Morrison is the second person. And then who is going to be the last person?
- Children: Rambo
- Teacher: (.) the last person?
- Children: Rambo
- Teacher: Rambo is going to be the last person. Is that ok? (some noise follows) now give yourselves a big clap (they clap) give yourself a big clap (they clap again) put your finger//
- Children: //on the lips (some noise follows) now
- Teacher: Ok, now, look (.)sit down, sit down. Benedict, sit down. Just look at these numbers. What number is this?
- Children: 2
- Teacher: What number is this?
- Children: 1
- Teacher: What number is this?
- Children: 3 (A child says 3 is the biggest)
- Teacher: Very good (some noise) now eh, Auge (for Augustina) sit down. Two and three which one is the biggest?
- Children: 3
- Teacher: Very good ok err. Sheriff, two and 3, which one is the biggest?
(*Two and three, which one is bigger; Sherrif?*)
- Sheriff: 3.
- Teacher: Err()Albert, two and three, which one is the biggest?
- Albert: 3
- Teacher: Morrison, which one is the biggest?
- Charles: 3
- Teacher: Mike which one is the biggest?
- Mike: 3
- Teacher: Festus, which one is the biggest?
- Teacher: (There is excessive noise) **sɛ wɔkɔ fi a,**() Put the fingers of your left hand on your lips and then your right hand out.
(*If you get home, () lips and then stretch your right hand*)
Put your finger on your Very good very good. Now Junior, two and three which one is the biggest?

Junior: 3

Teacher: Hannah which one is the biggest

Hannah: 3

Teacher: Very good. Why is the three the biggest? Now, listen, that you are having two oranges (children make noise)

Sit down. If Becky is having two orangesif Becky is having two oranges and Benedict is also having three oranges, who is having more oranges?

Children: Benedict

Teacher: How many oranges are Benedict holding?
(*How many oranges is Benedict holding?*)

Children: 3

Teacher: And how many are Becky holding? (Sic)
(*How many is Becky holding?*)

Children: 2

Teacher: Very good. So three is more than what?

Children: 2

Teacher: Three is more than what?

Children: 2

Teacher: Three is more than what?

Children: 2

Teacher: Three is more than two. Now Clara, if you are having(.) if Clara is having one orange and Emmanuella is holding two oranges, who is having more oranges?

Children: Emmanuella

Teacher: Who is holding more oranges?

Children: Emmanuella.

Teacher: Very good. That means two is more than what?

Children: One

Teacher: Two **ε dɔɔso sen sɛ n?**//
(*Two is greater than which number?*)

Children: //one

Teacher: **εdɔɔso sen sɛ n?**
(*It is greater than what?*)

Children: one

Teacher: Very good. Emmanuella **deɛ no ɛ yɛ deɛ n?**

(Very good, how will you describe what Emmanuella has?)

Children: **ɛ yɛ bebreɛ, ɛ dɔɔso.**

(She has many items; they are plenty)

Teacher: So 2 is larger than what 1. is that ok?

(So, two is greater than one, is that ok?)

Children: Yes sir ()

Teacher: Very good. Ok? Now let's look at these numbers. Which number is this?

Children: 3

Teacher: Give yourselves a big clap (They clap). What is number is this?

Children: 2,1,2.....

Teacher: What number is this?

Children: 1

Teacher: What number is this?

Children: 3

Teacher: Very good. Now we are going to arrange these numbers in ascending order eh! **Yɛ ɛ bɛ hyehyɛ afiri nketewa mu akɔ deɛ n mu?**

(We are going to arrange these numbers from the smallest to..)

Children: **Akɛ sɛɛ mu.**

(The biggest)

Teacher: **Yɛ ɛ bɛ hyehyɛ afiri nketewa mu akɔ deɛ n mu? Akaseɛ mu.**

(We are going to arrange these numbers from the smallest to the biggest)

Very good er.... Bright, now looking at these three numbers, which one is the smallest? Which one is the smallest in 2, 3, and 1? 2,3 and 1, which one is the smallest() aha? Yes, aha, aha! and 3 which one is the smallest?

Teacher: Ahmed?

Ahmed: 1

Teacher: Hannah

Hannah: 1

Teacher: Where is Victor? Samuel?

Samuel: 1

Teacher: James

James: 1

Teacher: Very good one is the smallest. Now let's look this. If you are holding one orange eh, and someone too is holding two oranges eh and someone is holding three oranges eh? Who is holding is holding more oranges?

Children: 3

Teacher: And who is holding the least that is the smallest. **Nnea esua koraa.**
(The least)

Children: 1

Teacher: **Nnea esua koraa yε sε n?**
(The least is what?)

Children: 1

Teacher: **Enti sε obi kuta ankaa baako, na obi kuta ankaa mmienu na obi nso kuta ankaa mmiesaa; hwan deε na esua koraa?**
(One person has only one orange, another has two and the other has three, who has the least number of oranges?)

Children: 1, baako ()
(The person with one orange)

Teacher: 1 () it is ok. Quiet, quiet, sit down. Put your finger on your lips. Put your finger on our lip (.) put your finger on your lips(.) very good. Put your finger on your lips. Very good.
So, someone is holding one orange; another one is holding two oranges and the last one three oranges. **Nnea esua wɔ mu kε se.**
(Which of these is the smallest?)

Children: Baako

Teacher: Is that not it? **Enti no**, if you are arrange these numbers – **sε yε hyehyε numbers wei—sε yε hyehyε numbers, 2,1, 3 Pokuaa nea ε wɔ he na ε sε sε edikan?**
(So Pokuaa, if we are arranging the numbers 1,2,3 which one will come first?)

Pokuaa: Baako
(I will come first)

Teacher: **Nea ε wɔ he na ε sε sε edi kan?**
(Which one should come first?)

Children: Baako
(One)

Teacher: **Woahu? Baako** – 1 number one should be what? First eh? Number one should be the first number because it is the smallest in the numbers. Is that ok?

(One should be first because it is the least. Is that ok?)

ε nona ε yε deε n? Esua ε wɔ numbers no mu.

(It is the least)

Eh? Sit upright. **ε no na ε yε deε n? Esua ε wɔ numbers no mu.**

“It is the least among the numbers”

Yes very good. Now which number is going to be the second one?

Children: 2

Teacher: Very good. **2 na ε toa so;** because **sε woyi one ε firi mu a, 2 na ε yε deε n? ε no nso sua is that** not it? **Sε woyi one efiri mu a, 2 na ε yε deε n, esua ε wɔ mu?** Is that not it?

(After one then 2 follows in terms of magnitude)

Children: Yes.

Teacher: So 2 should be the second. And then which number is going to be the cost one?

Children: 3

Teacher: number

Children: 3

Teacher: Number

Children: 3

Teacher: Number

Children: 3

Teacher: **Efiri sε ε no na ε yε deε n? kε seε wɔ numbers no mu.** Eh? **ε no na ε yε deε n kε seε ε wɔ numbers no mu.**

(Two is the greatest amongst the numbers)

Very good() now let’s look at the correct arrangement of the numbers.

Children: 1, 2, 3

Teacher: **ε no aa nono.**

(That is it)

So the correct arrangement of the numbers is what?

Children: 1, 2, and 3.

Teacher: Very good. That is the correct arrangement of the numbers. So that is the correct arrangement of the numbers. Quiet! The finger on your lips. Your fingers on lips. Ahmed! () Ahmed, stand up. Come and stand here!

APPENDIX D: Environmental Studies

Duration-22:03mins

Teacher: Keep quiet, put everything in your pocket. If I see you playing with anything() I will beat you. Put everything in your pocket. It is ok sit down. Now, who can tell me today's date? Who knows today's date? Maame Kissiwaa, give me today's date, aha?

Children: 26th February, 2015

Teacher: Clap for Kissiwaa (children clap). Everybody; today's date is 26th February, 2015 (Children repeat what the teacher has said).

Teacher: Today, we are coming to learn environmental studies. Say environmental studies.

Children: Environmental Studies.

Teacher: Environmental studies. Diana sit down, environmental studies.

Children: Environmental studies

Teacher: Today our topic is animals. Say animals (children repeat after teacher) but before we go to animals who can tell me the meaning of environment? The meaning of environment aha? Environment, what does it mean?

Sɛ yɛ ka sɛ environment a, ɛ no koraa ne deɛ n? What does it mean?... Environment? Yes Hakim, louder.

(What do we mean when we say environment?)

Child: Things around us.

Teacher: Things around us. Clap for Hakim (children clap). Environment means things around us.....say it.

Children: Things around us.

Teacher: Who can give me the things around us, aha? Agyeman Badu.....

Child: House

Teacher: House.....clap for Agyeman Badu.....Bernice.

Child: Table

Teacher: Clap for Bernice. It's ok, let's come to our topic. Today our topic is animals 2x. say animals.

Children: Animals

Teacher: Again

Children: Animals

Teacher: When we say “animals” in Twi what does it mean? Animals, **sɛ yɛ ka sɛ animals koraa a, ne Twi yɛ adeɛ bɛ n?** Animals, Blessing.....Aha what does it mean? Animals in Twi, what does it mean? Say it louder.

(What is the meaning of animals in Twi)

Child: **Mmoa**

(Animals means mmoa)

Teacher: **Mmoa**, clap for Blessing (children clap), we have so many kinds of animals. Do you get it? We have so many kinds of animals 2x. say kinds of animals.

Children: Kinds of animals.

Teacher: When we say kinds of animals, **Sɛ yɛ ka** kinds of animals **a, na yɛ repɛ akyerɛ mmoa ahodoɔ a ɛ wɔ wiase**. I hope you know them? (Children responded in the affirmative). So who can give me one kind of an animal? Aha... Aha Bright.

(When we say ‘kinds of animals’, we mean the different types of animals in the world)

Child: Goat

Teacher: Goat, clap for Bright (children clap)... Aha Mariama.

Child: Giraffe

Teacher: Giraffe, clap for Mariama (children clap), Bernice

Child: Pig

Teacher: Pig, clap for Bernice (Children clap), who again? ... Hakim.

Child: Cow

Teacher: Cow, clap for Hakim (children clap), Aha who again, Osofo,... give me one kind of animal. Vincent Oppong Asamoah.

Child: Dog

Teacher: Dog, clap for Vincent (children clap), Alhaji...?

Child: A lion.

Teacher: A lion, clap for Alhaji (children clap), (children make noise). Now sit down. You have done well, clap for yourselves. You have done well (children clap). With these kinds of animals, we have them in groups. Do you get it? We have those who live in water, who live in the home and those who live in the bush. Do you get it? Those who live in water...but **mmoa ɔmo yɛ deɛ n? Wɔn nom a ɔte nsuom**.

(Those that live in water)

Do you get it? (Children say yes). Those who live in the house. **Mmoa a ye n ne won nom ye deen? e te fie.**

(Those that live in the house)

Do you get it (Children respond). Those who live in the bush. **Won nom a wɔɔ hen? Won wɔ wuram.**

(Those which live in the wild)

Do you get it? (Children respond), we have those who live in water, **won nom a wɔɔ nsuom;**

(Those which live in water)

Those who live in the house. **won a ye ne wɔnte fie.**

(Those that live with us in the house)

Those who live in the bush. **won a wɔte wuram.**

(Those which live in the wild)

Do you get it? So I want us to know all of them. Do you get it? So if you look at animals that live in water (.....) do you get it? Look on the board.....Animals that live in water, say it.

Children: Animals that live in water.

Teacher: When we say animals that live in water, what does it mean? **Se ye ka se** animals that live in water a, **e kyere se n?**

(What do we mean when we say animals that live in water)

Theophilus: **mmoa a be wɔ nsuom,**

(Animals in water)

Teacher: Clap for Theophilus (children clap), so who can give me example of animals that live in water? **Hwan nawahu aboa a wɔte nsuom da?**

(Who has ever seen an animal that lives in water?)

Aha, so give me example of those animals that live in water. Aha, animals, if you know it sit down and raise your hand, Aha? Lizbeth. (Sic)

Child: Fish

Teacher: Fish, clap for Lizbeth (children clap). Aha, who again? Animals that live in water. Henry!

Child: Crocodile

Teacher: Crocodile. Clap for Henry (children clap). What is the Twi name for crocodile? Crocodile, ne **Twi din de se n? Ye ka se crocodile a ne Twi din de se n?**

(What is the Twi name of crocodile; what do we mean when we say crocodile?)

Children: **De nkye m**

(It is called denkyem)

Teacher: **De nkye m**, clap for Abigail (Children clap). Now what again? Animals that live in water. Agyeman Badu.

Child: Crabs

Teacher: Crabs, clap for Agyeman Badu (they clap). What is the Twi name for Crabs. **Ye ka se crabs a, ne Twi din de se n.** Twi name for crabs...Bright.

(What is the Twi name of crocodile?)

Child: **Kɔɔ**

Teacher: **Kɔɔ**. clap for Bright. I hope you have all seen **kɔɔ** before? **Kɔɔ abrɔfodin de crabs**. Do you get it 2x? What again? Animals that live in water. Aha who again Obaa Yaa.

Child: Shrimp

Teacher: Shrimps. Say shrimps.

Children: Shrimps

Teacher: Who has seen shrimps before? Shrimp, what is the Twi name for shrimp? Obayaa

Child: **Bonsu**

(A whale)

Teacher: No, not **bonsu, not bonsu**. Kissiwaa!

(You are wrong; it is not bonus)

Child: **Mɔnkɔ**

(shrimps is mɔnkɔ in Twi)

Teacher: **Mɔnkɔ**, clap for Kissiwaa (they clap). **Mɔnkɔ**. Do you get it? When you go home ask your mother for **Mɔnkɔ**, she will show you one. Do you get it? **Wokɔ fie a bisa wo maame se mɔnkɔ ye deen aa, ɔde bi bekyere wo.**

(When you go home ask your mother what mɔnkɔ is and she will show you one.)

Do you get it? What again? Animals that live in water, Hakim!

Child: Whale

Teacher: Whale. Clap for Hakim (they clap). Whale when we say whale what...what animal is it? Whale, what is the Twi name for whale? Whale, **ne Twi din de se n**, Bright?

(Bright, give me the Twi name for whale)

Child: **Bonsu**

(It is called bonus)

Teacher: **Bonsu**, clap for Bright (they clap), Hannah be careful! Whale, **bonsu**. Do you get it? **Bonsu no a emenee Yona wo Bible mu no**, the English name for it is whale. Do you get it? 2x. Good,

(It is the animal that swallowed Jona in the bible)

So now animals that live in water, we are saying fish, fish. Fish lives in water. When you bring fish out of water, it will die. Do you get it? **Se woyi fish firi nsuom na wode no ba abonten se emme tena abonten a abe wu. Gyese nsuom.**

(If you bring fish out of water, it will die)

Do you get it? So it lives in water only. And crocodile, crocodile too is **de nkye m. De nkye m** lives in water. **ote nsuom.**

(Crocodiles and crabs live in water.)

Do you get it? Do you get it?() and crabs (). Do you get it? When your mother goes to farm, she can bring you some of the crabs. Do you get it? **Obɛ tumi de kɔtɔ abrɛ wo. ɔyi no wɔ bɔn mu. Bɔn no muno wobɛ hu se nsuo bi wɔ mu. ɔde ne nsa to mu a na wayi deɛ n naɔde abrɛ wo. Kɔtɔ n'abrɔfo din decrab.**

(Crabs live in holes in which there is water so your mother can bring one to you from the farm. Before you can catch it you put your hand in its hole. Crab is Kɔtɔ in Twi)

Do you get it? **Shrimps, mɔnkɔ, mɔnkɔ, mɔnkɔ** you are too small, you cannot see them unless you go home and ask your parents for that. Do you get it?

(Shrimps are also mɔnkɔ)

Mosusua. Mo renhu mɔnkɔ, mɔkɔ fie a bisa wo maame, ebia akɔtɔ adeɛ wɔ dwam mpo a abe nya mɔnkɔ afri mu de abe kyerɛ wo.

(You are too young, so you may not have seen shrimps before, so ask your mothers to get shrimps from the market for you.)

Do you get it?

Children: Yes

Teacher: and Whale, **bonsu, bonus; hwan na wate abakɔsɛ m yi da; sɛ bonsu mencee Yona wɔ Bible mu?** Aha, the English name for that **bonsu** is whale. Do you get it? Now let's go to animals that live in the home. Animals that live in the home...Aha, Osofo
(Who has ever heard the story about Jona and the whale in the bible?)

Child: Elephant

Teacher: No, not elephant. Animals that live in the home...Aaron

Child: Dog

Teacher: Dog, clap for Aaron (they clap). Vincent Oppong Asamoah!

Child: Cat

Teacher: Cat, flap for Vincent (they clap), dog is what? **Kramane**, Do you get it? **Kramane yɛ ne no ara na ɛ te fie.**
(Dog is kramane, we live with it in the house)

Do you get it? We live with dog in the house. Do you get it? And cat which is called cat? Who knows it? Aha, Lakie!

Child: **Kra**

(It is called Kra)

Teacher: **Kra**, clap for Lakie, the English name for **kra** is cat. Do you get it? The English name for **kra** is called cat. Do you get it?

Children: Yes

Teacher: and what again? Animals that live in the home. Yes Lizbeth.

Child: Sheep

Teacher: Sheep, clap for Lizbeth. What is the Twi name for sheep? Twi..err... what do we say it?...Sheep, **ne Twi din de sɛ n?** Aha...what is the Twi name for sheep? Aaron!
(Aaron, what do we call sheep in Twi?)

Child: Dwane

(It is called Dwane)

Teacher: **Dwane**, clap for Aaron. Aha what again Vannesah?

Child: Goat

Teacher: Goat, it is ok. Now let's go to animals that live in the bush. Animals,... when we say animals, that live in the bush, **mmoa bɛ tewuram, bɛ wɔ**

wuram, bε mma fie. Do you get it? Animals that live in the bush. If you know it sit down and raise your hand. Vincent Effa!

(When we talk about animals that live in the wild, we mean those in the bush and do not come home.)

Child: Tiger

Teacher: Tiger, when we say tiger, what animal is it? Tiger, Henry.

Child: **Sebo**

(The tiger is called sebo in Twi)

Teacher: **Sebo**, clap for Henry (they clap), **sebo**, the English name for **sebo** is what? Tiger. Do you get it. Aha; who again? Animals that live in the bush... Aha who again? Aha? ... Emmanuel!

Child: Lion

Teacher: Lion, clap for Emmanuel (they clap). What is the Twi name for Lion? Lakie!

Child: **Gyata.**

(It is called gyata)

Teacher: **Gyata**, clap for Lakie (they clap). Aha what again? What animal again that lives in the bush? What animals live in the bush again? Aha, Ahmed!

Child: Elephant

Teacher: Elephant, clap for Ahmed (they clap), Aha, What is the Twi name for elephant?

Children: **Sono**

(It is sono)

Teacher: **Sono**, clap for her (they clap). Aha, what animal again? Yes Kissiwaa.

Child: Zebra

Teacher: Zebra, clap for Kissiwaa (children clap). Another clap again (they clap)... and the last one (they clap). Give her a top star.

Children: Yeah

Teacher: It's ok, sit down. It's ok. So these animals that live in the bush, they are very wild. Do you get it? They are all wild animals. When we say wild, **ne ho yε n hu.**

(When we say wild, it means it is dangerous)

Do you get it? (Children reply in the affirmative). **Mmoa no a bε wo wuramno bε ho yε hu.**

(Animals in the wild are dangerous)

Do you get it? Example is elephant, **sono... sono sei, ne ho yε hu paa.**

(Take the elephant for example, it is very dangerous)

Tiger is very wild. Do you get it? **Ne ho yε hu.**

(It is dangerous)

Lion, lion too is very wild. Do you get it? So many of those animals that live in the bush are very wild. **Bε ho yε hu.**

(They are dangerous)

Do you get it? 2x (...) Now let's go to baby animals. Say baby animals.

Children: Baby animals

Teacher: We are going to look at the names given to baby dog, **kramane baketewa, yε rebε hwε din a yε de ma no.**

(What do we call a young dog)

Do you get it? Put your hands down. **Yε rebε hwε din a yε de mano ε na dwane ba,** baby sheep.

(The name given to a young sheep)

Do you get it **ε na** baby goat, **ε na** baby cat.

(We will also look at the names given to young goats and young cats)

Do you get it? The name given to baby dog is eer Puppy. Say puppy.

Children: Puppy

Teacher: Again

Children: Puppy

Teacher: Baby dog is called puppy. **Kramane ba de** puppy. Do you get it?

(A young dog is called a puppy)

Children: Yes

Teacher: Puppy

Children: Puppy

Teacher: Puppy

Children: Puppy

Teacher: And the name given to baby sheep is eer say lamb. Say lamb.

Children: Lamb

Teacher: Again

Children: Lamb

Teacher: Again

Children: Lamb

Teacher: **Dwan ba borɔfo de** lamb.

(A young sheep is called lamb)

Do you get it? The name given to baby goat is kid. Say kid.

Children: Kid

Teacher: Again

Children: Kid

Children: Kid

Teacher: Kid. Do you get it? **Apɔnkyeba anaase abirekyireba ne borɔfo de** kid.

Do you get it?

(A baby goat is called kid)

Children: Yes

Teacher: Eer baby cat (child makes noise) baby cat is called kitten. Say kitten.

Children: Kitten

Teacher: **Kra ba borɔfo de** kitten. Do you get it?

(A young cat is called kitten)

Children: Yes

Teacher: So now who can tell me the English name of baby dog? Sit down and raise up your hand. Mariama, louder

Child: Puppy

Teacher: Again

Children: Puppy

Teacher: Puppy, clap for Mariama (they clap) the English name for baby sheep(...) when you are saying it, say it louder ok. Theophilus

Child: Lamb

Teacher: Lamb, clap for Theophilus (they clap), baby sheep is called lamb. Now baby goat...**Apɔnkye ba**. What is the name given to **Apɔnkye ba**?
Abaayaa.

(How do we call baby goat?)

Child: Kid

Teacher: Kid, clap for Abaayaa (they clap) another clap again (they clap) and the last one (they clap). Now the name given to baby cat. Baby cat. The name given to baby cat. **Kra ba n'aborɔfo din de se n?** Lakie

(Lakie, what do we call a baby cat?)

Child: Kitten

Teacher: Kitten, clap for Lakie (they clap). In fact you've done well. Clap for yourselves (children clap) another clap again (they clap) and the last one (they clap). Give yourselves a top star.

Children: Y-e-a-h

Teacher: And the () clap (they clap), *obi secolour blue* (children shout yeee)... very well now (.) we now know kinds of animals....animals that live in water; that live in the bush and those that live in the home, and we also know the animals...the baby animals. Do you get it? Now we are going to learn some foods eaten by animals. Do you get it? Say food eaten by some animals.

Children: Foods eaten by some animals.

Teacher: We are going to look at the foods eaten by dog. Do you get it? Dog, **kramane. Aduane a kramane pɛ no kɛ sekɛ se paa**, we are going to look at it.

(We are going to look at the food that the dog likes best).

Do you get it? So who can tell me the food that dog likes, Aha (.) Blessing? (Child says it) louder, again

Child: Meat and bones

Teacher: Meat and bones. Clap for Blessing (they clap). Dogs like meat and bones. Meat **yɛ ɛ nam ɛ na** bones **nso yɛ deɛ n? kasɛ e**. Do you get it? In the house **koraa no wo redidi na kramane bɛ gyina hɔ na wode nam to hɔ a, wobɛ hu no na wafa**.

(We call meat in Twi nam and bones dompe. Even in the house if you are eating and you don't take care a dog will take your meat away)

Do you get it? So dogs like meat and bones. Say dogs like meat and bones.

Children: Dogs like meat and bones.

Teacher: We are going to look at the food that cats like best. Do you know cat?

Children: Yes

Teacher: What is cat? The Twi name for cat is what, Osofo?

Child: **Kra.**

(Cat is called kra in Twi)

Teacher: **Kra**, clap for Osofo (they clap). Aha, what food, who can tell me the food that the cat likes best, Vincent?

Child: Meat and fish

Teacher: Cat likes meat and fish. Clap for Vincent (they clap). Cats like meat and fish. Meat when we say ... we have meat and we have fish. Do you get it? We use to call fish meat. **Yε frε** fish **nso** meat but when we say meat, **sε yε ka sε** meat **paa a**, **nantwinam yε** meat, do you get it. **Akokɔnam yε** meat. *Fish yε* meat **deε** but fish is fish.

(We sometimes refer to fish as meat, but when we say meat, we are talking about beef, chicken and the like)

Do you get it? 2x. So **kra**, **aduane a ɔpε** **paa yε nam ne** fish. Do you get it? **Nantwinam paa ne** fish; **Akokɔnam paa ne** fish. **Wopε a wowɔ fie na wode nam si hɔ a ma ɔnnkata so, ɔkra bε ba abε fa ntε mtε m koraa.**

(So the best food of the cat is fish and meat like beef and chicken. If you go home and decide to keep meat without covering it, a cat will take it away)

Do you get it? So fish likes meat (makes a mistake) cat likes what? Fish and meat. Do you get it?

Children: Yes

Teacher: Do you know monkey?

Children: Yes

Teacher: Do you know monkey?

Children: Yes

Teacher: What is the Twi name for monkey, Lakie?

Child: **Adoee.**

(The Twi name for monkey is adoee)

Teacher: **Adoee**, clap for Lakie (they clap), **Adoee**. Do you get it?

Children: Yes

Teacher: So, who can give me the food that **adoee** likes () monkey. Raise up your hand? Heh (noise) Aha, monkey likes, aha Theophilus?

(Who can tell me the food that the monkey likes best. If you know, raise your hand and tell me, Theophilus.)

Child: Banana

Teacher: Banana, clap for Theophilus (they clap). Now do you know goat?

Children: Yes

Teacher: Do you know goat? ()

APPENDIX E: Environmental Studies 2

Duration -13:25mins

Teacher: Last week, I taught you about plants and animals. Today we are coming to learn about water. It is time for Environmental Studies. We are coming to learn about water. What is the Twi name for water, Lucy? (Lucy gives the answer) clap for her (children clap) and another clap (children clap) give her a top shout (children shout yeeeah). We all know the Twi name for water. So can you tell me the sources of water? The sources of water, where we get water from, where we get water from, Ye-s-s Dallas. (Sic)

Child: Sea

Teacher: Sea, what is the Twi name for sea, Ah? The Twi name for sea, Saviour?

Child: **Po**

(Sea in Twi is po)

Teacher: **Po**, clap for her. The source of water, Ye-s-s Rockling.

Child: Borehole

Teacher: Borehole, Lucy

Child: Pipe

Teacher: Pipe-borne water. Junior

Child: Well

Teacher: Well, Saviour

Child: Pipe

Teacher: Pipe, Rachael

Child: Rain

Teacher: Rain, what is rain? Who can tell me the Twi name for rain?

Children: Water, water

Teacher: No, Saviour (), louder. **Nsuo a ε tɔ gu fam.**

(What that falls from the sky)

Clap for yourself (children clap), can you tell me the uses of water?

What we use water for. **Nnea yε de nsuo yε**, Aha Alice.

(Alice, tell me the uses of water)

Child: For security

Teacher: For security, Saviour

Child: For washing

- Teacher: For washing
- Children: For transportation
- Teacher: For transportation
- Children: For bathing
- Teacher: For bathing, yes Gerrard
- Child: For cooking
- Teacher: For cooking, what next?
- Children: For washing cars
- Teacher: For washing cars, ok Bright
- Child: For washing
- Teacher: For washing, Afari Mintah
- Child: For security
- Teacher: For security, clap for yourselves (they clap). Give yourself a big shout (they shout), so drinking. Drinking **koraa εye deen a?** Drinking **εye deen a? Wonam na obi bisa wo se** “we use water for drinking, **me nte aseε**” **kyere measeε a, wose ka se n**, Junior?
- (How will you explain drink in Twi? If someone asks you to explain the expression we drink water, how will you explain it, Junior?)*
- Child: **Wɔnom nsuo.**
(Drink in Twi is Wɔnom nsuo)
- Teacher: **Wɔnom nsuo. Enti seesei ara wonam na obi bisa wo sukuuni, maate se** we use water for drinking, **kyere measeε a, woseε ‘maame oh, mepa wo kyew ε kyere se wo renom nsuo’.**
(So from today if you are asked to say what we use water for, say we drink water)
Do you get it clear?
- Children: Yes
- Teacher: For washing, Twi. Washing in Twi. Yes Ferhass
- Child: **Se wɔde eε si adeε .**
(For washing in Twi is ‘wɔde eεsi adeε’)
- Teacher: **Se wɔde esi adeε .** Clap for yourselves (they clap). For bathing, **εye deen a?** *(Good, what is the meaning of ‘for bathing’ in Twi?)*
- Children: **εkyere se woɔdware.**
(Bathing is wo ɔdware)
- Teacher: **Wo εye deen?**

(What does it mean?)

Children: **Woodware**

(Bathing is woodware)

Teacher: Clap for yourselves. Ok **se mo ara moahu.**

(So you yourselves have seen the uses of water).

We use water for cooking, I don't understand. Can you tell me or can you say it in Twi? What do we say, Rockling? (Sic)

Child: **Woonoa aduane**

(cooking is woonoa aduane)

Teacher: Yes, **woonoa aduane. Se wokɔ fie na wo maame ɔnoa aduane a, ɔde bankye no si so a, na ɔde nsuo no agu ho, woahu?**

(At home, when your mother is cooking cassava, she puts it on fire and then adds water)

Ok, do you know what helps us in swimming? Do you know water helps us in swimming? Swimming, **wohu se wokɔ Bergio Villa (.) hwan na woakɔ Bergio Villa da?**

(Who has ever gone to Bergio Villa)

Yes, **woahu pool no a ε da hɔ no? Wonhoo se nsuo bi wɔ mu? Nnipa ɔdware na b'ani agye.**

(Did you see the pool and the water in it? People swim in it and become happy)

So water helps us in swimming. Ok describe the various ways (children disrupt her with noise), Describe...describe the various ways of keeping water clean. How to keep water clean...for conservation, Aha, ways of keeping water clean. Ye-s-s, Elisha, Lucy () louder

Child: Boil river water and cool before drinking.

Teacher: Boil river water and cool before drinking. Boil river water and what? Cool before drinking.

Child: Cool before drinking.

Teacher: Cool before//

Children: //Drinking

Teacher: Yes, what again, Rockling?

Child: Fetch water with clean cup

Teacher: Fetch water with clean cup. Fetch water (.)with clean//

Children: //Cup

Teacher: With clean...cup. **Ɛkyerɛ sɛ woɔsa nsuo a, mfa cup a ɛ ho ayɛ fi tantaantan mfa nsa nsuo no. Fa nea ɛ ho fɛ ɛ fɛ , baahohoro ho no fa yɛ dɛ n? Sa nsuo no.** Aha what again, Rockling?

(It means if you want to fetch water, do not use a dirty cup; use the one that has been washed clean)

Child: Cover water always.

Teacher: Cover water always (children give chorus answer)...cover water...

Children: always

Teacher: **Sɛ nsuo a esi hɔ a daa yɛ nom yi, wo nkoaa wode cup bɛ saa bi no, na woabue so ato hɔ, na nwansena bɛ ɛ wuram, na ntontom bɛ ɛ wuram; na nkura akɛ sɛ bɛ ɛ tɔm. Wobɛ yɛ dɛ n aanom? Enti ɛ yɛ a na woayɛ dɛ n? Na woakata so na ayɛ kamakama.**

(Take for instance this water we have been drinking, if you fetch and you fail to cover it, flies, mosquitoes and mice will fall in it. If it happens that way, you can drink it. So it is good to always cover drinking water)

What again? Yes Garrard, Aha, What again? What again Lucy?

Child: ()

Teacher: Cover water container...it is the same as cover water always, ah? Who again, Elisah?...Aha. Don't make water dirty while drinking, who again? 2x. First of all let me ask you question. Last week I taught you about animals (children respond yes) can you tell me about the uses of animals?

Children: Yes

Teacher: Do you know it?

Children: Yes

Teacher: Hey! The uses of animals. (calls a child to answer)

Child: For transportation

Teacher: For transportation. Yes Elisah

Child: For security

Teacher: For security. Yes Gerrard

Child: For transportation

Teacher: Rockling? clap for yourself (they clap) clap for yourself (they hit their tables with their palms (give yourself a top shout (they shout). So now, we know what we use the animals for; what we use blood for and now I

have taught you what water for; where we get water from; how to keep the water what?

Children: Clean

Teacher: So when you go home and your mother asks you Garrard, today, what did (makes a mistake) your teacher teach you? What will you say? In Environmental Studies, what will you say? () Yes Lois (He answers but he teacher thinks he is wrong) No Lucy

Child: In water

Teacher: In water, clap for her (they clap) clap for her (they clap) clap for her (they clap), so let me ask you again. Can you tell me the sources of water? Tell me the sources of water, Aha, Rockiling.

Child: Well

Teacher: So what is well? I don't know, tell me, Well the meaning of well, Nana Esi.

Child: **Krɔ̃.**

(Well in Twi is Krɔ̃)

Teacher: **Krɔ̃**, clap for her (they clap), Aha Topsu, if your mother asks you what will you say, Lois?

Child: Borehole

Teacher: Bore-hole! Borehole **ε yε deɛ n a? Nsuo a yε pɔmpɛ no sei** no...Aha, **ε bε yε sɛ atere no woahu?** Ok (.) sea Saviour (.) **Po**, have you all being in Accra before?

(What is a borehole? It is water that we pump and it is like a spoon Ok who has ever being to Accra, did you see the sea?)

Children: Yes

Teacher: Ok, where were you staying? **Wokɔ̃ Accra () na wote he fa?**

(Where were you staying when you went to Accra?)

Children: **Abrosan**

(On a storey building)

Teacher: **Wotɔ̃ abrosane? Ei ok woahu po? Po kakraka bi ε te sɛ Dormaa ha nyinaa. Na nnipa redware no b'ani agye. Woahu? Da koro yε bε kɔ** excursion about water.....so we have come to the end of water.

(Did you buy a storey building in Accra and did you see the sea? The sea is as big as the whole of Dormaa. You will always find people swimming in the sea happily.)

I will give you a note to write, Eh? I will write it on the board and you write it in your Environmental Studies books. Go and learn tomorrow I will ask, Aha? We have come to the end of this lesson. Tomorrow I will teach you about light. Do you get it?

Children: Yes

Teacher: About what?

Children: About light.

APPENDIX F: Mathematics

Topic – How Many

Duration- 23mins

- Teacher: How many (5x)
- Children: How many (5x)
- Teacher: Let's count. **Yε nkan**
(*Let's count.*)
- Children: one, two, three, four, five, six, seven, eight, nine, ten
- Teacher: Let's count again
- Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- Teacher: How many? **Ne dodoɔ yε sε n?**
(*How many are they?*)
- Children: 10
- Teacher: Kelvin, write your ten here. **Mε ε ε bε yε dε n?**
(*What have I asked you to do?*)
- Children: **Wobε twerε ten ahyε mu.**
(*You will write 10 inside the box*)
- Teacher: **Box no wobε yε dε n wɔ mu?**
(*what will you do inside the box?*)
- Children: **Wobε twerε ten ahyε mu**
(*You write 10 inside it*)
- Teacher: **Wobε twerε ten ahyε mu. Yε nkan.**
(*You will 10 inside it. Let's count*)
- Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- Teacher: 10(.) (she writes on the board) **yε nsan nkan!**
(*Let's count again*)
- Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- Teacher: So how many tens? How many tens do we have, yes?
- Children: 20
- Teacher: Yess, Triga
- Child: 2
- Teacher: Two-tens, clap for Triga (they clap), two-tens, the same as what? Twenty, because **sε yε kane wei, na yε kane wei na yε ka no nyinaabom a yε baa bε kan** numbers **no a, yε bε nya twenty a, seesei**

yε hu sε , wei yε ten baako, wei nso yε ten baako, enti sε yε ka no nyinaa bom a, yε bε nya 20.....so let's count all of them.

(Two tens are the same as twenty. If we count this separately and that one separately and we add all we will get twenty)

Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Teacher: Another one (they count) (writes on the board) Now here how many tens do we have? (A child says three) If you know it raise up your hand. **Sε mebisa wo asε m na wonim a, ka. Biaa nsɔre wɔ ne dabre nka.**

(If I ask a question and you know the answer, say it. Everybody get up and say it)

Justella tell us. Yess Justella how many tens do we have?

Child: Three tens

Teacher: Three tens! Clap for Justella (they clap). We have three tens, the same as what? Three **no**, the same as what? **Ɔse yε wɔ three tens, sε wo retwere a, wobε twere no sε n** (children give chorus answers) Aha?

(He says three tens, so how will you write it?)

Vincent: **Wobε twere three na woatwere zero**

(You will first write three and then add Zero)

Teacher: **Wo bε twere three na w'atwere zero.**

(You will first write three and then add Zero)

Clap for Vincent (they clap). Now, look here, this too is what?

Children: 10,...10

Teacher: 10, I also want to come and count. Once you come and count this (she writes and children count), Yes, come and count, count.

Children: 1, 2, 3, 4

Teacher: Four! So how many tens did I get? How many tens?

Children: 4

Teacher: **Four-tens. Enti wɔbisa wo how many a, wobε ka sε n?**

(So if you are asked 'how many', what will you say?)

Children: Four-tens

Teacher: Four-tens. We have four tens. Another one.

Children: Four-tens

Teacher: (.2) how many times do we have?

Children: Two times

Teacher: Come and write it. Come and write it, write it. Is it correct?

Children: No

Teacher: Is it correct?

Children: No, Yes

Teacher: Is it correct?

Children: Yes

Teacher: Clap for her (they clap) (.), Now, this one how many? How many, yes, Bernice?

Bernice: one

Teacher: Justella, hey, Eunice, come and write it here! **Gye bεtwεε na menhwε.**

(Write it here and let me see)

(Child goes to the board and writes). Is she correct?

Children: No

Teacher: Vincent, come and write it for us (Vincent moves to the board to write) clap for him! (They clap), another one, another example (.2) **Nea belt bɔm biara yε sε n?**

(This bundle contains how many items?)

(.) look on (she writes) How many tens do we have here? (Seven children raised their hands and call for her attention) Triga?

Triga: 10

Teacher: Clifford, how many?

Clifford: Five

Teacher: **Five, ɔse ε yε sε n?**

(He says how many?)

Children: Five

Teacher: Clifford, come and write it for us. Come and write it here. Write it in the box. **Twεε no wɔ box no mu. Twεε wɔ box no mu.**

(Write it inside the box)

*(Clifford writes on the board) clap for him. (they clap) (.) Agyapong, how many, how many tens do we have here? Agyapong stand up and talk. **Sɔre gyina hɔ na kasa. Mebisa woase m a sɔre gyina hɔ.***

(Agyapong, stand up and talk. If I ask you a question you must stand up before you talk)

Yes? (Agyapong stands and gives the answer). Is Agyapong correct?

Children: No

Teacher: Who else? Blessing how many?

Blessing: 5

Teacher: Is Blessing correct?

Children: No

Teacher: Yes, Tony

Tony: Seven

Teacher: Seven, clap for Tony (they clap) one should come and write it in the box.

Baako mmra mmɛ twerɛ no wɔ box no mu.

(One of you should write it inside the box)

Tony, come and write it for us. (Tony writes). Is this how we write seven? **Saa na yɛ twerɛ seven?**

(Is that how seven is written?)

Children: No

Teacher: Yes, Stella come and write it (she writes it correctly). Clap for Stella (they clap) **Enti obiara ate aseɛ ?**

(I hope you he all understood the concept?)

Children: Yes madam!

Teacher: **Obiara ate aseɛ ?**

(Have you all understood?)

Children: Yes madam!

Teacher: **Wo bɛ tumi ayɛ?**

(Can each one of you do it?)

Children: Yes, madam!

Teacher: Let's look at another example; how many? How many tens do we have?

Yaahu tens dodoɔ yɛ wɔ. Yɛɛ bɛ hwɛ wei nso ahwɛ, another example.

(We have seen the number of tens we have. Let us try this one too.)

Wo huu tens dodoɔ sɛ n? Wei yɛ sɛ n? Wei ɛ yɛ sɛ n, yes?

(How many tens did you get? How many are these?)

Children: Two

Teacher: **Wei, ɛ yɛ sɛ n?**

(How many are these?)

Children: One

- Teacher: *One ten, Ten no yε mee he? εna wei nso ε?Three*
(How are many are the one tens?)
- Children: Three
- Teacher: We have one ten, three-ones, we have on-ten, three-ones. Let's count.
- Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
- Teacher: 13. So if you add this to this, you get what? 13. So you write the 13 in the box. **Woahu?**
(Have you seen?)
- Children: Yes madam.
- Teacher: Another example (writes on the board). Now how many tens do we have? How many tens do we have?
- Children: Three
- Teacher: I have asked you. **Mabisa woase m?**
(Have I asked you a question?)
 Yes three. How many ones, how many ones? Yes, one, **enti one wei be ka three no ho a, yε be nya se n?**
(So if you add this one to the three what will you get?)
- Children: 4
- Teacher: **Yε wɔ ten-three. Wo retwerε a, wobε twerε no se n ? () se saa na wobε twerε no? Na wode one wei akɔka ho; anaa me boa?**
(We have three tens, so how will you write it? Is that not the way you will write it? And then you add one. Is that not so?)
- Children: Aane
- Teacher: **Yε nkane nhwε**
(Let's count and see)
- Children: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
- Teacher: 31. Three-tens plus one is what?
- Children: 3
- Teacher: Three-tens, **na wode one no be ka ho a, wonya se n? Yε nyaa se n, yes Justella?**
(What will be the answer if you add one to three tens Justella)
- Justella: **Yε nyaa 31**
(We had 31)

Teacher: **Yε nyaa** thirty-one. Clap for Justella. **Yε bε nya** thirty-one. **Yε wɔ tens no ahodoɔ mmiensa. Tens no ε yε sε n?**

(Clap for Justella, it is 31 because three tens plus one will give you 31. How many tens do we have?)

Children: **Ahodoɔ mmiensa.**

(Three tens)

Teacher: **Wei yε sε n?**

(How many are these?)

Children: **mmiensa**

(Three)

Teacher: **Na yaayi one. Na yε de ten yi one abε ka ho na ayε sε n? 31. Na ayε 31. Wowɔ 31. Wowɔ ankaa30, wokɔ kyini yaa, wei anya mmaako, mmako 10, wo nso wanya 10, wei nso anya 10 ε nna Winnifred nso kɔ nyaa 1. Enna yε kaa no nyinaa bɔɔm. wei deε 10; wei deε 10; wei deε 10; ε nna wei yε de wei deε 1 no kaa ho. Enti, yε de kaa ho no, yε bε nya sε n? Yε bε nya sε n? 31. Yε faa Messach deε 10; Messach deε 10 no, ε no nie, ε nna yε faa Vincent deε 10, ε no nie, ε nna yε de guu kε ntε n mu, ε nna yε faa wei nso deε 10 ε no nie, ε nna wei nyaa one; ε no nso nie, enti yε ka no nyinaa bom a, yε bε nya 31. Yε nya 31 oranges. 31 oranges. Saa na wei pε sε ɔkyerε wo. 31 oranges. This is how we write 31. This is how we write 31. Another example (she writes on the board). **Wei nso yε kan ten dodoɔ sε n?** How many tens? How many tens? **Maahu sε woɔkasa; me mmfrε wo, mε nkasa.** How many tens? Yes, **ε yε sε n?** How many tens?**

(If you have three tens and you add one you will get 31. Assuming we have 30 oranges, 10 are for you, 10 are for your friend, another friend for your other friend and Winifred also has one. When we add all, we will have 31. Out of these, 10 are for Vincent, 10 for Messach, 10 for you and one for Winifred, so if we put all in a basket, we will have 31 oranges. That is all these are about.” Let us try another example. I have seen that you are talking. If I have not called you, don’t talk. How many tens do we have?)

- Child: Two-tens
- Teacher: Two-tens, clap for him (they clap). How many ones? How many ones?
One-one no a belt bom no, ne dodoɔ yɛ sɛ n?
(The one-one in the bundle are how many?)
 How many ones, yes, Bernice, Clifford Princess, Yes?
- Princess: 24
- Teacher: 24, **enti ones no, ne dodoɔ yɛ mmiɛ he? Ones no yɛ mmiɛ he?** How many ones yes, Vincent?
(So how many are the ones, Vincent?)
- Vincent: Four-ones! Clap for Vincent (they clap)...**saa 4 no bɛ ka 20 wei ho a, yɛ bɛ nya sɛ n?**
(So if we add four ones to twenty what will be the answer?)
- Rosy: 24
- Teacher: 24. Clap for Rosy (They clap). Suzzie, come and write 24. Come and write 24. (Suzzie writes it out eh board) (.) Is this how we write 24?
- Children: No
- Teacher: Yess (Invites a child) come and write 24. (He writes it correctly). Clap for Vincent (They clap) (scolds a child) **Ei wo deɛ wose me nyɛ hwee () . Me reyɛ no na wo rekan, enti me wie a, na woabɛ hyɛ answer (.2)**
(As for you you don't want to do anything, so as I write calculate the answer)
 Aha, how many? (A child provides the answer) Three. We have three, clap for her (They clap). **Mo akasa a, mo nka no kɛ se.**
(Speak aloud if you want to speak)
 How many tens do you have? **Wonyaa sɛ n**
(How many did you get)
 (calls a child) Aha? 33. **Ɔde onyaa 33. Enti, we have three-tens, three-ones, woahu?**
(That we have 33. This is because we have three tens and three ones)
 One-one **no yɛ three, enti woka bom awobɛ nya sɛ n? 33.** Clap for yourselves. (Children clap).
(The one-one are three, so if you add all you have how many?)
Yɛ rebɛ yɛ work no.
(We are going to do the exercise)
- Children: Yes, madam.

Teacher: **Yε rebε ye wei ama wode aba ama ma marki no m'ahwe se mote
aseε paa ne nea ε bε ye adeε paa (.2).**

(You are going to do this for me to see if you have understood the topic)

APPENDIX G

TOPIC: FAMILY

DURATION: 21:02

- Children: Happy family
- Teacher: Again
- Children: Happy family
- Teacher: Happy family, Good. “I have a mother (children sing a song entitled “I have a mother and father”)....() is that not?
- Children: Yes
- Teacher: Family (Teacher spells family) ,family Good! Then after that...it is a sum of what? We have a mother, you have a father and then we have one sister you also have two brothers, we come together to form what?
- Children: Family
- Teacher: We come together to form what
- Children: Family
- Teacher: So being the father, mother, sister and brother comes together to form what?
- Children: Family
- Teacher: So do you have a father?
- Children: Yee
- Teacher: You have a mother?
- Children: Yee
- Teacher: You have a brother?
- Children: Yee
- Teacher: You have a sister?
- Children: Yes
- Teacher: Then it means you have what?
- Children: Family
- Teacher: You have what?
- Children: A family
- Teacher: You have what?
- Children: A family

- Teacher: Good, you have a family. Very good, now in a family () every family, everyone has a duty in the family.
- Children: Yes duty!
- Teacher: We call it what?
- Children: Duty
- Teacher: Duty eh?
- Children: Or a role
- Teacher: Thank you...Good. Now we are going to talk of roles of a parent. Role of what?
- Children: A parent
- Teacher: Role of a what?
- Children: A parent
- Teacher: Role of a//
- Children: //Parent
- Teacher: Good, parent **koraa**...who is a parent?
(Who at all is a parent?)
- Me, I don't know(.) if you want to talk raise up your hand. Because me, I was a **kubola, manko sukuu**, so I don't know what a parent is.
(As for me, I was a truant; I never went to school so I don't know who a parent is.)
- I am like somebody mother. I did not go to school...I don't know when we say parent, what is parent, eh? (A child talks and teacher responds) were you there? So you need to send me to school everyday? Eeeii big Sarah. Ok so if we say parent, what is parent? **Mesendii (I sent) wo album paa**, so tell me what a parent is. (Sic)
(I sent you an album so tell me who a parent is).
- (Children made noise) I did not attend school and so what? Yes Rejoice, what is parent?
- Rejoice: Parent is a father, mother, sister and...brother.
- Teacher: I told.....good girl Rejoice! Rejoice said that...mother, father, sister and brother - they are parents. Good, clap for her (they clap). But don't forget she said the family is what? Your father, mother, sister and brother. So family and parents are the same eh?
- Children: Yee
- Teacher: Are they the same?

- Children: No
- Teacher: Family and parents they are not the same
- Children: No
- Teacher: Then it means Rejoice what you said is somehow correct (.) There is a small mistake somewhere, so someone should correct Rejoice for me. Rejoice is not wrong yet. (Some children remark that Rejoice is wrong but the teacher disagrees) have not what?(.) **Agyaa ntie(.)Agyaa ntie (.) Agyaa ontie(.)Agyaa ntie Eh? Agyaa ntie.** Yes then who can help Rejoice a bit? (He calls a child).
(Agyaa is not paying attention)
- Children: Brother...Ei! Mother, father, brother and sister.
- Teacher: What Rejoice said, you also said the same thing...Yess Tawfick?
- Tawfick: Father and mother
- Teacher: Again
- Tawfick: Father and mother
- Teacher: We said what?
- Children: Mother and father
- Teacher: Mother and father. They are what? (2x)
- Children: Parents (2x)
- Teacher: So we said, your mother and your father (.) parents are your what? Father and what? (Sic)
- Children: Mother
- Teacher: Do you have a father?
- Children: Yes
- Teacher: You have a father, good. Now we are going to talk of the role of parents. We are going to talk of role of your father and your mother. So we want to take them one by one. Eh?
- Children: Yes
- Teacher: Let's write some of the father...yes. Me I have a father. I will tell you what my father do for me and then you also tell me what your father does for you (He writes on the board). One, my father send me to school. Yes, he send me to school is not, **ɛ ɔde wo kɔ sukuu? ɔɔ wo nsa de wo kɔ sukuu tim-tim-tim.** (Sic)

(When I say your father sent you to school it does not mean he held your hand and personally sent you to school)

Not that one. What we are referring to is we send you to school like **te sɛ wo yɛ** parent going to House of Hope and we send you to Mr. Amanor... “Mr. Amanor, this is my child (.2) I want you to enroll him in your school. Then he becomes a student of House of Hope International School and came with a broad idea **a ɔbɛ tumi akyerɛ adeɛ , a ɔbɛ tumi ayɛ** teacher **papa bi. Meba no** police **anaa sɛ** soldier Eh? It is the same thing. My father also sent me to school, Eh? And the (.2)so your father also sent you to school. Is that not?

(Assuming you are a parent and you send your child to Mr Amonor to admit him into his school, so that the child become an important person like the teacher a policeman or a soldier)

Children: Yes

Teacher: So when you father send you to school, what are some of the things your father do for you in the school. (A child provides an answer in an audible voice) He does what? Your father gives you what?(Sic)

Children: Money

Teacher: Your father makes sure that he always give you money to do what? (Sic)

Children: To eat.....to buy

Teacher: To buy what?

Children: Food

Teacher: To buy what?

Children: Food

Teacher: It means your father’s role is to provide you with what

Children: Food

Teacher: To provide you what?

Children: Food

Teacher: To provide you what?

Children: Food...money

Teacher: Food, eh – good! So, the number one role of your parent? Turn your book to the role of a parent. Role of a parent, () role of a parent, role of a parent. Are you there?

- Children: No
- Teacher: That is chapter 16 page number forty, sorry 34. Page number 34. Page number 34. Are you there?
- Children: Yes
- Teacher: Role of a parent. Are you all there?
- Children: Yes
- Teacher: Have you seen that one?
- Children: 34...thirty...thirty-four
- Teacher: So now, your parents, for example, your father send you to school eh?(Sic)
- Ɔde wo kɔ sukuu. Hwan na ɔde wo kɔ sukuu?”**
(*You were sent to school by whom. Who sent you to the farm?*)
- Children: **Me papa**
(My father)
- Teacher: Your father, eh? And what are some of the things your father do when you go to school? **ɔde wo kɔ sukuu a ɔ meki (make) sure sɛ ɔyɛ deɛ n?**
(*He sends you to school, and also ensures that you have money*)
- Children: **Ɔma wo sika** (another child speaks) pays your school fees.
(*He gives you money*)
- Teacher: Pay your school fees. He does what?
- Children: Pay your school fees
- Teacher: Pays your what?
- Children: School fees
- Teacher: **Enti wo** school fees **a wotua no**, sometimes, **wo maame na ɔde sika no ba**,
then you go and give it to your headteacher. But who gave the money to your mother? **Hwan na ɔde sika no maa wo maame?**
(*Sometimes it is your mother who gives you money to pay your fees but who is actually the source of that money?*)
- Children: **Me papa**
(My father)
- Teacher: Your who?
- Children: Father

- Teacher: Your who?
- Children: Father
- Teacher: **Wo papa na ɔde sika maa wo maame se ɔnkɔtua wo** school fees. So who is paying your school fees here? Who is paying you school fees?
(It was your father who provided the money for your School fees)
- Children: Father
- Teacher: Father, that is good. If you want to talk, put up your hand. That is how we do. **Enti wo papa tua** school fees. **Wo papa meeki** (make) sure **se** there will be food in the house “chop money”. Do you know “chop money”? **Se ye ka se** chop money **a wonim adekorɔ? Ne Twi, ye frɛ no akɔnhoma. Ye frɛ no se n?**
(So your father pays your fees and also ensures that there is food in the house. Do you know what chop money is? It is what we call in Twi Akɔnhoma. What do we call chop money (housekeeping money))
- Children: **Akɔnhoma**
- Teacher: (A child gives answer) That one is not chop money. **Enye e no na eyɛ akɔnhoma no. Akɔnhoma eyɛ efie. Akɔnhoma eyɛ sika a wo maame, wo papa de ma wo maame, na ɔkɔ market eh?** And then she will go and buy plantain, cassava **na watɔ mɔmɔne eh?**
(Akɔnhoma is the money given by your father to your mother to go to the market and buy food stuff and fish)
- Children: Koobi//
- Teacher: //garden eggs or eggplant. Do you know egg plant? **Nyaadoa eh?** And she comes to the house and prepare food for you. We call it chop money. We call it chop money. We call it what?
- Children: Chop money
- Teacher: We call it what
- Children: Chop Money
- Teacher: Chop Money, Eh? So your father provides all this. So your father can give you chop money. And then the house live in, **wo fie no a wote mu no, eh?** Who build it? Who provide it? **Hwan na ɔmaa ye sii fie no?**
(The house in which you live who built it?)
- Children: My father //my mother

- Teacher: **Hwan na ɔmaa yɛ sii fie no?**
(*who built it?*)
- Children: My father// my mother
- Teacher: **Wo papa.** Prosper let them explain. Geoffrey, **wo deɛ ne sɛ wo papa nni ha. ɔyɛ adwuma wɔ Gambia eh? Ehe, wo papa yɛ adwuma ɛ wɔ fa he?**
(*It is your father. Prosper, let me explain this. Geoffrey, as for you your father work in the Gambia, he is not here. Where does he work?*)
- Geoffrey: Gambia
- Teacher: **ɛnna wo maame nso ɛ?**
(*What about your mother?*)
- Child: Koraso
- Teacher: **Ehe! enti wo ne wo maame na ɛ te woahu, enti wo papa da biara ɔbɛ ma wo sika akɔ school a, ɔbɛ fa kaa afiri Gambia tɔnn abɛ gyina Koraso na woama wo kaa sika , err chop money, na woasan akɔ?**
(*So if your father has to give you money, will he come all the way from the Gambia to Koraso just to give you money?*)
- Child: Daabi
(*No*)
- Teacher: So every week **biara no, na wo papa ayi sika bebreɛ na ɔde abɛ wo maame sɛ adeɛ kye** when you go to school **a, ɔma wo** one cedi then you go and buy food **ne wo maame de ama wo eh? Baabi a wote no**, if you have a room. The house you live in, **na wo papa yɛ adwuma a, na woayi sika afiri Gambia** to look for a room **sɛ nea ɛ bɛ yɛ a, Prosper bɛ da hɔ. Na wo maa me akɔpɛ dan no. Enti hwan na ɔpɛ ɛ dan no maa wo?**
(*So every week your father sends your mother money to take care of your feeding as well as your accommodation. So who is in fact providing accommodation?*)
- Children: **Wo papa**
(*Your father*)
- Teacher: Good, so don't say it is your mother, who give you shelter....**ɛ yɛ wo papa** but your father is not living with you. **ɛ no ntɪ wo maame no**, but **wo papa na ɔde sika maa wo maame na ɔde yɛ ɛ deɛ n? Ɔde tɔɛɛ .**

(Good, it is your father but because he is not with you he does that through your mother so next time don't say it is your mother who provides accommodation)

Child: My mother has his house and my father has his house.

Teacher: Ahaa, Good, eh? **Sε moate easeε ? Eh, Beki, wopε sε wokasa?** You want to say something?

(I hope you now understand it? Do you want to say something, Becky?)

Beki: Mr. Joe, sometimes when your father travels, your mother send you to school.(Sic)

Teacher: **Ehe, no sε tie oo, ɔde wo kɔɔ sukuu no, “send you to school no” ε nyε sε wo papa sɔɔ wo nsa de wo kɔɔ sukuu oo?** “Send to school no ε nyε sε wo papa de wo kɔɔ sukuu” Sometimes your sister, if you have a grown up sister, **wo wɔ sister panyin anaa ‘bra’ panyin bi mpo a** they can hold your hand and send you to school. But **wo maame de wo rekɔ sukuu no**, who pays your school fees?

(It is true but ‘send to school does not necessarily mean your father personally sent you to school. Sometimes and elder sister of yours can send you to school but who pays your fees?)

Beki: My father

Teacher: So it is your father who send you to school, Eh? Even I quite remember **naano wo reyε** classes - Reading Club, **wo papa nni hɔ no, sε woyεε a no, wo faa bag na wode sika too wo bag mu na wobε tuae.**(Sic)

(So who paid for your Reading club? So it is your father who sent you to school. I remember the other day your father gave you money to pay for the Reading Club)

Beki: My father

Teacher: So who is taking care for you in school?

Beki: My father

Teacher: You father, **enti wo papa adwuma a ɔyε no bi no no.** Yes Frederick? (child speaks).

(So this is one of the duties of a father)

Frederick: My mother gives my father money

Teacher: Yes that is it. Do you know why your father gives you mother money?

Child: No, my mother gives my father money.

Teacher: That one is not part of what we are doing. () it could be **sε wo papa**, your father oh, “today I have plenty money with me oo... **sika no**

dɔ̃so saa na merəkɔ kurom woahu? Anhwɛ a na sika no ayera, enti (Demonstrates with children) **this is your mother. Wo maame ni ɛ ne wo papa ni eh? Na mede sika no ama no sɛ “oh, me yere gye sika wei to hɔ ma me; merəkɔ kurom aba. Merəkɔ kurom aba. So I will go to town na ma aba. Mempɛ sɛ sika no bɛ yera. Enti me baae no mese ei Nancy err me nni sika koraa wɔ hɔ oo...sɛ sika bi koraa wɔ hɔ oo...ma me sika no bi. And then.....moahu sɛ woama no sika?** Is she not giving him money? But the money is for who?

(No, that is not what we mean. It could be that your father had a lot of money on him when going to town but thinking that the money might get lost, he gave it to your mother for safe keeping. So if I am your father and you see me taking money from your mother it does not necessarily mean that the money is for your mother. But for who?)

Children: You

Teacher: **Ehe! But wo maame de sika no ama me. ɛno nkyerɛ sɛ wo maame na ɔma me sika. No but wo papa na ɔde maa wo maame sɛ ɔmfa nto hɔ, ɔba a, na woabɛ gye.**

(Yes, your mother gave him money but the money actually belongs to him)

(Children give various examples) **Ehee! That is it, very good. That is it. But that is why me use Prosper deɛ no de yɛ ɛ example no.**

(That is why I used Prosper as an example)

Prosper papa atu kwan enti ɔde sika no maa Prosper maame to use it to take care of him eh? So the same thing.

(His father is abroad but he sends money for Proper's upkeep)

So you, if your father has travelled to anywhere-wherever he is...sometimes he gives your mother money...and your mother use the money to take care of you eh? Good () good, that is it. So shelter...when we say shelter () you know shelter?(Sic)

Children: Yes

Teacher: Who provides the shelter?

Children: A place you sleep

Teacher: A place you sleep. So your father provides that, pays your school fees, makes sure he provides food - food no ɔma mo aduane. **Wo papa ɔko afuom. Yɛ n a yɛ papa ɛ nyɛ adwuma biara no,** because he has a work to do eh?

(Your father provides shelter, pays your fees and provides food. If your father is not a salary worker he goes to farm.)

Children: We have cocoa

Teacher: Sometimes -yes...eh, some of your fathers have to go farm **na w'adɔ saa** then he will bring ca - there will be cassava - plenty **bankye** in the farm and he will bring to the house for us to eat. For example Hetty father, he has to work and make sure that he provides food - a poultry farm eh? He has to work - work every day; make sure there is plenty egg; **kosua bebree** then he will go and sell them, and then when the money comes he give it to Hetty mother to take care of Hetty and sometimes if they want me to eat () this is what they will use to make food for us to eat eh. So your father provides you what?(Sic)

(Sometimes your father has to go to farm, weed and bring cassava home. Let's take Hetty for instance, her father is a poultry farmer so he has a lot of work to do and ensure that there are always eggs for sale and for consumption at home.he works to ensure Hetty's mother will get money to take care of her. The money made from the sale of eggs will guarantee the constant supply of food at home.)

Children: Food

Teacher: And then he provides you shelter, pay your school fees, eh? And then **wo papa nso** some of us **ye ye akɔdaa bɔne a, hwan na ɔbe tu ye n fo?**

(Then again some of us are very bad, so who advises us?)

Children: Wo papa

(Your father)

Teacher: **Wo papa**, they give advice, they give what? They give you what? (3x)

(What does your give you?)

Children: Advice (3x)

Teacher: Good, so that is the role of the father. And then, so, let's go to the mother too. Mother - **se wɔka se** mother **a, se wonim** mother? Mother **no ye de n a?**

(Good; these are the roles of a father. Let's consider that of a mother too. When we say 'mother' what does it mean in Twi?)

Children: **Wo maame**

Teacher: **ɔye hwan**

(what is mother?)

Children: **Wo maame**

- Teacher: That is your mother eh? Everyone has a mother, eh?
- Children: Yes
- Teacher: Good, now let's talk about what the mother do - **adeε a wo maame ye ma wo, eh?** For example, Prosper, **wose wo maame ye deε n?**(Sic)
(Now let's talk about the role of a mother. Prosper what did you say your mother does?)
- Prosper: **Ɔnoa aduane**
(She cooks food)
- Teacher: **Ɔnoa aduane...**your mother cooks food and what again? **Deε n bio?**
(Apart from cooking, what else does she do?)
- Children: **Ɔkɔ adwuma**
(She goes to work?)
- Teacher: What work? **ɔkɔ adwuma, wo sewo** mother **kɔ adwuma a, adeε a, wo maame ye ma wo.** What your mother does for you is what (.) do for your family. For example, **sε ebia** your father - **wo papa...wo papa ɔde aduane ba fie eh?** And then **wo papa ɔsan ye deε n bio; ɔsan** provide shelter eh? And then **wo papa san ma wo** advice - **ɔtu wo fo.** Now **ε na wo maame nso, wo maame noa aduane ma wo di,** because **wo papa de aduane ba fie a, aduane no si hɔ saa...wobεtumi adi bankye no a wɔnnoaeε?** Can you eat raw cassava? “ Yes she goes to work but I am talking about what he does for the family. For instance, your father provides shelter, food and advises you.
(Your mother cooks. When your father brings cassava home, can it be eaten raw?)
- Children: No
- Teacher: No, unless you cook it, good! Who will cook the cassava...?
- Children: Mother
- Teacher: And then what again? **εdeε n bio na wo maame ye?** Some of the things your mother do eh(.)Eugene. (Sic)
(What else does your mother do? Some of the things she does)
- Eugene: My mother go to the market and buy food
- Teacher: Good, the mother always make sure that she go to the market. **Wo papa de sika ma wo maame a, sika no kuta wo maame aa, ɔbεtumi adane bankye?** (Sic)

(When your father gives your mother money, does it just turn to cassava?)

Children: **Daabi**

(No)

Teacher: **ε bε tumi adane mɔmɔne?**

(Will it turn to fish?)

Children: **Daabi**

(No)

Teacher: **Ah, εbenada hwan na ne maame kɔɔ dwam?**

(Whose mother went to the market on Tuesday?)

Children: Me

Teacher: **ɔkɔ yε ε deε n wɔ dwam hɔ?**

(What did she go to do in the market?)

Child: **Ɔkɔtɔ adeε ()me maame yε trader.**

(My mother went and bought some items because she is a trader)

Teacher: **Wo maame yε trader good. Ɔkɔtɔ bankye, na waatɔ bɔɔdeε na watɔ nam aka ho, ε ne nkyene.**

(Your mother is a trader so she bought cassava, plantain, salt and some meat)

Children: **Ntoosi, nyaadoa**

(Tomatoes and garden eggs)

Teacher: And then she use it to prepare food for you. **Aha! Hwan nso bio?** Who knows something, aha Sara? (Sic)

(She then uses these things to prepare food. Who else can add something, Aha Sara?)

Sara: My sister go to the market (Sic)

Teacher: No, I am talking of mother.....mother not sister Eh, good but what Sara is saying is correct eh? She says that her sister goes to the market. That one is role of the children. That is true.....good. Yes but we are talking about mother. Mother here mother we are talking of mother. Douglas (gives wrong answer), Ehe, yes what else?

Children: If you are sick, your mother will send you to the hospital.

Teacher: Hospital, clap for Prosper (they clap) Prosper says that if you are sick, your mother send you to the hospital. **Woyare**, that time..seisei right now your father is in the farm working or your father has gone to work. **Ɔwɔ adwuma mu na wone wo maame nkoa te hɔ. wo yε**

akɔdaa ketekete wɔhɔ then you are sick. **Woyare**, who will send you to hospital?

(Imagine your father has gone to work and you are at home with your mother alone and suddenly you fall sick, who will take you to the hospital?)

Children: Your mother

Teacher: **Enti wo maame beɛ gya wo ato hɔ ama wo papa afiri afuom aba abɛ fa wo akɔ** hospital.

(Will your mother wait for your father to come and take you to the hospital?)

Children: **Daabi - se wo papa wɔ hɔ deɛ a.**

(No, she will only depend on your father if he is around)

Teacher: So your mother will send you to hospital. Your mother will send you to where?

Children: Hospital

Teacher: Hospital, good. And then what again? What again? For example, **ma memfa wei mmra.....Monday wobaa sukuu; woahyɛ** uniform; **ayɛ fi, fi; woaworɔ agu hɔ.** Tuesday, **woahyɛ** school uniform **ayɛ fi, woaworɔ agu hɔ.** Wednesday, **wobɛ fa** school uniform **fi no ahɛ aba** school?

(Let me say this, you wore your uniform to school on Monday, it became dirty; on Tuesday, you wore another one and it became dirty; Will you wear the same uniform on Wednesday?)

Children: **Daabi, wo maame beɛ si ama wo.**

(No your mother will wash it for you?)

Teacher: **Wo maame** will do what?

(Your mother will do what?)

Children: Wash it for you.

Teacher: Wash it for you. Good! So who will do the washing?

Children: Mother

Teacher: Mother will wash the clothes for you. Your mother will do what?

Children: Wash

Teacher: Wash your what? (Sic) (2x)

Children: Cloth (2x)

APPENDIX H: QUESTIONNAIRE

I am George Atiemo, an Mphil student from the University of Ghana, Legon, conducting a research into the linguistic practices of pre-school teachers in the classroom. I would like to solicit responses to this questionnaire. I assure you that all the information given will be treated confidential and solely for the purpose of this study.

SECTION A

1. Name of school:.....
2. Age:
3. Sex i. Male [] ii. Female []
4. For how long have you been teaching?
5. What is your native language?

SECTION B

6. Indicate your level of competence in Twi
 - i. Full competence []
 - ii. Moderate competence []
 - iii. No competence []
7. What is your competence level in English?
 - i. Full competence []
 - ii. Moderate competence []
 - iii. No competence []
10. What language(s) do you use when teaching your pupils?
11. How often do you use Twi in your teaching?
 - i. Always []
 - ii. Occasionally []
 - iii. Not at all []
12. How often do you use English in your teaching?
 - i. Always []
 - ii. Occasionally []
 - iii. Not at all []
13. How often do you use both Twi and English in your teaching?
 - i. Always []

ii. Occasionally []

iii. Not at all []

SECTION C

14. For what reason (s) do you use both Twi and English in your teaching? Tick as many as you consider necessary.

i. For explanation []

ii. For easy expression []

iii. For translation []

iv. For encouraging learners' participation []

v. For checking pupils' understanding []

vi. For correction []

vii. For repetition []

viii. For emphasis []

ix. For getting learners' attention []

x. For social relationship []

xi. For showing a sense of belonging []

xii. For giving instructions []

xiii. For ensuring classroom discipline []

xiv. Others

SECTION D

15. What language(s) do you use with your pupils outside classroom?

16. What language(s) do the pupils use amongst themselves?