

UNIVERSITY OF GHANA

**USING ENVIRONMENTAL PRINTS TO TEACH READING
AT THE BASIC SCHOOL**



**THIS THESIS IS SUBMITTED TO THE UNIVERSITY
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LANGUAGE DEGREE**

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DECLARATION

I, Babulweri, Juliana, hereby declare that with the exception of the references and quotations from other sources which have all been dully acknowledged, the entire thesis is the result of my own original research and no part of it has been presented for another degree in the university or elsewhere.

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BABULWERI, JULIANA**(CANDIDATE)**

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DATE

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PROF. KOFI K. SAAH**(SUPERVISOR)**

.....

DATE

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DR. P.K. AGBEDOR**(SUPERVISOR)**

.....

DATE

DEDICATION

This work is dedicated to my daughter, Nicole Teyir Ire and to the Glory of God Almighty.



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This work would not have been possible without the assistance of others. I wish to express my profound gratitude to my supervisors, Professor Kofi K. Saah and Dr P.K. Agbedor whose expertise, insightful discussions, critical comments and thoughtful guidance resulted in the completion of this thesis. May the Almighty God richly bless and strengthen them.

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ABSTRACT

This study examined the use of environmental prints as appropriate teaching/learning materials for the teaching of reading in JHS One in rural areas with inadequate teaching/learning materials. The aim of the study was to find out whether an intervention/treatment using environmental prints would improve the reading abilities of learners.

The sample of 66 JHS One pupils and two English teachers were from Wurishie Al-Badal JHS in Tamale.

Data for the study was collected through questionnaire and tests. Responses from the questionnaire revealed that respondents had no idea that environmental prints could be used to teach or learn reading/literacy in the classroom.

A pre-intervention test was conducted to assess the performance of learners in some language skills before the intervention was carried out. A posttest was then conducted to find out if learners' reading abilities had improved or not after the intervention with environmental prints. The findings show that environmental prints impacted positively on the reading and even the writing of learners since there was a significant difference in the mean gain scores between the control and the experimental groups. This therefore provides evidence in support of the use of environmental prints to teach reading at the basic school.

In order to help pupils in rural schools with inadequate teaching and learning materials especially, English Language textbooks to learn to read, the study recommended that environmental prints be incorporated in the curriculum and teachers be trained on how to acquire and use environmental prints to teach reading in the language classroom.

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LIST OF ABBREVIATIONS

ANOVA	– Analysis of Variance
EP	–Environmental Print
NICHID	– National Institute of Child Health and Human Development
JHS	– Junior High School
CRDD	– Curriculum Research and Development Division
SDA	– Seventh Day Adventist
WAEC	– West African Examinations Council
BECE	– Basic Education Certificate Examination
NGOs	– Non Governmental Organizations
ESL	– English as Second Language
ELL	– English Language Learners
CELL	– Center for Early Literacy Learning
MDAs	– Ministries, Departments and Agencies
CRT	– Criterion Referenced Test
NEA	– National Education Assessment
GES	– Ghana Education Service
SPSS	– Statistical Package for the Social Science

CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction / Background to the Study

Reading is a basic literacy skill needed by learners to study in order to be able to make use of the learning opportunities in school and beyond. However, it is sad to say that many children the world over are unable to read. In a document published by EACEAP9 Eurydice (2011:3), averagely in European countries, not less than one in five 15-year-olds possess low reading skills. According to this report, this situation is “nothing less than a potential catastrophe for European societies; children who leave school unable to properly comprehend even basic written text are not only at a great risk of exclusion from labour market, but are also effectively excluded from further learning”. In the case of Ghana, most children in public schools especially in the rural areas cannot read. It therefore does not come as a surprise when Kraft (2003:3) laments that, “... the fundamental problem still facing Ghanaian schools remains basic literacy skills in English or Ghanaian Languages”. Lipson and Wixson (2004:2) in a report observed that, “[t]here is crisis of reading achievement in public schools in Ghana.” According to them, the outcome of the Criterion Referenced Test (CRT) of 2000 on reading achievements indicates that, “ fewer than 10% of the school children in primary level six are able to read with grade level mastery” (ibid:2). Also, Adusei (2006) made the same observation when he says that, a great number of Junior High School (JHS) pupils in rural areas are unable to read fluently. He adds that parents are to blame for the situation because “parents seldom spend money on literacy materials,

and even in the financially endowed homes, books hardly feature in the budget of the household” (Adusei, 2006:9). Similarly, the 2013 National Education Assessment (NEA) report published by Agyeman (2014) in the Daily Graphic revealed that, most pupils in basic schools cannot read with understanding whether it is English or any Ghanaian language. According to the report in which 19,458 primary three pupils and 17,447 primary six pupils were assessed, at least, 50 per cent of these pupils “could not pronounce a single English or Ghanaian word correctly”, 44 per cent could read but did not understand what they read, 4 per cent were able to read with some understanding while only 2 per cent of these pupils could read fluently with understanding. Sound literacy skills can therefore be seen as the basis of every child’s academic career since proficiency in reading is the means to all other areas of learning.

Even though a great number of children cannot read for several reasons; one of which is lack of teaching/learning materials, school compounds are sometimes flooded with litter in the form of toffee and biscuit wrappers, political party and religious flyers, old newspapers and many things containing some educative information or language input that could be used to teach reading in the classroom.

“Reading is the new civil right. A child who can read is a child who can dream about the future... and make that dream come true”.(First Lady Laura Bush at the Early Childhood Cognitive Summit, Little Rock, Arkansas, April 30, 2002).
<http://www.georgewbush-whitehouse.archives.gov>

In light of the above quotation, reading can be said to be a very important literacy skill that every individual must possess since one’s inability to read has serious

repercussions on the quality of his/her life. In the field of education, reading is used to define a student's academic success or failure.

According to a research report by Barbara Foreman, of the University of Texas, Houston Medical School, "88 per cent of students who were poor readers in first grade were poor readers in fourth grade" (National Institute of Child Health and Human Development [NICHD], 2000:9). To buttress the above point, Higgins et al (2000) cited by The Access Center, intimate that, "once students reach fourth grade, most of the information they need is given in textual format where the focus changes from learning to read, to reading to learn". It goes without saying therefore that, such students will find it difficult to interact with contents in the classroom. Research has shown that, there is a strong connection between reading, speaking and writing and as a result, it is difficult for children who cannot read to be efficient in writing.

As stated earlier, reading, and for that matter literacy, is a very important skill in the life of every individual and the nation as a whole since the economic base and the international standing of a nation is dependent on the literacy status of its people, regardless of its natural resources. This may be the reason why Jakalia, (2002:2) states that, "... third world countries may have to find their strategies for accelerating literacy if they must catch up with the rest of the world". In the same vein, Elley (2001:1) cited by Jakalia (2002:2) intimates that:

...there is a lot in common in the plight of children in the third world, whatever the continent they live in. Their literacy levels are low, their horizons are limited and their opportunities for catching up to the rest of the world in terms of satisfying employment and political choices in this generation are virtually zero.

I will narrow this argument to the Ghanaian context where pupils in rural schools with low literacy levels as a result of lack of teaching/learning materials are left to compete with their counterparts in endowed schools in the urban areas, where they have all the teaching/learning materials in literate rich environments.

It is important at this point to state that several policy makers share this concern, but the question is: what do we do about this concern? The most obvious answer is, to turn the concern into real action. Several means may be employed to help children to read and also achieve widespread literacy but environmental print is the easiest means to achieve this.

The term environmental print is used to refer to any print material found in the environment. According to Harris & Hodges (1995:73), environmental print is “print and other graphic symbols, in addition to books, that are found in the physical environment, as street signs, billboards, television commercials, building signs...” Similarly, Prior and Gerard (2004:4) say “environmental print can include product labels, logos, road signs, billboards, and store signs”. For Heilman et al (1994), environmental print is:

...any print in the environment that is encountered in a meaningful setting. These include such items as posters, greeting cards, cereal boxes, bumper stickers, name of toys and milk cartons. Others are functional prints such as telephone books, newspapers, catalogs, television guides, lists of menu and any print around us (Heilman et al. 1994:62).

In addition to the above, Jakalia (2002:7) defines environmental print as “print that occurs in real life contexts such as product labels, street names and signs”.

Reading, on the other hand according to Cline et al (2006:2), is decoding and understanding text for particular reader purposes. Readers decode written text by translating text to speech, and translating directly to meaning. To understand written text, readers engage in constructive processes to make text meaningful, which is the end goal or product the more it is practised.

Also, the Macmillan Dictionary defines reading as “The process of recognizing written or printed words and understanding their meaning”. (<http://www.macmillandictionary.com/dictionary/british/reading>).

Even though environmental prints form about thirty to thirty-five percent (30% - 35%) of solid waste, there is a constant complaint by teachers about the lack of print materials/teaching and learning materials to help children read or develop their literacy. Besides, parents/guardians who are supposed to provide books for their children are unable to buy the best literacy materials in the market (Jakalia 2002:3). Learners’ participation in the language classroom is therefore very minimal due to inadequate or total absence of teaching/learning materials. However, environmental prints can comfortably and conveniently be used for the teaching and learning of reading in the classroom.

In Ghana, environmental prints are seen almost everywhere in the form of obituary posters, political party posters and billboards, church crusade posters, musical and movie posters, product billboards, writings on vehicles and buildings, and many more. The fact that environmental prints are seen in every corner of our environment and their inexpensive nature gives one the consoling feeling that the problem of inadequate teaching/learning materials in the language classroom can be solved, the reason being that, language teachers and parents/guardians do not need

much money and in some cases, they do not need money at all to acquire these prints since they can find them in their work places, kitchens, bathrooms, sitting rooms and surroundings. This research will be based in a Junior High School, specifically Wurishie Community Al-Badal Junior High School in Tamale, where some classes will be chosen to test how environmental prints can be used to teach reading/literacy in the classroom.

1.1 Syllabus Requirements for Reading

The Junior High School (JHS) syllabus by the Curriculum Research Development Division (CRDD) of the Ministry of Education requires that at the end of the JHS course, the pupil will be able to:

1. Read fluently with appropriate voice modulation
2. Read sense groups/phrases at a time
3. Read given texts within given time limits for specific and general information
4. Read and recall simple facts and ideas
5. Answer inferential and derivative questions
6. Read silently with understanding
7. Show the literary effect a text has on the reader (P 19-24).

1.2 Statement of the Problem

“While large amounts of language inputs inundate our environment, there are constant complaints about the lack of print materials to help children in their literacy development” (Goodman 2001) cited by Jakalia (2002:1).

There is a constant complaint by both language teachers and learners of inadequate teaching and learning materials in the classroom, and most parents are unable to afford the best literacy materials on the market. Teachers as well as learners, especially in the rural areas, hardly have materials for their lessons due to the unequal or otherwise non-uniformity in the supply of teaching and learning materials by the Ministry of Education and the Ghana Education Service (GES) in particular, to schools in the country as a result of their meager budget. Out of the eight communities within the Tamale metropolis that I visited, namely; Datoyili, Sheshigu, Kasalgu, Vittin, Kakpagyili, Fuo, Taha and Dungu, none of their basic schools had enough textbooks for pupils. Taha JHS in particular, had no single textbook. Even some basic schools within the Tamale town did not have enough textbooks/reading materials for pupils.

It is important at this point to mention that the few teaching and learning materials supplied by the Ghana Education Service (GES) to schools are limited to classroom readers “which in reality are inadequate for providing the appropriate language inputs learners need” (Jakalia 2002:1).

This lack of teaching and learning materials in the classroom has made the participation of learners in lessons very minimal and difficult. In addition, the lack of teaching and learning materials in the language classroom has become a setback on the literacy development of learners and this could lead to poor reading and writing skills as well as poor spoken/oral language expression among learners. The provision of teaching and learning materials in the language classroom will increase learning during and after lessons.

An interaction with pupils of Wurishie Community Al-Badal Junior High School and Seventh Day Adventist (SDA) primary school both in Tamale during the 2013, 6th March parade and even my 4year old nephew revealed that, they can play with everything they find in the environment including environmental prints. They did this by trying to read these prints on their own or with the help of adults which can in the end have a positive effect on their literacy development. For example, my nephew usually tries to read and also spell the name of every product label including the brand of toothpaste or toilet soap which we use at home. From the above example, it is evident that children are usually active users of environmental prints and therefore language teachers can convert environmental prints for literacy needs of learners since the environment is rich in print. What this also means is that the teacher must move away from the traditional practice of depending solely on classroom readers to using environmental prints to complement the readers in teaching since, as Goodson (2004:4) notes:

The 21st Century has begun by serving notice that teaching of reading and writing will change, that traditional practices and assumptions must be re-examined, and that higher levels of literacy performance must be expected from students.

For the above to be achieved, environmental prints must be innovatively used by teachers and learners to acquire “higher levels of literacy” (ibid: 4).

1.3 Examiners’ Report of Students’ Performance in English Language

The West African Examinations Council (WAEC) complains bitterly from time to time about the poor use of English language by students. A clear example of

this is seen in the Education Commission Report of 1996 after candidates wrote the Basic Education Certificate Examination (BECE) in 1991. In that report, WAEC laments that, “While poor English has always been the bane of many candidates, the multitude of candidates who this year wrote virtually incomprehensible language was stunning. Non-English is assuming epidemic proportions” (Education Commission Report 1996:57). The Commission commented on the poor performance of candidates who sat for examinations during that period by indicating that, “... with grave concern the fact that at the end of basic education, the level of language and communication skills of final year students is poor, and suggests that serious efforts be made to intervene in order to improve the situation” (ibid: 57).

Again, commenting on the performance of candidates who sat for the BECE in 2001, 2002 and 2003, the Chief Examiners still stressed on the use of poor English by candidates. According to them, very few candidates performed exceptionally “but generally, performance showed no spectacular improvement over the previous year’s” (Chief Examiners’ Report, 2003:1-2). They therefore went ahead to suggest that teachers should intensify the teaching and learning of spelling and basic rules of grammar. In their opinion, if teachers impress upon their students to read novels, that will help improve their spelling skills.

The 2011 Chief Examiners’ report also talks about the candidates’ inability to express themselves clearly in the English language and the fact that, that had affected their performance in other subjects. The report called on teachers in all schools to use English language as the medium of instruction to enable candidates improve upon their command of the English language. This poor performance of students in the BECE as indicated by the Chief Examiners’ reports is part of the reasons I have

decided to embark on this research to find out if learners can be helped to improve on their learning especially reading, since poor spelling is one of the reasons they performed poorly.

1.4 Hypothesis

The use of environmental prints in teaching will have a positive effect on the reading abilities/literacy development of learners.

1.5 Aims of the Study

This research aims at drawing attention to the fact that in addition to the class readers used by learners in rural areas, environmental prints (discarded product wrappers and labels, newspapers billboard writings, etc.) can be used to teach literacy and encourage children in rural and deprived areas to develop their literacy and also their reading abilities at the basic level.

A lot of research work has been done on environmental prints but interestingly, most of these research works were carried out in different locations other than Ghana. It is however imperative to note that few researchers in Ghana have carried out researches to create awareness on the use environmental prints to teach English as well as on early literacy acquisition. This work, which proposes to use environmental prints to teach reading in JHS 1, will add to the researches that have already been done in this area.

1.6 Objectives of the Study

The specific objectives of the study are to:

- a. Show that environmental prints are appropriate and useful resources/ teaching and learning materials for the teaching and learning of reading in JHS 1
- b. Assess the effectiveness of the use of environmental prints on pupils' reading behaviour in particular and other literacy skills like writing and speaking.

1.7 Justification and Relevance of the Study

The idea of using environmental prints to teach children is not common even though some researchers within and outside the country have written about it.

- a. This work, if completed, would contribute to the teaching of English language in Ghana.
- b. The outcome of the study will serve as a reference material for language teachers and policy makers on the implications of using environmental prints to teach reading, and for that matter, literacy.
- c. This work may also serve as a source of reference for future researchers who may want to carry out similar researches.

1.8 Limitations

For one to be able to make an objective and conclusive statement about the fact that environmental prints can be used to teach reading/literacy at the JHS level, will require a comprehensive research on the topic covering all schools in the country since that will be the only ideal way to get a clear picture of the situation.

Due to limited resources and time constraints however, the researcher limited the study to one school in the Tamale Metropolis and hoped that the picture that emerged would not be any different from schools in other parts of the country.

1.9 Research Questions

The study sought to answer the following research questions:

1. What are environmental prints?
2. What is reading?
3. How can environmental prints be used to teach reading/ literacy?
4. What are the benefits of the use of environmental prints to the teacher, the learner and the parent?
5. What strategies can teachers employ to bring real-world environmental prints into the language classroom?
6. What problems are likely to be encountered in the use of environmental prints as teaching/learning materials?

1.10 In Defense of the Choice of School and Class for the Study

Wurishie Community Al-Badal Junior High School was chosen for the purpose of this study. Though located within the Tamale metropolis, Wurishie is a rural area that has come to see development because of its closeness to the Tamale Polytechnic. Therefore, Wurishie can be said to be a peri-urban area. The selection of this school was informed by a purposive sampling approach since I had prior knowledge of the features of the school and the facilities it has which actually met the requirement of the type of school I needed to carry out this research in - a rural school which lacks teaching/learning materials. For instance, the form one class with 66 pupils (form 1A 33 pupils and form 1B 33 pupils) has only seven English Language textbooks and this makes effective teaching and learning stressful because more than five pupils crowd around a textbook during English lessons. The school has

a small library with a few out-dated books that were donated by some Non-Governmental Organizations (NGOs). Because the books in the library serve no use for pupils, they do not visit the library and as a result, teachers have turned the library into a staff common room annex.

Wurishie Community Al-Badal JHS is a less endowed school and can also be said to represent most schools in Ghana since for example, their classroom furniture and blackboard are similar to those found in other public schools across the country.

The JHS 1 class on the other hand was chosen for this study because the problem for this study is that, most pupils in rural areas even at the end of class six cannot read. The JHS 1 class was therefore seen as ideal for the study because the pupils just graduated from class six and one would expect that they would be able to read and write without much difficulty. Again, I chose this class because most of the research works on environmental prints that I came across, used learners below this level.

1.11 Data and Research Procedure

This study is mainly an experimental research that will also make use of the qualitative and quantitative approach techniques; therefore data analysis is going to be a narration and graphical presentation of the outcome of the experiment. I will use two groups of students for this study: the experimental group, using environmental prints during their English lessons and the control group, not using environmental prints during their lessons as Charles (1988) suggests that:

... at least two groups are involved in an experimental study: a control group and an experimental. The two groups contain equal numbers of

individuals and are otherwise as similar as possible. No treatment is given to the control group, but in the experimental group an independent variable (cause) is manipulated. Later, the group is examined to see if the changes occurred in the dependent variable (effect). In order to assess what has happened to the dependent variable, comparisons are made at the end of the study between the experimental and the control group (Charles: 1988:122).

According to Charles (1988:128), the subjects in an experimental research are expected to be “as similar as possible in all important ways”. I will therefore be discussing the similarities between the experimental and the control groups in subsequent sections of this work.

1.12 Organization of the Thesis

This work is in five chapters. Chapter one entails the introduction and background to the topic, statement of the problem, objectives of the study, justification and relevance of the study, hypothesis and research questions. Chapters two and three will comprise the review of related literature and methodology respectively. Chapter four will consist of analysis and findings while chapter five will look at the summary, conclusion and recommendations.

1.13 Definition of Terms

The following terms and definitions were used in the study:

- 1. Print-rich classroom/environment** - A print rich classroom is one in which many forms of prints including signs, labeled centers, wall stories, word

displays, labeled murals, bulletin boards, charts, poems and other printed materials are found. In other words, this is a classroom surrounded with books and prints.

2. **Functional prints:** These are prints that give children a reason to read by providing information they need. They are prints that serve real life purposes and assists with everyday activities by getting things done.
<http://www.lindaslearninglinks.com/enviroprt.hmt>
3. **ESL classroom:** English as Second Language classroom.
4. **Environmental print walks:** “This strategy involves taking a class for a walk in the neighborhood surrounding the school. Before leaving, the children are told to be on the lookout for environmental print (EP). As examples of EP are encountered during the walk, they are pointed out by the teacher (or by the children). After the children return to the classroom, they draw pictures of the print they could read on the walk.” (Source: Reading Between the Lines 1994, cited by James Christie et al 1997:125).
5. **Environmental print folders:** These are selected pieces of environmental print folders attached to file folders to make environmental print books (Anderson & Mark 1985 cited by James Christie et al 1997:125).
6. **Logos:** Bold colourful symbols featuring printed words in design format that are used to advertise products.
7. **Sight Word:** a word memorized or recognized as a whole, rather than by its parts blended together to form the whole.
8. **Junior High School:** Basic Education in Ghana comprises six years primary education and three years Junior High School education. The Junior High

School serves as the entry stage to the Senior High School, Agricultural, and Vocational/Technical Education.

9. Public Basic Schools: These are schools owned by the state; they start from primary to Junior High schools.

10. Rural Schools: These are schools with very limited infrastructure and poor conditions. They are usually located outside cities and towns.

11. Peri-Urban Communities: These are communities that are non-urban but are close to towns and cities and as a result, urban development extends into them.

1.14 Summary

This introductory chapter has discussed the background to the study, the statement of the problem, and the objectives of the study. It has also described the rationale or justification for the study and its relevance. The definitions of some important terms have also been provided. .

CHAPTER TWO

THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

2.0 Introduction

Most schools in Ghana, especially in the rural areas lack teaching/learning materials. A visit to most of these schools reveals that their walls are bare and rough yet, children hide toffee and biscuit wrappers with some language input in their school bags because they feel these are not allowed in the classroom. It is worth mentioning that most head teachers' offices are stocked with piles of old books that are out of use and are being eaten by rats and termites yet, children are left in the classroom without reading materials (Jakalia 2002:3). Teachers, instead of salvaging and using these materials to make their classrooms inviting to learners, rather complain that they do not have teaching/learning materials. The government's recent initiative to promote Free Universal Basic Education has worsened the situation since school enrolment has increased without enough teaching/learning materials to support literacy development. It is therefore not surprising that very few children in rural public schools can read or even write at the end of class six.

Given the lack of teaching/learning materials in rural schools in Ghana, pragmatic steps need to be taken to address the literacy development of learners in those schools. Environmental prints, which are cheap, attractive and inundate our environment, can be used to teach children in these schools to read. Research by scholars such as Wepner 1985, Reutzler et al 2003 among others have revealed that environmental prints play a very important role in early literacy acquisition therefore, there is the need for all stakeholders in education - Ghana Education Service (GES),

teachers and parents to establish some school-home-community collaboration so that useful environmental prints can be salvaged for children's language and literacy development. If parents and teachers are educated on the usefulness of environmental prints in literacy development especially in reading, they will go all out to give the needed literacy support to learners both at home and at school, using environmental prints.

Research on environmental print dates back to the 1980s when it gained positive attention but became a dormant area of research in the 1990s after some studies challenged the benefits of environmental prints and their relevance to reading. In recent times, the topic has become an area of interest in research with researchers like Christie, Enz, & Vukelich (2002); Christie, Enz, Gerald, Han & Prior (2003); Gerard & Prior (2004); Kirkland, Aldridge & Kuby (2007) and others. In Ghana, not much research has been carried out on the subject. However, Jakalia (2002) and Bediako (2008) are among the few known researchers on this subject. That notwithstanding, literature on the limited work done so far will be reviewed.

2.1 Theoretical Framework

The theories that underlie this research are constructivism by Piaget (1970) and contextualism by Vygotsky (1978). The theory of constructivism states that, "...learning is an active, contextualized process of constructing knowledge rather than acquiring it. Knowledge is constructed based on personal experiences and hypotheses of the environment". <http://www.learning.theories.com/constructivism>.

What this theory seeks to say is that, we as individuals are able to construct our own knowledge as a result of our interaction with the environment. According to

Dimitriadis & Kamberelis (2006:170), “Piaget grounded his developmental learning in the individual learner and positioned children as active, intelligent, creative constructors of their own knowledge structures”.

In addition to the above, Kirkland et al (2007:2) point out that, “children construct knowledge from the inside out by interacting with their environment”. This, they say is “true for literacy in general and for environmental print more specifically” (ibid: 2).

From the discussion on the theory of constructivism, the role of the English as a Second Language (ESL) teacher is to provide a rich environment filled with very interesting things for language learners to explore and also become active constructors of their own knowledge, using their own experiences in the environment.

The theory of developmental contextualism by Vygotsky (1978) on the other hand, looks at the child’s construction of knowledge from a contextual view point. The theory explains how the change in social interactions between the learner and the tutor “where the tutor could be a parent, teacher, or more knowledgeable child” could lead to proficiency in the learner (Mason & Sinba 1992:6). It is imperative to state that, the “Mozart” of psychology, though a contextualist, according to Kirkland et al (2007:2) “recognized the importance of children’s construction of knowledge”. They further posit that, “Vygotsky created a theory that allowed for both the natural line that emerges from within the child and the social-historical line that influences the child from without” (ibid: 2). This idea is seen in his “zone of proximal development”. According to Vygotsky, every child has a zone of proximal development, which in his own words is: ...the distance between the actual developmental level as determined by independent problem solving abilities and the level of potential development as

determined through problem solving under adult guidance or in collaboration with more capable peers... (Vygotsky 1978:86).

He further opined that, “ what is in the zone of proximal development today will be in the actual developmental level tomorrow - that is, what the child can do with assistance today she will be able to do by herself tomorrow” (ibid:87). The implication of this is that, the teacher must take into consideration, the learner’s zone of proximal development by providing the type of instruction which the learner can be able to execute with or without any help. Vygotsky believes that, social interaction enables students to learn from each other and from adults. This belief of Vygotsky is reiterated by Fagarty (1999:77) when he says that, “Vygotsky’s theory suggests that we learn first through person-to-person interaction and then individually through an interaction process that leads to deep understanding”. Still in line with Vygotsky’s belief, Kirkland et al (2007:2) are of the view that, “since literacy is specific to each language and culture, a young child needs assistance in making sense of environmental print from a more able peer or teacher”.

In addition to the above, Vygotsky (1978) also believes that when an adult or more skilled peer gives guided interactions to the learner, it could facilitate a higher level of thinking within the zone.

Mercer (1994:102) asserts that, the zone of proximal development has two educational implications. The first implication according to him is that, in the course of performing any task, the limits of the zone of proximal development of the learner can be established through the quality or type of interventions provided by the teacher. When a teacher helps a learner to carry out an activity, he may in the process understand/learn the extent to which he can encourage the learner. The second

implication is that, the teacher needs to create challenging tasks for learners. Mercer points this out clearly by arguing that, “[a] task which is designed so that children are able to accomplish it without any assistance whatsoever is unlikely to stretch their intellectual capabilities” (ibid: 103). It is clear from the discussion so far that the idea of scaffolding is grounded in Vygotsky’s theory. Noytim (2006:74), citing Mitchell and Myles (2004) indicate that, neo-Vygotskian approaches developed the concept of scaffolding to cater for “other-regulations” in the zone of proximal development. Noytim explains “other regulations” as:

the process through which unskilled learners or novices learn by performing tasks under the guidance and assistance of more experienced persons or peers. This process is mediated through language; that is, learners learn how to do things through collaborative talk until finally they take over or ‘appropriate’ new knowledge and skills into their own consciousness

(Mitchell & Myles 2004 cited by Noytim 2006:74).

The implication of the above is that, the teacher has the responsibility of helping children learn independently.

According to Wood, Bruner & Ross (1976) cited by Alcantra (2011:13), “the term scaffolding is described as a support system for helping children achieve success on a task that would be too difficult for them to accomplish on their own”. To add to the above, Alcantra (2011:13-14) also says that, “the process of scaffolding involves the teacher determining the child’s zone of proximal development and using that as a resource in providing appropriate instructional strategies for the child to function cognitively”. What this means is that, teachers who have adequate knowledge about

the literacy process are needed to make learners successful and become competent in literacy. I believe that language teachers must be capable and well-prepared to guide learners in the language classroom by providing them the best opportunities to be able to build a solid literacy foundation.

2.2 A Review of Definitions of Environmental Print and Reading

Environmental print, according to Dodds (2011:10) can be defined as “product and restaurant logos, signs, billboards, advertising and functional prints (street signs, door signs, etc.) commonly found in the child’s environment.”

Coventry (2012:1) also defines environmental print as “words found all over the child’s environment. They are words printed everywhere that the child goes. Environmental print is found as brand names of products, names of eateries and stores, and even road signs.”

The two definitions above define environmental print alright but they have not touched or mentioned all the items that this study seeks to consider therefore, I consider them as inadequate.

Burns et al (1999) on the other hand, define environmental print as:

“words frequently seen around by children long before they enter school. Such prints that learners are likely to find in their environment are posters for various programmes, billboards, signboards and posters, television commercials, prints and other writings and labels on packages” (Burns et al 1999:40).

A study of the three definitions above reveals one common thing; that, environmental prints are prints found in the child’s environment. Burns et al (1999) covers every

aspect of print that this researcher intends to use, therefore, the concept of environmental print which is the focus of this work can be said to be adequately captured under this definition of environmental print. From the definitions above, one can comfortably say that Ghana, and for that matter, the Ghanaian environment is filled with print since these can be seen in every corner of the Ghanaian environment.

Reading, on the other hand according Goodman (1982:33-34), is “an active process in which the reader interacts with a written language text getting meaning from it by bringing meaning to it.”

Again, reading is the “process of looking at a series of written symbols and getting meaning from them”. <http://www.englishclub.com/reading/what.htm>

Also, the term reading is considered by Leipzig (2001:1) as “making meaning from print”. He adds that, reading requires the reader to “ identify the words in a print - a process called word recognition, construct an understanding from them - a process called comprehension, coordinate identifying words and making meaning so that reading is automatic and accurate - an achievement called fluency”.

Referring to the definitions above, I find that by Leipzig (2001) more suitable for the study since his definition covers areas like word recognition, comprehension and fluency.

2.3 A Background to the Use of Environmental Print

There is this general assumption by many that children learn to read when they begin school contrary to what most educators believe in, that, children develop literacy long before school going age. To buttress this fact, Anderson & Markle (1985) cited by Prior and Gerard (2004:4) state that, “children are aware of and read

print in the environment at a very young age and have a sight-word vocabulary of hundreds of words even by age 2". Stating this same fact, Prior (2009:9) intimates that, "at the time of entering kindergarten, most children have an extensive knowledge of written language because they see print everywhere in their environment". This therefore makes environmental prints a valuable material for the teaching of reading in the sense that, "logos used to advertise products with bold and colorful symbols featuring printed words in design formats, make an indelible impression upon children's memories, starting at a very young age" (Wepner 1985:633). Besides, most of these prints (product labels, newspapers, magazines etc) are labeled in English, making them the best alternative materials for teaching reading.

According to Honeyghan (2000:14), the reading of environmental print can make children develop a sense of learning to read; therefore they should be included in the curriculum. Usually in school, children are taught reading with materials that are extracted from textbooks. These classroom textbooks and basals according to Honeyghan,

present reading in a fragmented manner using selections divorced from student's immediate life experiences and with no relevance to their immediate needs. These selections serve no useful purpose in students' everyday lives and result in little authentic learning. If professional educators incorporate authentic environmental texts into their literacy curriculum, the students will engage in reading...

(Honeyghan 2000:14).

In addition, Honeyghan (2000) is of the view that, environmental print can "enrich and enhance the curriculum with information that is current, practical, relevant and

significant”. This will therefore make them appreciate the very purpose of reading. That apart, when students read environmental prints, they become aware of the diverse range of reading materials and come to know that reading “fulfills various purposes and functions in their lives.” (ibid: 14).

One can say that environmental prints have a far-reaching effect on children’s reading and even the teaching of literacy in the sense that, “even children from lower socio-economic homes that do not contain a variety of reading materials have considerable experience with prints and are exposed to it in their environment through television, billboards and stores” (Aldridge & Rust 1987, Anderson & Stokes, 1984 cited by Salewski, 1995:7).

Burns et al (1999:40) are of the view that the environment is full of print and the teacher must make use of this opportunity to link the home environment with that of the classroom. They see this possibility because according to them, children learn to read words they frequently see around them, such as advertisements, promotional materials and familiar products or popular cereals. They add that, teachers should use environmental prints because they are easy to acquire, an assertion I totally agree with since it is evident that environmental prints are found in every part of our environment and we get most of them for free. For example, when new products are launched, people are usually given the product brochures and flyers for free. Similarly, Watson (2013:46), citing Heffeman & Lewison (2003) says that, when a student reads environmental and functional print, it helps him become functionally literate. Watson adds that a student who is “functionally literate possesses the reading and writing knowledge and skills which enable him or her to navigate the print of his or her physical world”.

In the same vein, Reutzel et al (2003:16) reveal that, using environmental print to teach children to read may not only help them learn to read but may form a bridge from the known to the new that helps them more readily to involve the entire content of their knowledge of printed language and word analysis strategies to read in a variety of new situations and contexts.

What this means is that the teacher can always incorporate materials (environmental prints) that are of interest to students in his/her teaching to help teach them how to read and expand their knowledge and literacy skills. Honeyghan (2000:14) citing Heibert and Ham (1981) points out that, children who received instruction with environmental print showed a significant performance by learning more letter names and sounds than children who learned alphabet letters without using environmental print. For Giles & Tunks (2010:28), using environmental prints “improves models for children’s writing, helps them to internalize correct spelling of commonly used words and inspires their own writing through environmental printings”. This point made by Giles & Tunks cannot be contested since children are usually able to spell names of products that they frequently use in their homes.

There is an enormous amount of research on children and environmental print but few on the use of environmental print to teach reading. Mason (1980:203-237) studied four-year old children’s knowledge of letters and printed words. She tested the children’s knowledge by using some environmental print words. This was to find out whether these children had been reading. At the end of the study, Mason concluded that when parents guide their children to attend to signs, letters and labels and also

give them opportunities to read, spell and print words, they will be able to learn certain important elements of reading before they enter school.

McGee, Lomax and Head (1988:99-118) also conducted a study on 81 children aged between three (3) and six (6) years who they described as non-readers, novice word readers and expert readers in which they sought to make these children read environmental as well as functional print materials. The children in this study attended private preschool/elementary school. The materials used in the study were eight functional print items made up of a grocery list, a page from a telephone directory, a typed business letter, a page from a TV Guide, a book, the front page of a newspaper, a coupon, a map and then one environmental print item - the front of a "Ruffles" potato chip bag. The functional and environmental print items used in this study were meant to elicit reading responses from the children. According to these researchers, most of the children tried to read the potato chip bag with a few non-readers and novice readers attempting to read the functional print items. Those children classified as expert readers, read all the functional prints. The researchers concluded that, the older children in this study put in more effort and read more words correctly than the younger ones.

Again, Christie et al (2001) cited by Prior and Gerard (2004:7) conducted a study on preschool, pre-kindergarten and kindergarten children to assess "how their print awareness and letter-sound identification increased after being exposed to environmental print used as props in play centers and in games and learning activities". According to them, the children in all the three categories outscored the control groups in the identification of letters and sounds and were able to read environmental print in "varying decontextualized forms" (ibid:7). They concluded

that, the pre-kindergarten class made the greatest gain since their teacher interacted with them by using environmental prints.

In addition to the above, Christie et al (2003), cited by Prior and Gerard (2004:9), carried out an experimental study to find out what happens to letter and sound learning of English Language Learners (ELL) when environmental prints are incorporated into their alphabetic instructions. The treatment group which was made up of five morning kindergarten children, used environmental prints, books, puzzles, games and play props. The children in the experimental group were given two lessons each week by a teacher who used environmental print materials to draw their attention to specific letters and sound in these prints through the use of some activities and games. The control group on the other hand, made up of six afternoon kindergarten children, received no environmental print materials or activities since their lessons were “unmodified, typical ELL curriculum” (Prior & Gerard 2004:9). The results of the study revealed that, the experimental group showed a significant improvement in recognizing lowercase letters and decontextualized words. These researchers after the study hold the view that adult assistance can help a child recognize letters in environmental prints. They also believe that when teachers use environmental print as instructional material to teach letters and sounds, the print serves as reinforcement of what children are learning in school (ibid:9).

On the use of environmental prints to teach reading, Wepner (1985:633-639) carried out a study on twenty (20) preschool children from middle-class homes. The children were aged three and four years old. The study involved using environmental prints in a journal-like activity. Identical pretests and posttests on book-handling tasks, logo identification, attitude towards reading and word/sentence identification

were administered to the children. The study covered a period of eight weeks during which the children were put into two groups; control group and experimental group. The researcher saw each child for between 15-20 minutes once a week. The children in the control group received no instruction with environmental prints while those in the experimental group received instruction using environmental print items. During the treatment, each child in the experimental group made a logo book by pasting a new logo and a sentence about the logo as directed by the researcher in their books. They were also made to read these books. The three year old children were exposed to seven logos while the four year olds were exposed to twelve logos. Eight weeks after the treatment, the experimental group was able to identify a greater number of logos in the posttest better than the pretest. In the word/sentence identification task, the posttest results revealed that there was an increase in the number of items recognized. For example, the 3-year-olds were able to read four to six of the words presented to them and the four-year-olds read four out of five sentences as compared to the control group who could read none of these words or sentences.

The findings of the study led Wepner to conclude that with repeated exposure, “children should be able to recognize the unadorned words from the logo book in varied contexts” (Wepner, 1985:238). Again, children were able to achieve success in reading as a result of the use of logos. She also believed that the linking of familiar logos with people children find as important helped to develop children’s literacy. Finally, the researcher advocates that we start with what preschool children already know about environmental print and build on that as a strategy to teach reading.

The design of Wepner’s study is the one that involved the use of pretest and posttest with a control as well as an experimental group. The children were randomly

assigned to either of the groups which, is a good thing as it clears all doubts of bias. The fact that all the children came from middle-class families makes the generalization of the results impossible. That apart, the population cannot be said to be representative of preschoolers. Also, a sample size of 20 for such a research is small and it is not surprising when Salewski (1995:34) in a research expressed the opinion that, “the sample size of 20 and group sizes of five ... were too small to give the treatment any power”. Even though Wepner’s method had some limitations, they do not overshadow the advantages of the outcome of her research therefore, I will adapt this method for this research.

Bediako (2008), in her study of the role of environmental print on early literacy acquisition, sought to find out how environmental prints could be used to help learners “to read, write and speak English” (Bediako 2008:43). The research was conducted in Bosofour, in the Sekyere West District of the Ashanti Region of Ghana. The study covered a period of seven weeks in a primary three class with fifteen (15) pupils each in both the experimental and control groups. The experimental group was exposed to environmental prints while the control group was not. At the end of the study, the researcher concluded that the pupils in the experimental group “exhibited positive responses in their attempts at speaking and reading after a series of activities they were taken through using environmental prints” (ibid: 44). For the control group, the researcher indicated that their attempts at reading the sign, inscriptions and notices was not encouraging, compared to the experimental group.

This study, just like Wepner’s, used the pretest-posttest style with random sampling. However, the sample size of 30 with 15 children in each group was not large to give the work statistical power. Another limitation to this study is that, both

pretest and posttest for the experimental and control groups were done through observation and therefore the data were not analyzed either through raw scores or statistical analysis to determine the significance of the study. Again, mention was not made of what the control group was doing during the intervening period of the pretest and the posttest and what amount of time was spent in teaching each group.

The above discussion on the researches carried out on the use of environmental prints in literacy have revealed that children are aware of and have a fair knowledge about environmental prints even before they enter school, though some of these researchers have pointed to the fact that children find it difficult to recognize environmental print words when the visual and contextual cues are removed. That apart, most of the works I have cited carried out their studies in prekindergarten, kindergarten and elementary school contexts and concluded that the younger children faced some difficulties with the tasks on environmental prints. This may be attributed to the fact that these children lacked certain skills such as alphabetic awareness, phonological awareness and the structure of text. In addition, none of the works cited talked about using environmental print with children of eleven years and above and so this is what piqued my curiosity to carry out this research at the JHS level where the pupils are above ten years of age.

2.4 The Relationship between Environmental Print Reading and Conventional Reading

The role of environmental print reading in conventional reading has attracted a lot of debate. Whereas some researchers believe that environmental print reading is a forerunner to conventional/context free reading, others are very skeptical about the

role they play in conventional reading. For instance, (Goodman & Goodman,1979; Goodman & Altwerger,1981; Harste, Burke & Woodward,1982), reveal that children begin to read and are able to identify prints that they see frequently (for example, stop and exit signs, labels on milk and cereal cartons and names of fast-food restaurants) in their environment. According to them, once children are able to associate meaning with these prints, it enables them to learn the graphic system and this makes them become aware that print is different from non-print. They contend that, repeated exposure to familiar prints make children become familiar with them and can recognize these prints even outside their characteristic environment. For example, children can read “McDonalds” without its golden arches. In their opinion, what this means is that children are now ready to begin reading words in books with little or no contextual cues.

Other researchers like (Chall, 1979, Gough & Hillinger, 1980) hold an alternative view that, for children to be able to begin any reading, certain prerequisite skills (alphabet letter knowledge, phoneme segmentation skill among others) are needed to be able to do conventional reading. It is important to add that these prerequisite skills can only be acquired in the classroom.

Goodall (1984) found out in a study that, environmental print reading had no effect on conventional reading since children only “guessed” the labels that were shown to them. According to Goodall, “skills used in reading environmental print are not necessarily part of a hierarchy of word knowledge skills” (Goodall 1984:482).

Masonheimer, Drum & Ehri (1984) in a study to find out whether environmental print reading could lead children to context free/word reading, used 228 preschoolers aged between 2 and 5 years from different socio-economic and

ethnic backgrounds. The subjects for this study were all environmental print “experts” since they could all identify eight out of the ten environmental prints that were presented to them. The subjects were further classified as readers and pre-readers after they were made to identify primer level words. On each of the environmental print reading tasks, it was clear that the performance of the pre-readers differed from that of the readers. The first task they performed was the identification of environmental print items. In this task, the pre-readers were able to identify only words that were in full environmental context while the readers could identify the environmental print items that were presented to them in and out of context. A second task was given to the subjects to find out the extent to which they would attend to or ignore letters in familiar labels. They were asked to identify any alterations in the spellings of the labels that were presented to them. The pre-readers were unable to perform this task even when they were prompted by the experimenter who asked if there was any mistake. The pre-readers, instead of giving responses on the altered words, gave contextual readings of the labels. The readers on the other hand were able to detect all the altered letters and also detected changes when both labels were put side by side in the comparison task. The indication here is that, while pre-readers focus on context cues when identifying environmental print, readers focus on graphics as buttressed by Masonheimer et al (1984:267) that, “in identifying environmental print, readers focus on letters while pre-readers ignore the letters and “read” the environment”. By this research, Masonheimer et al are of the view that environmental print reading/identification alone does not lead a child to word/context free reading. The reason they assigned for this view is that, children are not pressed “to look beyond the cues which are easiest to discern and most obvious...no purpose is served by

attending to letters” (Masonheimer et al 1984:269). For them, children need to have a mastery of letters before they can learn words.

They add that, “ if youngsters are not familiar with alphabet letter patterns within words, printed words will not be distinguished as separate optic features and will not enter memory as symbols for meanings” (ibid:269).

The sample that was used for this study was representative of preschoolers’ population since the subjects attended different preschools. The sample sizes that were used for the two tasks were large enough to ensure statistical power. Data was analyzed using ANOVA and the results were discussed. The limitation to this study however, was the use of a small cell size of six subjects to represent the group of readers.

Although some researchers disagree with Masonheimer et al’s view that, exposing children to environmental print alone will not make them acquire reading skills, some support their view. Ehri (1987) is of the view that children have to master the letters of the alphabet before they can process graphic cues. She made this point when she indicated that, “a knowledge of letters provides children with the foundation for beginning to process graphic cues in printed words” (Ehri, 1987:13). She adds that children need to be given formal instruction on letter forms and sounds to enable them make a shift from relying on environmental cues to relying on the print itself. Similarly, Gately (2004:17) cautioned teachers who use environmental print to promote reading skills since according to him, “Learning logos does not automatically transfer to learning words”.

From the above, it is evident that, “learning to read depends completely on the ability to accurately and rapidly recognize the letters of the alphabet and to

discriminate each letter from the others” (Chard et al 2000:4). It also means that environmental print reading alone does not play any significant role in conventional reading but the fact that environmental prints form part of our environment and can be found in every corner of the environment in which children find themselves means that these could be used for instruction to help children learn to read.

2.5 Literacy-Rich Environment

The environment in which literacy takes place is very crucial. Children learn from what they see around them therefore, a literacy-rich environment can inspire them to learn. According to Bloch (1999:119), for language and literacy development, “the critical area to consider is the nature of the environments that young children explore”. Similarly, Goodman (1980) intimates that:

...just as a tree is influenced by the soil in which its roots grow, the maturing roots of literacy in the young child responds to the variety of nutrients in the soil - the written language environment (Goodman 1980:3).

What one learns from the above quotation is that, to be able to develop the learner’s reading ability as well as his literacy skills, the learner needs to be exposed to literacy-rich environments, since such environments have the power to impact on their ability to read, write and speak. Besides, such an environment offers learners the opportunity to make use of print and form literacy habits. It is therefore not surprising that Stokes, (2007: 5) is of the view that, “young learners should be given a literate environment”. According to him, the environment is “a place where teachers and students (pupils) should engage in literate social practices for authentic purposes, in

order to continue the powerful informal learning that underlies language acquisitions and home literacy learning” (ibid: 5). In the same vein, Bediako (2008) says that:

when children are exposed to a literacy-rich environment and receive developmentally appropriate literacy instruction in the classroom, it can help in adding more explicit instructional value by discussing the differences in the features of labels and other things on the chalkboard (Bebiako 2008:15).

A literacy-rich environment is one that can be described as a setting that helps or stimulates learners to participate in language and literacy activities by enabling them to understand the functions of both oral as well as written language. The Centre for Early Literacy Learning (CELL) refers to a literacy-rich environment as one “context in which children engage in interest-based everyday literacy activities with responsive adults”. Such environments, the CELL adds, are usually very “interesting and offer a variety of literacy materials” which are inviting, comfortable, and are easily accessible for all children.

(http://www.earlyliteracylearning.org/ta_pdf/selfguided_module_I_RE.pdf).

In addition, Katims (1994) and Neuman (2004) cited by Keefe et al (2010:166) intimate that, literacy-rich environments “display text, pictures, and graphics that are meaningful to the children in that setting”. From the description of literacy-rich environments, it is evident that these environments bear certain characteristics that language teachers must consider when they are creating these environments.

According to Tyson (2013), the elements of a literacy-rich environment include the following:

- Classroom libraries that include a variety of genres and text types
- Content posters
- Anchor charts (teacher-made and co-created with students)
- Word walls
- Literacy workstations
- Writing centers
- Labels
- Computers
- Display of student work
- Display of books and information
- Bulletin boards and
- Plenty of opportunity to read, write and speak.

Literacy-rich environments are important in the teaching of reading because they offer recurring opportunities for children to interact with books and other engaging printed materials individually and in group play.

www.moodle.oakland.k12.mi.us/os/pluginfile.php/61795/mod_resource/center.

This kind of environment also provides students with opportunities “to engage with and see adults interact with print, allowing students to build their skills in understanding the conventions, purposes, and functions of prints.”

<http://www.umdive.memphis.edu/imeglur/public/RDNG4240Fall2012/ARTICLES/LiteracyRichenvironments.pdf>

That apart, “a literacy-rich environment not only supports the standards set by the common core, but also provides a setting that encourages and supports speaking,

listening, reading and writing in a variety of authentic ways - through print and digital media” (Tyson 2013:1)

In addition, a literacy-rich environment helps children learn how to attend to language and apply this knowledge to literacy situations by interacting with others who model language functions (Gunn et al 1995:11).

Furthermore, children in literacy-rich environments “observe adults engaging in a variety of print-related tasks, such as making grocery lists, paying bills, reading the newspaper, using a telephone book, surveying the TV guide, reading a menu, talking about something they read, or using labels and signs to get information (Goodman, 1984; Heath 1983, Morrow 1997; Sulzby et al 1989; Teale 1986 cited by McGinty et al 2013: 84).

It is important to state that when children see adults “immersed” in such literacy activities, they become aware of the importance and utility of written language (Goodman 1984 cited by McGinty et al 2013:84).

Goodman (1985:1) observed that:

Children growing up in literate societies, surrounded by the printed word, begin to read and write long before they start school. They become aware of many of the uses of written language, they develop a sense of the written forms, and they begin to make sense of print and experiment with communication through writing (Goodman, 1985:1).

Several studies have been carried out to support the relevance of literacy-rich environments to reading. One of such studies was carried out by Neuman and Celano (2004), cited in Neuman (2004: 89-91) to buttress the fact that when children interact with literacy-rich environments, it facilitates their ability to read and the development

of their literacy skills. These researchers in their study tested the intelligence, vocabulary and specific reading skills of over four thousand preschool children who lived in very poor neighborhoods. After the test, it was realized that forty-three of these children had reading skills that surpassed what children of their ages were expected to have. Neuman & Celano therefore concluded that these “children’s ability to read was related to skills development, not aptitude” (Neuman & Celano 2004:90). They further revealed that, these early readers had regularly been exposed to print-rich environments with adult assistance which actually helped in the development of their skills (ibid: 90). The outcome of this research is not different from what Keefe et al (2010) believe about literacy-rich environments: that, “children’s literacy knowledge and understandings emerge as they have meaningful and sustained interactions within literacy-rich environments with other individuals who are what Kluth and Chandler-Olcott (2008) call “literate models” (Kluth & Chandler-Olcott 2008 cited by Keefe et al 2010:166).

Moxley & Warash (1990-1991) cited by Warash et al (1999:52) suggested that for early literacy programmes to be effective, suitable environments must be provided “for the child who reads labels on products as well as the child who shows little apparent interest in print” because children are different in the way they learn to read and write.

Based on the above beliefs on the importance of a literacy-rich environment in reading and literacy development, it is important that language teachers consider the environment in which language learning takes place.

2.6 Using Environmental Prints at Home

In the words of Hall (1987), “literacy development is a continuous process that begins early in life, long before young children enter school” (Hall 1987, cited by Warash et al 1999:53); therefore, a home environment that provides the child with opportunities to learn to read and develop literacy is very important since that (home environment) can have either positive or negative impact on the child’s ability to read. According to August & Shanahan (2006:7), learners’ performance in literacy is more likely to be a result of home... and literacy learning opportunities”. Children usually enter school with individual differences that translate into differences in reading and other areas of academic achievement. These differences occur as a result of the home literacy environment that parents provide for their children. For children to be able to read, they must be presented with opportunities to have access to lots of prints and books. Plenty supply of children’s books at home can lead children to have a positive attitude towards reading.

However, Christie et al (1997:67) add that, “differences do occur in children’s exposure to books and other forms of reading materials”. According to them, a descriptive study of 24 low-income preschoolers by Teale (1986b) revealed that, “while some of the homes had ample supplies of children’s books, other homes contained none”. On the other hand, Taylor & Dorsey-Gains (1988) cited by Christie et al (1997:67) are of the view that, the fact that the homes of some low-income preschoolers contained no children’s books does not mean all children who come from low-income families “lack exposure to reading materials at home” (ibid: 67). This argument is true because there are some low-income parents who go out of their means to provide reading materials at home for their children.

Christie et al (1997:52) believe that children who live in homes/cultures that value literacy begin learning to read and write at a very early age. This is because “children observe the print that surrounds them and watch their parents and others use reading and writing to get things done in daily life” (ibid: 53). According to Goodman (1984) cited by McGinty (2013:84), “children in such homes may model these adults’ behaviors by pretending to read to adults or to themselves, pretending to write a letter...” When this happens, they analyze and construct their own rules and concepts about literacy and try them out in social situations (Christie et al 1997:53).

In addition to the above, Smith (1988) cited by Christie et al (1997:67) is of the view that adults, parents and older siblings should demonstrate literacy behavior for children to see. According to Smith, it is important that children observe their parents, older siblings and adults using literacy daily since when children see members of their families use print for various purposes such as writing shopping lists, paying bills, looking up programmes in the TV Guide, and writing notes to each other, they begin to learn about the practical uses of written language and understand why reading and writing are activities worth doing (ibid: 67).

Also, children need to have parents who are supportive of their attempts to learn to read. It is important to mention though that, these parents may not directly teach children how to read and write, rather, they support the literacy growth of their children by answering their questions about print, “pointing out letters and words in the environment, reading story books frequently” visiting the local library regularly, granting children the opportunity to have a variety of experiences such as trips to parks, stores, museums and suggesting that a child undertakes functional literacy

activities such as writing a letter to the grandma or making a shopping list (Clark 1976, Durking 1966 & Marrow 1983, cited by Christie et al 1997:67-68).

In the same vein, Bediako (2008:28) is of the view that, “family literacy provides children with many opportunities for learning the basic features of oral and written language”. According to her, “when parents read to children, or tell stories, sing songs, share family histories, say prayers and so forth, they are providing opportunities for children to experience the pleasure of powerful text...” Unfortunately, parents have become so busy that they hardly have time to read to their children.

Again, Teal (1994:97) reveals that children who come from homes where there are environmental prints somehow find themselves reading and writing each day. From this revelation, one can see the importance of environmental prints since they provide learners with varied opportunities to learn reading and writing.

From the above, it is clear that for children to be able to engage in any literate activities at home will depend on access to books and writing materials. It is obvious therefore that, children who have no access to these materials at home are at a disadvantage. Home literacy experience is very important since children are exposed to an environment rich in literacy activities that are beneficial to literacy (reading) and language development. It is in light of this that parents have been called upon to read to their children and also expose them to literacy activities. Mason (1980:203) buttresses this idea by saying that, “children who are guided by parents to attend to letters, signs and labels and are given opportunities to read, spell and print words, learn the essential rudiments of reading, even before going to kindergarten”.

2.7 Using Environmental Print in the Classroom

Environmental prints are materials that can be used in the teaching and learning of English in the classroom; however, very few studies have been carried out to investigate the use of environmental prints as tools for teaching reading/writing in the classroom. The learner's environment is rich in print; therefore learners must benefit from that. According to Kuby (1999:5), several studies have revealed that, "children see themselves as readers and writers and actively seek out print in the environment when environmental print is part of the curriculum".

Based on this revelation, my view is that it is imperative to integrate functional reading and writing into the classroom curriculum since "the child is viewed as a purposeful user of print, no matter what his/her level of functioning" (Warash et al 1999:57). Once the only way the child can get information is to read, he/she will be compelled to read.

The school/classroom environment should be one that helps learners view literacy in a natural way. For example, "the educator can use environmental print in the classroom, such as a coke can to point out letters and words. They can be expanded to include, the printed logo in stories or in some other meaningful context" (Kuby, 1999:5). It is important to add that the nature of the classroom environment is very crucial to reading/literacy no matter the instructional materials one chooses to use. It is not surprising that Reutzel 1996 laments that, for several years, teachers have paid little attention to what literacy environment of the classroom can do to children's learning. He emphasizes the above by saying that:

[a] supportive and inviting reading classroom is integral to achieving a balanced and successful reading instructional programme. Often, when

planning effective literacy classroom, teachers become so involved in managing children, materials, time and space, they lose sight of the fact that what goes on within the classroom environment will in large measure affect the value children attach to literacy and instruction (Reutzel 1996:322-404).

What this means is that the environment in which we teach children must be one that promotes language growth. We must therefore endeavor to display prints everywhere in the language classroom where the eye can reach and see - floors, walls, ceiling and every corner.

According to Harste et al (1994:1238), “classrooms are not here to silence children but to hear from them”. Children in literacy-rich classrooms will learn and practise to read since such classrooms with a variety of print encourage reading. This is emphasized by Searfoss and Readence (1994:17) when they state that, “in order to foster a love for reading, classrooms should provide environment that says, it is safe to read here, there is exciting reading here, so dive in and read”. From this view point of Searfoss and Readence, it will not be wrong to say that the classroom environment is usually neglected and this goes unnoticed in most cases.

Snow et al (1991), conducted a study to identify the school factors that affected the literacy achievement of elementary school children who came from low-income families. The study revealed that, “classrooms that provided access to challenging and stimulating literacy materials including basals, workbooks, dictionaries and frequent visits to the library were linked to measures of vocabulary growth”. Besides, children who were exposed to “longer forms of writing showed

more substantial gain in vocabulary and word recognition than students who did not” (Snow et al 1991 cited by Hoffman et al 2004: 306).

As stated earlier, children perceive themselves as readers and writers and so teachers can take advantage of this perception by engaging children in activities that will make them actively seek and bring environmental print to the classroom. For example, teachers can task children to produce an environmental print folder where some selected pieces of environmental prints are attached to a file to make a book.

Similarly, Jakalia (2002:6) reveals that children themselves contribute largely to the availability of print as “they write on every available space and with any sharp instrument that can make a mark”. He feels that language teachers can make use of this tendency in the classroom since its proper use may bring about free expression and creativity in students. To add to this revelation by Jakalia (2002), children are eager to read, and this is seen in their attempts to read prints and especially labels that they come across. The important question that is left unattended to is, who is responsible for bringing environmental prints to the classroom? A perfect response to this question is espoused by Giles et al (2010:24) when they cite Heath (1983) who expresses the view that children should collect most of the environmental print they will use at school since “contributing their own examples of environmental print to create class books or displays also strengthens the home-school connection.”

Also, Patterson (1991:37-38) is of the view that newspaper articles can be used to teach English language. He goes on to argue the fact that, not only are newspaper articles a tool for students to improve upon their English language but that, they are cheap and readily available. Patterson intimates that newspaper articles improve the reading as well as the speaking skills of students. Students’ speaking

skills are improved when they discuss the issues in these articles and their listening skills are improved through listening comprehension. Their sound discrimination is also improved through dictation while their knowledge of punctuation is improved through the correction of errors by their peers and the teacher. He adds that students writing can also be improved when newspaper articles are used for summary writing. It is worth mentioning that the above mentioned are not limited to newspaper articles only but to other prints that can be found in the environment; magazines, labels and many more.

Stroller (1994:2-5) says that a great number of English language news magazines are becoming available worldwide and he thinks that teachers can make use of these news magazines by bringing them into their reading classrooms.

Finally, in the view of Christie et al (1994:123), a print- rich classroom environment is a key component of an effective language and literacy learning programme. When children are surrounded with books and other literacy materials, it stimulates their interest in reading and literacy. “For children with limited home literacy experiences, print-rich classrooms provide opportunities to learn about the function and structure of written language” (ibid: 123).

2.8 Summary

This chapter looked at some definitions of environmental prints as well as reading. It equally discussed the relationship between environmental print reading and conventional reading and the relevance of a literacy-rich environment to reading, both at home and in the classroom. In addition, the chapter sought to review related literature on environmental print by discussing the views of some educators and

researchers on how environmental prints can be used to teach reading/literacy to learners in the language classroom.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discusses the various methods used for this study. It will also explain and justify the appropriateness of these methods. Various intervention techniques were employed through copious use of environmental prints in the classroom with the experimental group. Comparisons were made between the subjects in the experimental group and the control group at the end of the study to determine the effectiveness or otherwise of the intervention.

3.1 Profile of the Study Area

The study was conducted in Tamale, the Northern Regional Capital which lies about four hundred miles to the north of Accra, the national capital of Ghana. Tamale, which used to be a municipality, has grown into a metropolis thus, making it serve as both the regional capital and at the same time the metropolitan capital. The area is located in the center of the Northern Region and because of that, Ministries, Departments and Agencies (MDAs) and other organizations have their offices in Tamale. With a total population of 444,074, (The Composite Budget of the Tamale Metropolitan Assembly 2012:11) and an estimated land size of 550 square kilometers, the metropolis shares common boundaries with Sagnarigu to the north, Mion to the east, Tolong to the west, Central and West Gonja districts to the south. (The Composite Budget of the Tamale Metropolitan Assembly 2013:6). The metropolis has

a total of 116 communities of which 12 are urban, 11 rural and 93 peri-urban communities (ibid: 18).

3.2 The Context

Wurishie Community Al-Badal Junior High School (JHS) where the research was carried out, was established in 2002 by an Arabian philanthropist, Al-Badal. The school is located about 500m north of the Tamale Polytechnic. With a pupil population of five (5) in 2002, the school now has a total population of two hundred and sixty six (266) pupils, nineteen (19) teachers out of which three teach English.

3.3 Sampling

Two groups of students; the control group and the experimental group were used for the study. The experimental group was arrived at through simple balloting where there was a fifty-fifty chance of any of the classes becoming either the control or experimental group. It was agreed by both classes that their monitors represent them in the balloting. We then had two papers on which were written; control group and experimental group respectively. Each class monitor was then asked to pick a paper and whichever a class monitor picked came to be known as the control or experimental group.

The three English teachers of the school were purposively selected for the study because they are the ones who teach English Language (reading) and so including them in the study was very necessary to provide at first-hand, information on how they teach reading and how they supplement for the few textbooks in the classroom.

3.4 Description of the Study Population

This study was conducted in the JHS 1 class. The class has a total population of sixty-six (66) pupils: thirty-three (33) in JHS 1A and thirty-three (33) in JHS 1B. The nature of this study is one that required the researcher to use a control group and an experimental group. Through simple balloting agreed on by both classes, JHS 1B was chosen as the experimental group and JHS 1A as the control group. Prior to the commencement of this research, not a single class in this school had any environmental print on their walls except for their timetables. The experimental group had a total of thirty-three (33) pupils comprising seventeen (17) males representing 51.5% and sixteen (16) females representing 48.5%, with their ages ranging between ten (10) and twenty-four (24) years .

The control group on the other hand was made up of eighteen (18) males, making up 54.5% and fifteen (15) females representing 45.5%. The youngest pupil in this group was aged ten (10) and the oldest was eighteen (18) years.

3.5 Socio-Economic Background of Subjects

The subjects in this study have mixed backgrounds. Most of them have illiterate parents and guardians who are predominantly subsistence farmers and have little or no value for education. A few of the children have parents who are either teachers or traders. Some children also live with guardians who have no source of income and so are compelled to hawk after school in order to be able to buy books and other necessities. The result of this on some of these children is that, they sleep in class and this has affected their educational development. It is however relevant to

state that, the parents of some of these children value education a lot since they were always willing to support their children.

3.6 Data Collection Procedure

The data for this research was gathered within a period of eight (8) weeks. I first of all sought permission from the headmistress of the school and this was granted. I was then introduced to the English teacher and the JHS one pupils by the headmistress, which paved the way for me to have easy access to the pupils.

3.7 Research Instruments

Two types of instruments were developed and used for the collection of data for this study. These are questionnaire and tests.

3.8 Intervention Objective

The objective of the intervention is to make learners in JHS one who are unable to read be able to improve upon their reading abilities in the English Language through the use of environmental prints.

3.8.1 Intervention Procedure

The following procedures were used:

- a) Pre-intervention test
- b) Intervention
- c) Post-intervention test

3.8.2 *Pre- Intervention Test (See Samples in Appendix A)*

A pre-intervention test was first of all conducted to find out the learners' abilities in the use of the English Language (particularly in reading). Learners were given a short paragraph from a passage in their English reader to read and this was scored on a ten (10) point scale by assessing language skills such as pronunciation, punctuation, speed and understanding. The time allotted for the reading test was ten (10) minutes. Also, since reading and writing are inseparable and in the words of Goodman (1984:81), "... reading and writing are actually unitary...", a written exercise was given to the subjects. They were each made to write a minimum of one hundred and fifty (150) words essay describing themselves. This essay was also scored on a 10 point scale taking into consideration; spelling, punctuation, and relevance of answer to the question, good expression and sentence construction among others and the length of the essay (number of words). This was done to prove right the fact that if one cannot read, then he can equally not write. The time allotted for this test was one (1) hour.

3.8.3 *Intervention (See Samples in Appendix B)*

The intervention started immediately after the pre-intervention test. This was done by exposing the subjects in the study (experimental group) to some environmental prints in the classroom. This was done by showing them pictures of some product billboards and labels which I took using a digital camera (samples of these can be seen in appendix B). The next day, I took the subjects in the experimental group on a walking field trip (an experimental print walk) around the school community and asked them to identify the various environmental prints they could

see. They were able to identify some billboard writings like “MTN, Voltic Natural Mineral Water, Airtel Frnz” and many more. The students, especially those who could read these prints could not hide their excitement for being able to explore their own community and given the chance to exhibit their reading ability. After this, I created the awareness that these prints could be used to learn how to read and therefore subjects should be on the lookout for prints in their environment.

In an earlier discussion, it was revealed that a literacy-rich environment is important for the teaching of reading and for literacy development; for this reason, a literacy-rich environment was created for the experimental group by decorating their classroom walls with different types of environmental prints such as cuttings from newspapers and news magazines, labels, empty toothpaste and cereal boxes, posters among others (see appendix B). A word wall was also created using sight words as well as some words that have been wrongly spelt on some billboard or sign posts. This was done so that pupils could consult the word wall for words they found it difficult to spell. Two weeks after creating the word wall, subjects were taken through the community to copy billboard and sign post writings. Once they got back to the classroom, we looked at what each subject had copied in order to identify “problem environmental prints”. For example, some copied words like “fone, fotocopy, beauty saloon, kidz world” and many more. I call them “problem environmental prints” because they either have wrong language usage or wrong spelling. Once these were identified, I cautioned subjects to take note of such prints and should not use such spellings in their writing. I also took them through the correct spellings of these words. Even though the aim of this research was to use environmental prints to teach reading, the other aspects of English such as grammar and spelling were not left out.

Learners were taken through dictation exercises to make sure they were able to spell and use the correct versions of the “problem environmental prints”. The essence of making them to copy the writings was also to improve upon their copying skills. Subjects were also made to bring interesting environmental prints from home and these were used to create an environmental print corner in the classroom. Some of the items in the environmental print corner included: milk, Milo, baked beans and sardine tins, cornflakes and oats boxes, Junior Graphic, news magazines, obituaries and many more. Since this corner was not created for the fun of it, the subjects were encouraged to read at least one item in the corner every day.

Also, as part of the intervention, I taught the experimental group twice in a week with each session lasting for 75minutes for eight weeks using environmental prints as teaching and learning materials. It is worth mentioning that the syllabus was not abandoned during this research; all I did was to incorporate environmental print in my teaching. For example, for a reading/comprehension lesson, stories from newspapers (Junior Graphic) were used to teach reading and comprehension. These stories were cut and photocopied for pupils in the class to learn to read, discuss and answer questions. Pupils were made to find the meaning of new words in these stories and also made to use these words to form sentences of their own to ensure that they understood the meaning of these words. The pupils tend to identify with these stories because they are written by their colleagues. Pupils also see their parents or other literate people in their community reading the newspaper and so using it in the classroom to teach reading bridges the home community with the classroom.

In some other lessons, pupils were made to pick any environmental print of their choice from the environmental print corner, talk about them, after which they

were made to write anything they found interesting about them or construct sentences from them.

It is worth mentioning that because of the number of lessons I had with the subjects, it was necessary to keep changing the environmental prints in the classroom by adding to or replacing the old ones so that subjects don't find them boring or "stale". They were also encouraged to look out for good environmental prints in their communities and create environmental print books from these prints. They were also urged to write about these prints.

The control group received equal amount of tuition as those in the experimental group but with the traditional materials - classroom readers. This group was taught by the English teacher.

3.8.4 Post-Intervention Test (See Samples in Appendix G)

This test was carried out after the intervention to measure the progress or otherwise of subjects. The posttest measured the language skills that the pre-intervention test measured. This was possible because the post-intervention test was identical to the pre-intervention test that was administered to subjects at the beginning of the study. Subjects were made to read the same paragraph they read at the pre-intervention stage and this was scored on a 10 point scale. They were also made to write an essay describing themselves. This was also scored on a ten point scale. It must be stated that this test was administered to both experimental and control groups.

3.8.5 Questionnaire (See Samples in Appendix H)

Questionnaires were designed and administered before (pre-intervention questionnaire) and after the intervention (post-intervention questionnaire) to elicit some information from the subjects and their teachers. Since the researcher wanted to draw conclusions from the information collected, tests alone could not be used to tell what was on the minds of learners and teachers and so the use of questionnaires was very helpful.

The researcher therefore used questionnaires with open and close-ended questions. For questions that required straight forward answers, close-ended questions were used and for those that demanded further explanation, open-ended questions were used.

3.8.6 Pre-Intervention Questionnaire

The pre-intervention questionnaire was developed for both the subjects and their English teacher. The purpose of this questionnaire was to find out the subjects' and their English teacher's knowledge of environmental prints as materials that can be used to teach and learn reading before the study commenced. The first part of both teacher and subjects' questionnaires asked for personal information such as the name, age, sex etc. Some of the questions that the researcher asked the English teacher were:
Have you heard of environmental prints?

If no, how do you supplement for the inadequate materials in your class?

The researcher asked the above questions with the aim of finding out how the English teacher managed to teach reading/comprehension with the inadequate number

of English readers that the school has. That apart, the questionnaire was to find out whether the teacher thought environmental prints could be used to teach reading.

For the subjects, the researcher asked the following questions:

Does the school give you textbooks for use during English lessons?

If no, how do you follow the teacher's lessons in class?

The responses that subjects provided to these questions convinced the researcher that there was the need to use environmental prints to teach reading because of the inadequate reading materials in this school.

3.8.7 Post-Intervention Questionnaire

Just like the pre-intervention questionnaire, this one was directed at both teacher and subjects in the experimental group with the aim of finding out their opinions about the use of environmental prints to teach reading in the classroom.

3.9 Tools for Analysis

Because the study is a combination of qualitative and quantitative approaches, I used the Statistical Package for Social Science analysis (SPSS) for the analysis of the data.

3.10 Summary

This chapter discussed the various instruments that were used to collect data for the study, the intervention techniques that were used as well as the tools for the analysis of the data.

CHAPTER FOUR

DATA ANALYSIS

4.0 Introduction

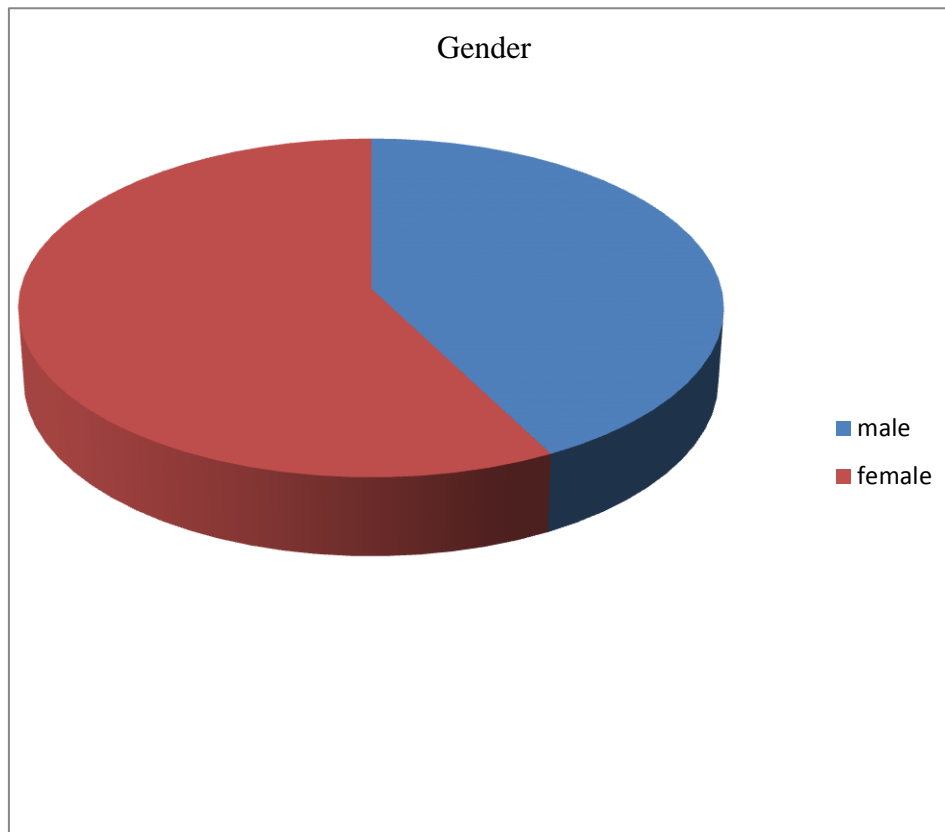
This chapter gives the analysis of the data that was collected from a total of 68 respondents who were covered in the study field. Among them were 33 pupils from JHS 1A, 33 pupils from JHS 1B and 2 teachers for both the pre-intervention and post-intervention. The study sought to look at the use of environmental print materials and their usefulness in the teaching and learning of reading in the classroom. The scores of the control group are compared with those of the experimental group to see if there is any significant difference between them. The descriptive statistics from the data are presented and explained using tables and charts. The new literacy behaviour of learners as well as the challenges encountered in the use of environmental prints to teach are also discussed.

4.1 Background Data

The background data in this study involves the distribution of respondents according to gender, age, religion as well as education and occupations of parents.

4.1.1 Gender

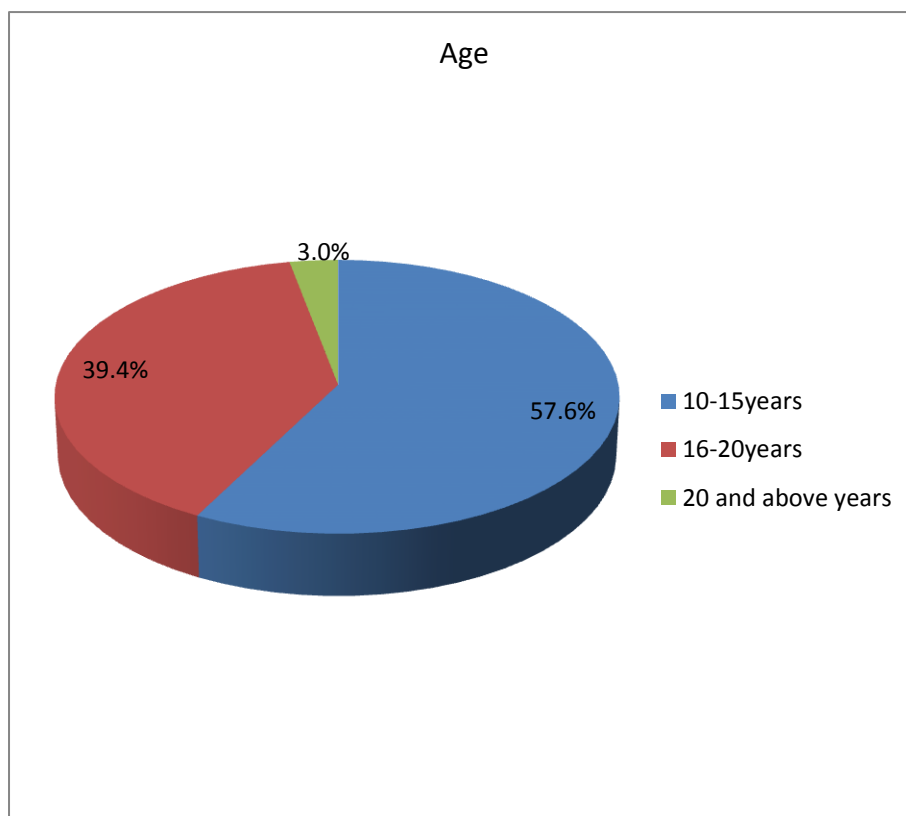
The respondents in this study comprised predominantly of females (57.6%) as compared to (42.4%) representing males, as represented in figure 4.1 below.

Figure 4.1 Genders of Respondents

Source: Survey data/Instrument (2013)

4.1.2 Age

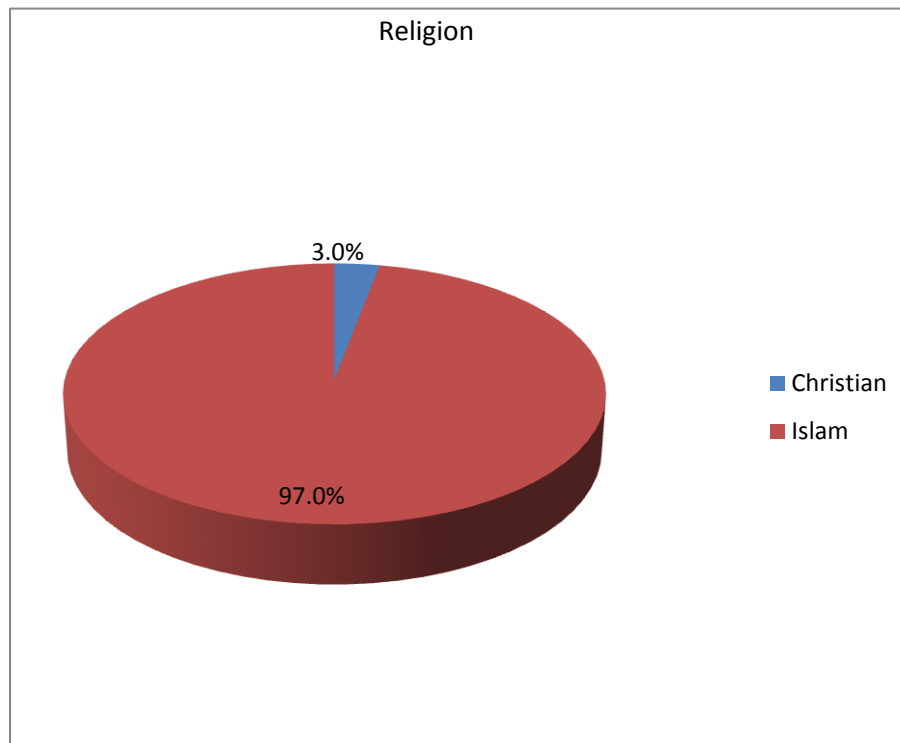
Majority of the respondents (57.6%) ranged from 10-15years; followed by (39.4%) representing those who ranged from 16-20years, whiles (3.0%) represents those who ranged from 20 and above years as seen in figure 4.2.

Figure 4.2 Ages of Respondents

Source: Survey data/Instrument (2013)

4.1.3 Religion

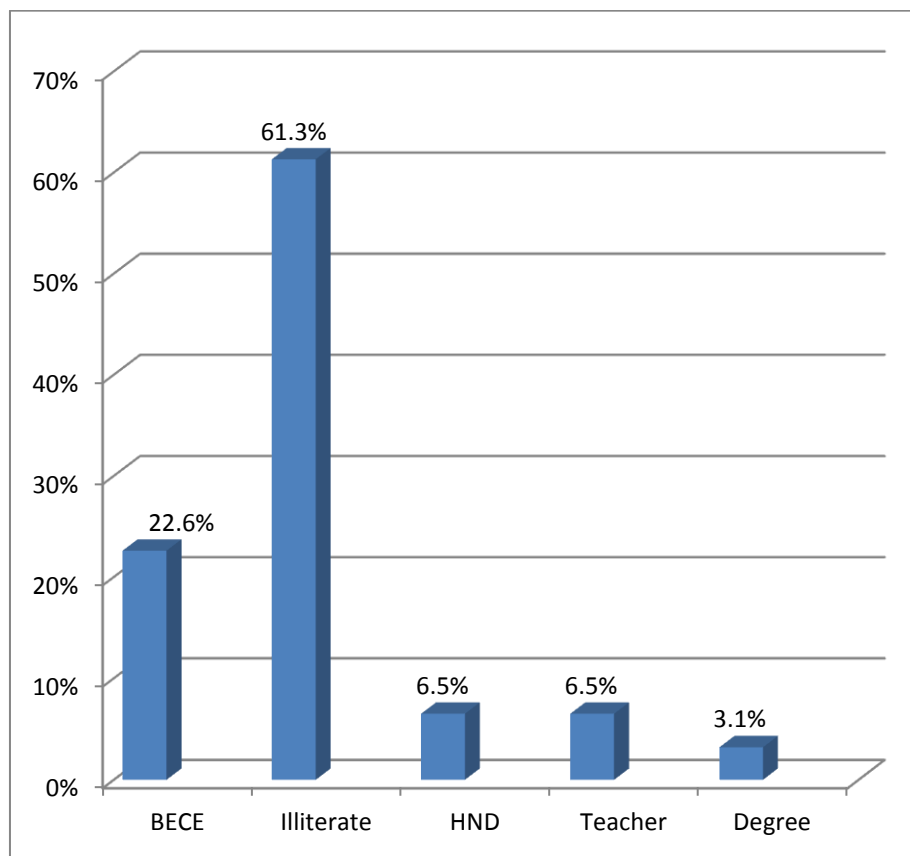
For the religious status of respondents, a majority (97.0%) were Muslims. Only (3.0%) were Christians as represented in figure 4.3 below.

Figure 4.3 Religions of Respondents

Source: Survey data/Instrument (2013).

4.1.4 Educational Qualifications of Respondents' Fathers

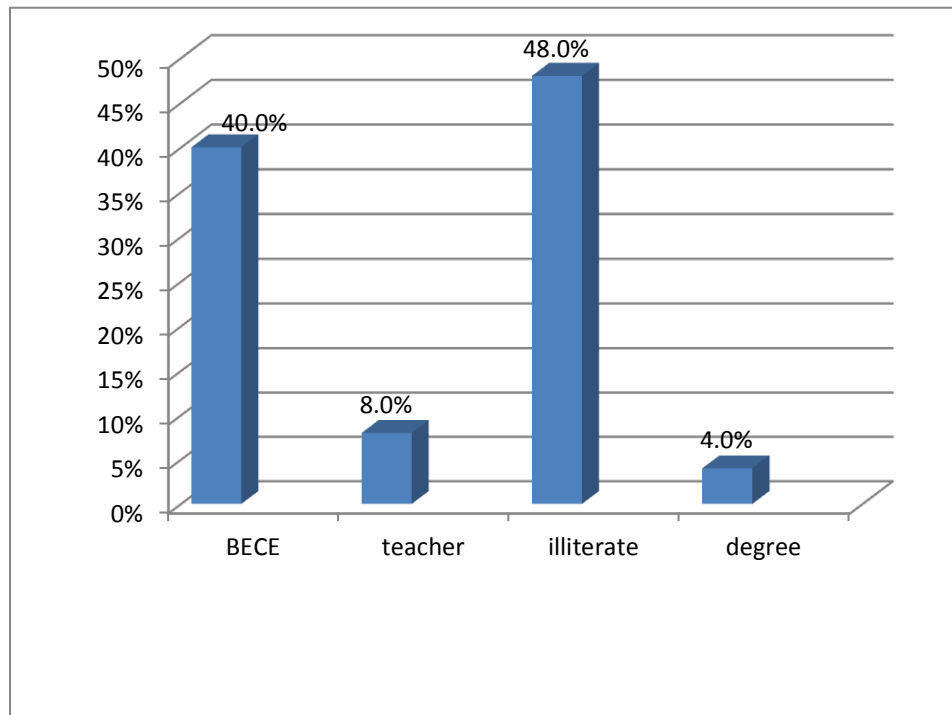
On the part of education, a majority of the respondents' fathers were illiterate representing (61.3%), (22.6%) represents fathers with educational level up to BECE, (6.5%) represents fathers with education up to HND and the same goes for fathers with teacher's Certificate 'A'. Fathers who were degree holders were in the minority with a representation of (3.1%). This is clearly represented in figure 4.4 below.

Figure 4.4 Educational Qualifications of Respondents' Fathers

Source: Survey data/Instrument (2013)

4.1.5 Educational Qualifications of Respondents' Mothers

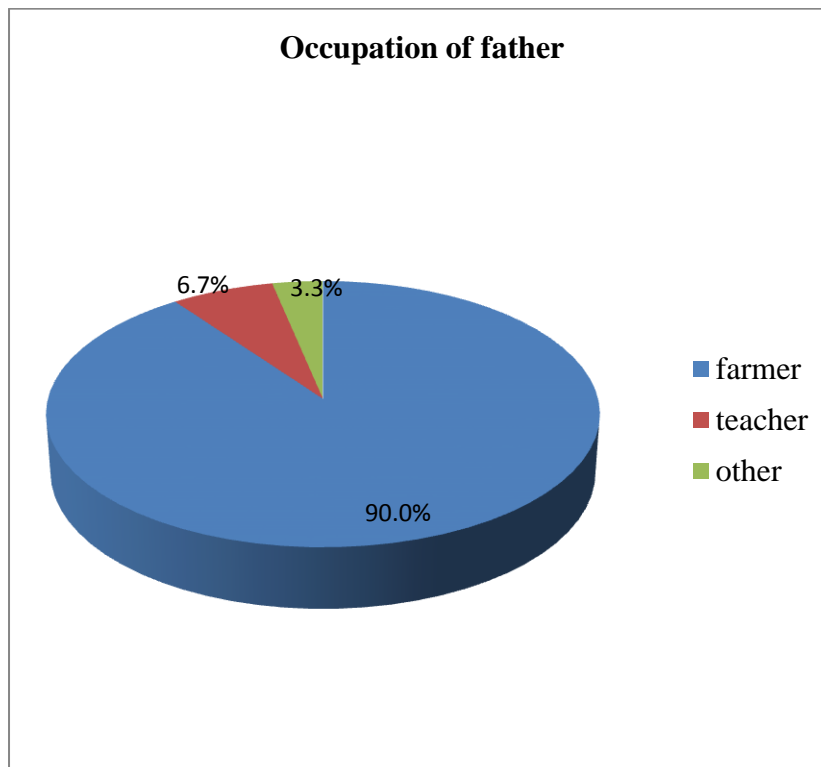
Regarding the educational status of mothers of respondents, figure 4.5 confirms that a majority of their mothers representing (48.0%) were illiterates, (40.0%) represent those whose level of education is up to the BECE level; mothers who were teachers with a Certificate 'A' formed (8.0%) and those with a degree also formed (4.0%).

Figure 4.5 Educational Qualifications of Respondents' Mothers

Source: Survey data/Instrument (2013)

4.1.6 Occupations of Respondents' Fathers

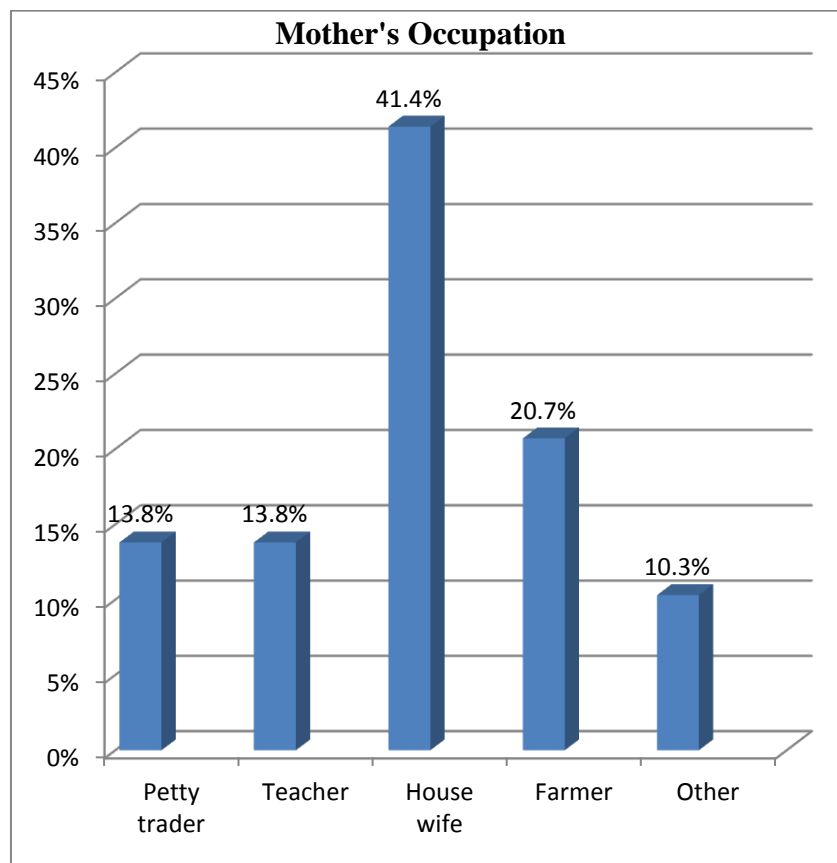
On the occupations of the respondents' fathers, a majority of the fathers were farmers with a representation of (90.0%), while (6.7%) were teachers and those in other professions other than teaching and farming were (3.3%). This is represented in figure 4.6.

Figure 4.6 Occupations of Respondents' Fathers

Source: Survey data/Instrument (2013)

4.1.7 Occupations of Respondents' Mothers

Respondents whose mothers were house wives formed the majority from the study with (41.4%). Mothers who were farmers formed (20.7%); petty traders and teachers both had a representation of (13.8%) while those in other professions represented (10.3%). These are represented in figures 4.6 and 4.7 respectively.

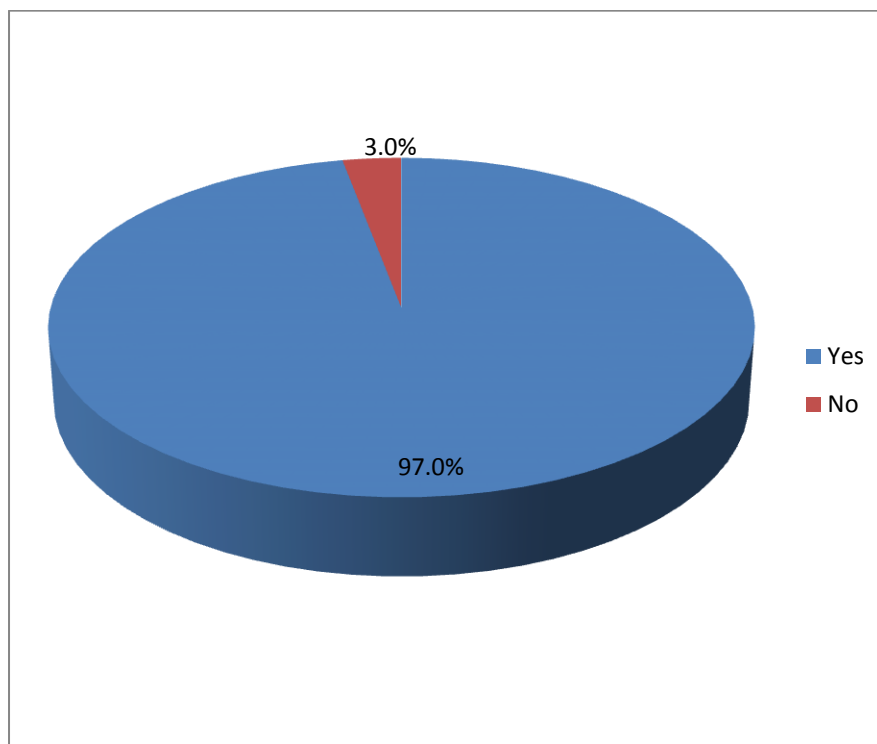
Figure 4.7 Occupations of Respondents' Mothers

Source: Survey data/Instrument (2013)

4.2 The use of Textbooks and Print Materials

Question 8: Does the school give you any textbook (s) for use during English lessons?

The focus of this question was to find out from respondents if the school gave them any textbooks for use during their English Language lessons. To answer this question, data from pupils' questionnaire were used. Figure 4.8 presents pupils' responses.

Figure 4.8 Provision of English Textbooks by School

Source: Survey Data /Instrument (2013)

Figure 4.8 above reveals that, a majority of the respondents representing (97.0%) agree that the school provides them with textbooks during English lessons however, 3.0% say the school does not give them textbooks. This response may be due to the fact that these pupils did not understand the question.

Question 8a: If yes, is it / are they the same as what the teacher uses in class?

This is a follow-up question to question 8 above. The essence of this question was to find out in the case where students answered in the affirmative, whether the textbook the school gives them for their English lessons was the same textbook the English teacher uses during English lessons.

Table 4.1 Are Pupils' and Teacher's Textbook the Same?

	Frequency	Percent
Yes	29	87.9
No	4	12.1
Total	33	100

Source: Survey data/Instrument (2013)

The findings from respondents as confirmed in Table 4.1 reveals that, a majority of the respondents, representing (87.9%), shared the view that the textbook given them by the school is the same as what the teacher uses in class, while those who disagreed on that view represented (12.1%). It is not clear why 12.1% of the class gave a contrary response to the rest of the class since they did not respond to the part of the question that asked how they followed the teacher's lessons if they did not use the same textbook.

Question 9: Have you noticed any prints in your environment?

This question sought to find out if pupils have noticed or seen any environmental prints in their environment or not. Table 4.2 presents the responses by pupils.

Table 4.2 Notice of Prints in the Environment

	Frequency	Percent
Yes	33	100
Total	33	100

Source: Survey data/Instrument (2013)

The finding from the respondents confidently reveals that, there are print materials in the environment and they have noticed them. This fact is clearly illustrated in Table 4.2 where all the respondents, representing (100%) shared this view. This confirms the view of Burns et al (1999:40) that, the environment is full of print and one can find them everywhere.

Question 9a: If yes, do you read these prints?

The import of this question was to find out if pupils read the environmental prints in their environment. It was also meant to find out if pupils read without compulsion to do so. Table 4.3 illustrates clearly the response pupils gave.

Table 4.3 Do You Read these Print Materials?

	Frequency	Percent
Yes	33	100
Total	33	100

Source: Survey data/Instrument (2013)

It is clear from Table 4.3 above that, all the respondents, representing (100%) do take advantage of the print materials in the environment to enhance their reading skills by reading what they see in the environment.

Question 10: Apart from the prescribed textbook, does your teacher use any other material to teach you?

This question was meant to find out from respondents if their teacher used any other material(s) to teach them since their textbooks were inadequate in number yet, there are materials out there that could be used to teach reading. The table below gives a vivid description of pupils' responses to the question.

Table 4.4 Does the Teacher use any Other Materials?

	Frequency	Percent
Yes	23	69.7
No	10	30.3
Total	33	100

Source: Survey data/Instrument (2013)

The finding in Table 4.4 reveals that, the teacher used books other than the textbooks provided by the school to enhance teaching and learning, as a majority of the respondents, representing (69.7%) responded in the affirmative by mentioning books such as *Akiola English*, and *Brighter Grammar*, contrary to 30.3% who said they have not seen their teacher use any materials apart from the prescribed textbooks. This invariably means that the teacher used other materials to teach. Perhaps the 30.3% of respondents did not see the teacher using other materials because they did not pay attention to that.

Question 12: What is your opinion about the use of these other materials?

This question was posed to find out how pupils felt about their teachers using other materials other than the prescribed textbook to teach them. It was surprising that not a single pupil responded to this question. This got me curious and I decided to interact with most of them and asked why they did not answer the question. My interaction with them revealed that though some of them had an idea of what they felt, they could not express themselves in writing while others said they did not understand the question even though the question was explained to them. This finding goes to confirm what Kraft (2003:3) said, that, “[t]here can be no question that the fundamental problem still facing Ghanaian schools remains basic literacy skills in English ...” The implication of this finding is that English teachers have a crucial role to play in the teaching of reading, writing and speaking since these form part of literacy.

4.3 Post-Intervention Data (Pupils)

Question 1: Will you say the use of environmental prints in the classroom has been useful in the teaching and learning of English?

The focus of this question was to find out if pupils think they have benefited from the intervention with environmental prints. Here, the questionnaire data was analyzed by the use of frequencies and percentages. The responses of pupils are clearly indicated on Table 4.5.

Table 4.5 Has the Use of Environmental Print been Useful to You?

	Frequency	Percent
Yes	33	100
Total	33	100

Source: Survey data/Instrument (2013)

It can be inferred from Table 4.5 that all respondents were of the opinion that environmental prints have been useful to them..

Question 2: Would you like environmental prints to be incorporated in your curriculum?

This question sought to find out if pupils would like environmental prints to be part of teaching/learning materials that should be incorporated in their curriculum. Their responses are clearly indicated on the table below.

Table 4.6 Incorporation of Environmental Prints into the Curriculum

	Frequency	Percent
Yes	29	87.9
No	4	12.1
Total	33	100

Source: Survey data/Instrument (2013)

The findings from Table 4.6 reveals that a majority of the respondents, representing (87.9%), share the view that environmental prints should be incorporated in their curriculum while the remaining 12.1% said environmental prints should not be incorporated in their curriculum. The 87.9% who said yes to the incorporation of environmental prints in their curriculum assigned reasons such as “They help us to learn how to read”, “We learn new words” and for the 12.1%, they said environmental prints will not be part of their BECE.

4.4 Pre-Intervention Data (Teachers)

The two teachers included in this study, one male and one female, both had educational qualification up to the first degree level and have been teaching for twenty-one years and one year respectively. Both teachers said they used the English syllabus, charts, English textbooks and other related materials to teach pupils. They further unanimously stated the fact that, they do not have enough teaching materials to enhance teaching and learning and as a result, pupils are grouped especially during reading lessons according to the number of textbooks available. With respect to whether they have heard of environmental prints, one responded in the affirmative

while the other had no idea of what environmental prints were, but both teachers were willing to use environmental prints in their lessons. They expressed the view that prints in the environment can facilitate the teaching of literacy and since the learners are familiar with them (environmental prints), they will appreciate what they are taught. An interaction with both teachers revealed that none of them had their degree in English Language which means that they do not have the requisite academic qualification to teach English Language (Source: Survey data/Instrument (2013).

4.5 Post-Intervention Data (Teachers)

The post-intervention data revealed that the teacher of the class that was given the treatment using environmental prints had noticed some changes in their literacy behaviour after the intervention. The teacher explained that pupils now make an effort to read materials that are posted on the walls of their classroom and the notice board. A few of them buy the Junior Graphic and after reading, they discuss the stories they have read with their friends. The teacher then advised that, environmental prints should be incorporated in their lessons, at least once a week (source: Survey data/Instrument (2013).

4.6 Test of Hypothesis

It is hypothesized in this study that the use of environmental print would have an effect on the reading abilities/literacy development of learners. For the experimental group, Table 4.7 below reveals that on the aspect of reading, an overall minimum score of 2.00 and a maximum of 7.00 were obtained out of 10points in the pre-intervention test (pretest). An overall minimum of 3.00 and a maximum of 9.00

were obtained in the posttest. Comparatively, the mean value of 6.06 obtained in the posttest which is greater than 4.12 obtained in the pretest shows that there is a significant difference between the pre and the posttest scores which provides evidence for the effectiveness of the intervention with environmental prints. On the aspect of writing, an overall minimum score of 1.00 and a maximum of 5.00 were obtained in the pretest, while an overall minimum of 2.00 and a maximum of 6.00 out of 10points were obtained in the posttest. A comparison of the mean values of the two tests where 5.11 which is for the posttest is greater than 3.68 for the pretest, shows an improvement in the performance of the pupils who were taken through the intervention with environmental prints and further confirms the fact that the use of environmental prints has a positive impact on the literacy behaviour of learners.

Table 4.7 Group statistics - Experimental Group

ASPECT	Test	N	Minimum	Maximum	Mean	Std. Deviation
Reading	Pretest	33	2.00	7.00	4.12	1.12
	Posttest	33	3.00	9.00	6.06	1.37
Writing	Pretest	33	1.00	5.00	3.68	1.07
	Posttest	33	2.00	6.00	5.11	1.66

Source: Test Scores (2013)

Table 4.8 Group statistics - Control Group

ASPECT	Test	N	Minimum	Maximum	Mean	Std. Deviation
Reading	Pretest	33	2.00	6.00	3.64	1.01
	Posttest	33	2.00	6.00	4.00	.933
Writing	Pretest	33	1.00	5.00	3.08	1.03
	Posttest	33	1.00	6.00	3.48	1.06

Source: Test Scores (2013)

Similarly, Table 4.8 which represents the group statistics of the control group shows that for the reading test, pupils made an overall minimum score of 2.00 and a maximum of 6.00 in both pretest and posttest. For the writing test, a minimum score of 1.00 and a maximum score of 5.00 were made in the pretest while a minimum of 1.00 and a maximum score of 6.00 were made in the posttest. Table 4.8 further reveals that in the reading test, the control group recorded higher scores in the posttest with a mean value of 4.00 as compared to the mean value of 3.64 recorded for the pretest and for the writing test, the group performed better in the posttest than in the pretest as the mean score of 3.48 for the posttest is greater than 3.08 recorded for the pretest.

Table 4.9 Test of significance - Experimental Group

ASPECT	Test	N	Mean	Std. Deviation	t	Sig. (p)
Reading	Pretest	33	4.12	1.37	-5.062	.124*
	Posttest	33	6.06	1.12		
Writing	Pretest	33	3.68	1.07	-7.872	.080*
	Posttest	33	5.11	1.66		

Source: Test Scores (2013)

From Table 4.9, the experimental group performed significantly better (mean = 6.06) in the posttest for reading than in the pretest (mean = 4.12) ($t = -5.062$ and $p > 0.05$).

Furthermore, in the aspect of writing, the posttest scores of the pupils

were significantly higher (mean = 5.11) than their pretest scores (mean = 3.68) ($t = -7.872$ and $p > 0.05$).

Table 4.10 Test of significance - Control Group

Aspect	Test	N	Mean	Std. Deviation	t	Sig.(p)
Reading	Pretest	33	3.64	1.01	-34.333	.019*
	Posttest	33	4.00	.933		
Writing	Pretest	33	3.08	1.03	-33.600	.019*
	Posttest	33	3.48	1.06		

Source: Test Scores (2013)

Although the control group was not taken through the intervention with environmental prints, Table 4.10 above shows that they performed better in the posttests for both reading and writing since in the posttest for reading, they recorded a mean value of 4.00 and 3.64 for the pretest ($t = -34.333$ and $p > 0.05$) and for writing, the group recorded a posttest mean score of 3.48 and for pretest, 3.08 ($t = -33.600$ and $p > 0.05$). The closeness in the significant difference recorded between the reading and

the writing tests could be attributed to the fact that members of this group were not taken through the treatment.

Comparing the posttest mean values of the control group (reading = 4.00 and writing = 3.48) with that of the experimental group (reading = 6.06 and writing = 5.11), it is evident that the experimental group out-performed the control group in both reading and writing.

In conclusion, there was a significant mean difference in the posttest scores obtained by the experimental group and this goes to strengthen the assumption that instruction with environmental prints will help learners perform well in reading in particular and literacy in general.

4.7 The New Literacy Behaviour of Learners

The observation made after the intervention is that learners have become academically curious; their attitude towards reading is now quite impressive since instead of their old habit of throwing away any print material they find on their school compound or other places, they now read them and decide whether to keep them or throw them away. This behaviour, I would say, is an indication that learners are now anxious to read.

Again, it is important to state that after the intervention, I noticed that learners had made quite an improvement in their reading and writing as seen clearly in their essays. They were able to acquire new vocabulary and good expressions from the environmental prints, especially the Junior Graphic newspaper and this made their essays better than before. The length and grammar of their essays have also improved. The evidence is seen when we compare essays 1A and 2A with essays 1B and 2B in

appendix A and Appendix G. Also, it came to light that environmental prints had a significant influence on learners' understanding of what they read. This was demonstrated in some of the short essays learners wrote on some environmental prints. Although there are no voice recordings of learners to show as evidence, it is important to mention that by the end of the intervention, learners had improved quite drastically in their speaking. This is because they were made to bring their choice of environmental prints and talk about them. This made most of the shy and less confident ones to break their silence in class and interact freely, using the English language. Besides, since some of the prints talked about general issues such as the importance of education, sanitation, honesty, election dispute and so on, they gave each learner the opportunity to contribute. The general nature of the environmental prints that were used in this study not only helped learners to improve on their spoken language but helped them to get information on everyday life situations and what goes on around them.

My observation will be incomplete if mention is not made of the great interest learners showed in the use of stories from the Junior Graphic for reading and comprehension. They even developed the habit of cross checking the meaning of words from the dictionary or asking their teachers for the meanings of words; this is something they used not to do. The fact that some of these learners saved part of their pocket money and some came together to contribute money to buy the Junior Graphic on every Wednesday implies that their reading behaviour has improved.

It is imperative to mention finally that, the progress that a learner makes in literacy (reading, writing and speaking) will depend on what he/she already knows. What this means is that their progress will depend on their levels of performance even

at the point of the pre-intervention. It was therefore not surprising to see that those who were good improved faster than those who were not good. This is the point where I tend to side with (Chall, 1979, Gough & Hillinger, 1980) who hold the view that some prerequisite skills like alphabet /letter knowledge, phoneme segmentation skills etc. are needed in order for the child to be able to read. This finding also confirms Masonheimer et al (1984)'s view that merely exposing children to environmental prints will not make them acquire any reading skills. This means that the teaching of some prerequisite skills and the active use of environmental prints in the classroom could improve the reading, writing and speaking skills of learners at all levels of basic education.

4.8 Summary

The intervention/instruction with environmental prints resulted in a significant difference between the mean scores of the control and the experimental groups. It is therefore relevant to say that the outcome of this study lends credence to the contention made by Wepner (1985) that, environmental prints could be an important tool that could help to develop children's literacy. The findings also confirm the view of Bediako (2008) who said that pupils who were taught with environmental prints "exhibited positive responses in their attempts at speaking, and reading".

Also, not only does this study provide evidence on the relevance of environmental prints in the teaching of reading/literacy, but the results are consistent with others found in the literature. This study has found out that environmental prints can be used to teach reading in J.H.S. one. It has also assessed the effectiveness of environmental prints on children's writing, reading and speaking.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter is presented in three (3) parts. First, it summarizes the whole work, including the findings of the study. Second, it draws conclusions based on the findings of the study, and third, it recommends ways to enhance reading skills of students based on the findings of the study.

5.1 Summary

The aim of this study was to investigate the research objectives stated in the introductory chapter. The study aimed at identifying environmental prints as appropriate and useful resources for the teaching and learning of reading in J.H.S. one. Also, the study aimed to assess the effectiveness of the use of environmental prints on the literacy (reading, writing, and speaking) behavior of the learner. The study examined whether the school provides textbooks for students during English lessons. A majority of respondents in this study consented to the fact that the school provides them textbooks during lessons even though they are not enough and therefore, most of them including their teacher advocated the incorporation of environmental prints in their curriculum. Ultimately, the findings project the view that, respondents have taken notice of print materials in the environment and these print materials, according to them have been very useful and have enhanced their reading skills. The findings also revealed that the experimental group performed

better than the control group, which suggests that environmental prints can be used to improve the reading abilities of learners in J.H.S. one.

Data was collected from J.H.S. one pupils and two teachers from Wurishie Community Al-Badal JHS who constituted respondents in the study. A sample of 68 respondents was covered for the study.

The respondents comprised more females than male students. This finding seems to suggest that parents are responding positively to the call to send their girl-children to school rather than relegate them to house chores. The respondents comprised more of younger students (below 15years) than older ones. The teachers involved in the study were one male and one female and both have had education up to the first degree level.

The study, which is an experimental research, was carried out within a period of eight weeks. Pre-intervention tests were first conducted to measure learners' reading and writing abilities after which an intervention with environmental print was carried out. Post-intervention tests were administered after the intervention and the scores of the control group were compared with those of the experimental group using Statistical Package for the Social Sciences (SPSS) for the analysis.

5.2 Problems of Using Environmental Prints for Classroom Instruction

Even though this study presents environmental prints as good materials for language learning, it is fair to state that they pose some problems in the language classroom. Prominent among the challenges was the fact that environmental prints were a source of distraction for learners' attention because they concentrated on the prints that were pasted on the walls instead of listening and paying attention to the

teacher. This may be due to the fact that the use of environmental prints in the classroom was new to learners and so they were excited about it. It is hoped that with time, learners will get used to the prints and the idea behind their use and pay full attention to the teacher.

Also, it is difficult to use some environmental prints in the classroom because they are not appropriate. For example, wrong use of words and wrong spelling of words on some environmental prints is one of the challenges that one cannot help but notice when using environmental prints in the classroom. Among the wrong spellings that learners copied from billboards, shop names, signboards/posts are “Airtel Frndz” instead of Airtel Friends, “Talented Kidz” instead of Talented Kids, “Ultimate Beauty Saloon” for Ultimate Beauty Salon, “Uniik Drinking Spot” instead of Unique Drinking Spot, “Qwick Pik” for Quick Pick, “FC Beauty Klinik” for FC Beauty Clinic, and the list goes on. Samples of these can be seen in appendix E. It is important at this stage to state that, for the prints with wrong spellings, I made good use of them by teaching pupils the correct version of each print. To reinforce this, dictation exercises were conducted for pupils to make sure they had grasped the correct spelling of the various words.

Another area of worry when it comes to the use of environmental prints in the classroom is television, radio and newspaper advertisements. It will not be out of place to say that the language of some advertisements on both television and radio and even the newspaper is very appalling and can be misleading to the less or uneducated populace. For instance, the advert on Mobile Water which says “I’m love you, I’m kiss you, mobile water...”, the Databank advert in the Junior Graphic of Wednesday, September 18-24, 2013 page 11 which says “ If you want your Moni to live and

Grooow, bring it down to Databank” and many more can mislead learners by making them think that the language as well as the spellings are correct and they may also start using and writing such language since it is not strange for us to hear people, learners included, express their belief in the infallibility of the media (print and television especially). Even though this research focuses on the use of environmental print to teach reading, I taught grammar, mostly using such constructions.

Again, another challenge I encountered during the intervention with environmental prints was the fact that some environmental prints were considered a taboo or improper for the classroom. For example, one of the learners copied the writing, “Pork meat for sale” and this generated chaos in the classroom because almost all the learners in the class were Muslim and so they consider pork a taboo. Apart from the fact that this particular print created chaos, it is improper for the classroom because pork is the meat from a pig and so I explained to pupils that it is wrong to say “pork meat”.

Despite these numerous challenges that were encountered with the use of environmental prints, a careful selection of these prints by the teacher can minimize learners’ interaction with bad grammatical constructions as well as wrong use of words and wrong spellings. The teacher should also caution learners on the fact that, not all environmental prints are good for learning and also, not every construction they hear on radio or television is correct.

In conclusion, the challenges of using environmental prints to teach reading are not strong enough to out-weigh the benefits of using them in the language classroom.

5.3 Conclusions

The following conclusions are made based on present findings:

Both teachers and learners have seen and noticed prints in their environment but were not aware that they could be used to teach/learn reading or literacy in the classroom.

The children who were taken through the intervention with environmental prints (experimental group) showed a significant improvement in their ability to read, write, speak and even spell words.

Children need to possess certain prerequisite skills such as alphabet letter names, phoneme-grapheme relationship, phoneme segmentation skills among others before they are able to read.

5.3.1 Environmental Print Awareness

It is evident from this study that children are aware of environmental prints since they contributed immensely to their availability by bringing their own environmental prints from home to the classroom. Even though most of them could read the prints they brought, a few of them could not read but they were high spirited because they contributed to bringing environmental prints to the classroom. Jakalia (2002) supports this finding since he believes that children are eager to read labels that they come across and that they contribute largely to the availability of prints.

5.3.2 Intervention with Environmental Prints

The most significant finding of this study is that, the intervention/treatment with environmental prints brought about significant improvement in learners' ability to read, write, speak and even spell words. There were significant mean gains made in

the posttest scores for both reading and writing of the experimental group as compared to the posttest scores of the control group and this attests to the fact and also provides evidence that environmental prints are useful materials that can be used to develop the literacy abilities (reading, writing, speaking) of learners.

This finding is consistent with Giles & Tunks (2010:28) who believe that the use of environmental print improves children’s writing and “helps them to internalize correct spelling of commonly used words” and Patterson (1991:37-38) who says that newspaper articles (which of course are part of environmental prints) improve the reading, writing, speaking and listening skills of students.

The results of this study however, refute Goodall (1984)’s finding that, the reading of environmental prints had no effect on conventional reading and the conclusion made by Masonheimer, Drum & Ehri (1984) that, environmental print reading alone does not lead to word or conventional reading.

Even though this study refutes the conclusions of Goodall (1984) and Masonheimer, Drum & Ehri (1984), it has shown that merely exposing children to environmental prints will not help them develop literacy skills but that the teacher needs to use these prints as effective tools to develop the literacy/reading skills of learners.

5.3.3 Prerequisite Skills for Reading

There was no significant difference between the pretest and posttest scores of some of the children who could not read even before the intervention and so the intervention with environmental print alone could not help them learn how to read. This finding confirms the view held by Masonheimer et al (1984), Goodall (1984), Ehri (1987) and

Gately (2004) that, the reading of environmental print/logo alone will not automatically make children do conventional reading. This finding is also consistent with the view that children need to possess certain prerequisite skills before they can do conventional reading.

5.4 Recommendations

The findings of this research have significant implications for curricula designers, policy makers and implementers, English Language teachers and parents.

5.4.1 Implications for Curricula

In order to provide rich and meaningful curricula, educators need to include environmental prints in literacy programmes at the basic level. The inclusion of environmental prints that are chosen personally by children will make them feel ownership of the class as they see themselves as contributors to their own literacy programmes (Kirkland et al 1991:219-222). Therefore, teachers can use environmental prints that children are familiar with to bridge the gap from home to school and to also teach them how to read.

Below are a few suggestions on how environmental prints can be used in the language classroom:

Environmental Print Read and Write: Children are made to read stories from magazines and newspapers after which they write a story similar to what they have read.

Environmental Print Pick and Write: Children are made to bring environmental prints of their choice from home and are made to write essays about these prints.

Environmental Print Journal: Children would glue different environmental prints/logos onto a folder to form a book. For every print they paste, they write short sentences describing that print.

Environmental Print Scavenger Hunt: Children are taken through the neighborhood to identify environmental prints that will enable them answer some scavenger hunt questions. For example, can you find a signboard that says “Knowledge and Skills”? What other words are on this sign? (Watson, D.C., 2013:48).

5.4.2 Implications for Policy Makers and Implementers

In order to facilitate effective teaching and learning in the classroom, adequate textbooks should be made available in the classroom, especially during reading lessons so that students can have textbooks to enable them participate fully during such lessons.

It is also suggested that policies are put in place to encourage teachers to upgrade and equip themselves with the needed knowledge and skills to enhance teaching and learning of reading (English) since most of the teachers at the basic level who teach English do not have the required background training to teach the subject. Also, classroom walls should be designed in ways that make room for the pasting of environmental prints.

5.4.3 Implications for English Language Teachers

The English language teacher plays an enormous role to enable children learn how to read and write in the language classroom even when reading materials are

inadequate or not available at all. It is therefore important that training courses are organized for basic school teachers on how they can acquire and use environmental prints in the classroom. They should also be taken through the types of environmental prints available at a cheaper cost and encouraged to use environmental prints to teach every aspect of the English language. Teachers should sometimes allow learners to meaningfully interact with prints through discussion. Again, teachers should be careful in selecting environmental prints for use in the classroom because of the challenges outlined above

5.4.4. Implications for Parents

Parents play a vital role in the literacy development of their children and so it is important that they enhance their children's reading abilities by displaying environmental prints in their homes for children to learn. Parents should also endeavor to read environmental prints and other materials in the presence of children.

5.5 Further Research

This study revealed that instruction with environmental prints improved the reading abilities and literacy development of learners. Therefore, future researches in this area could look at whether or not these results are generalized to other populations. In addition, researchers in this area should go further to examine the skills that children need to be able to do conventional reading and the impact of parents' education and occupation on their children's ability to read environmental prints. Finally, it would be interesting to explore the effectiveness of instruction with environmental prints on blind children.

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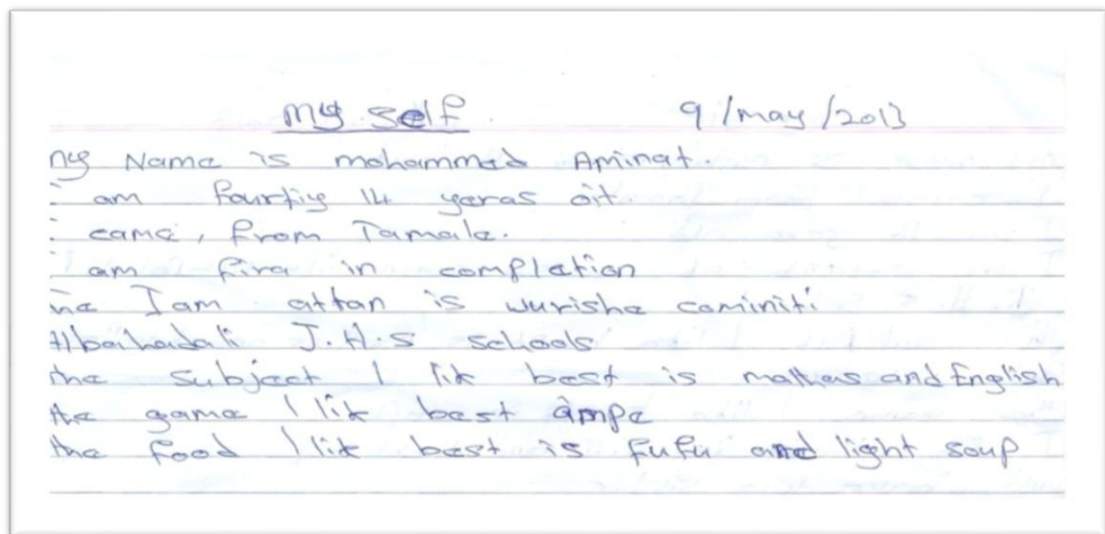
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APPENDICES**APPENDIX A****EXTRACT FROM FORM ONE READER FOR READING TEST****NO ONE CAN HELP AN UNLUCKY MAN**

Once there was a very poor farmer who never had enough to eat. But his neighbour owned a big farm, had many wives and children, and plenty of food and money. One day, a very rich man came walking down the road towards the two farms. Although he was rich, he was wearing a ragged coat and torn trousers, and a cap with a hole in it. Nobody would guess he was rich. Everyone thought he was a beggar.

Source: JHS One English Reader Page 67

SAMPLES OF PUPILS ESSAYS AT PRE-INTERVENTION**ESSAY 1A**

Source: Fieldwork, 2013

ESSAY 1B

My SELF	9/ May 12013
<p>My name is Issa I come from Klunisie. I am 14 years old I am attending Wunisie community Al-bahdal I fair in colour I am in J.H's one. I like going to school early in the morning. We stay at Klunisie. Our family are about 88 My name is Issa my fathers name is I nusah.</p>	
<p>I have 8 brothers at home. The best food I like is fufu with light soup and meat the breakfast is tea with miho and hido and bread with egg. In our school the subject I is science, english, social and R.M.F our head Mistress name is madam Banikisu and our assistant head master name is mr. Nazoolo and our form master is mr. Hamza. The game I is foot ball I play it with my friends and my brothers.</p>	

Source: Fieldwork, 2013

APPENDIX B

SAMPLES OF ENVIRONMENTAL PRINTS



Source: Fieldwork 2013, 10/5/2013

APPENDIX C

STATE OF THE CASSROOM BEFORE INTERVENTION WITH ENVIRONMENTAL PRINTS



Bare Walls of the Classroom

Source: Fieldwork 2013, 9/5/2013

APPENDIX D

LITERACY- RICH ENVIRONMENT



The Researcher Helping Learners to Create a Literacy-Rich Environment.

Source: Fieldwork 2013, 14/5/2013



The Researcher Helping Learners to Create a Literacy-Rich Environment.

Source: Fieldwork 2013, 14/5/2013



Walls of the Classroom Flooded with Newspapers to Create a Literacy-Rich Environment.

Source: Fieldwork 2013, 16/5/2013



Learners Writing about Environmental Prints

Source: Fieldwork 2013, 20/6/2013

APPENDIX E

**SAMPLES OF STORIES FROM THE JUNIOR GRAPHIC THAT WERE
USED FOR THE INTERVENTION**

Junior Graphic 9

Wednesday, June 26 – July 2, 2013. www.graphic.com.gh

Short Story

Perseverance

Jane grew up in the slums along a coastal community in Accra where enrolment of girls in school was very low. Due to poverty, most young girls in the community had dropped out of school to assist their parents in their various trading activities. The few who were in school had the wrong notion that education will be of no benefit to them so they were not serious. Majority of them were adolescent mothers as well. As the first child of her widowed mother, Jane had no choice but to assist her mother to sell fresh fish in order to support the family. What made Jane, however, so unique from the other young girls in the community was the fact that she did not have a baby and was bent on completing school. Every morning, before she went to school, Jane sold soap and other detergents and hawked fresh fish after school. Because of these activities, Jane was always late for school. Angela, her friend, usually waited for her at her home so that they would go to school together. But they were always so late that they could not escape punishment from their teacher. This, however, did not discourage Jane from attending school each day. One afternoon after school, Jane was as usual selling fresh fish when an elderly woman called her to purchase some of her wares. When she went, the woman intentionally asked her questions about her wares in English. Jane was able to answer her flawlessly in English, which impressed the woman very much. She was surprised that there was a girl in the community who could speak English fluently and perfectly. The elderly woman, whom Jane later got to know as Auntie Dinah, apparently had been contracted by the district assembly and the chief of the area to identify needy, brilliant girls who would be supported to pursue their education. The aim was to sponsor the education of such girls in order to boost girls education in the area. This intervention was to improve the low level of girls education in the community. For the past four months that Auntie Dinah had been in the community, she had not been impressed with the attitude of the girls she had met. That was why she was so impressed with how well Jane spoke the English language. After talking to Jane for some time, Auntie Dinah got to know where Jane lived, who her parents were as well as where she attended school. She followed up on her activities in school and the neighbourhood and having been convinced that she deserved a scholarship, forwarded her name to the district assembly. With her school report and testimonial, Auntie Dinah was able to convince the assembly to assist Jane financially. Jane took her studies seriously and passed the West African Secondary School Certificate Examination. She gained admission to the Medical School where she trained as a paediatric surgeon. After her graduation, though Jane had many good offers from international organisations to work for them, she decided to go back to her community to put her expertise at the disposal of her people. Today, because of her, many girls in the community have taken their education seriously. They are now of the view that they can also perform as brilliantly as Jane had done.

GLOSSARY

- **Slum** — An area of a city that is very poor and where the houses are dirty and in bad condition.
- **Hawk** — To try to sell things by going from place to place asking people to buy them.
- **Flawless** — Perfect.
- **Impress** — To feel admiration for somebody or something.
- **Paediatrics** — The branch of medicine concerned with children and their diseases.

*Fitzgerald Adjetej,
Prince of Peace Presbyterian
School,
P.O. Box BT 36,
Tema.*

Source: Junior Graphic, June 26 – July 2, 2013

Wednesday, July 24 – 30, 2013. Visit www.graphic.com.gh

Short Story

Restored hope

Esi Korankye was the fourth child of her parents. As the only child in the family to have entered senior high school, she considered herself fortunate indeed and would, therefore, not allow the difficulties in life to make her give up on her aspirations. The road to her current status had not been easy but she was grateful to God for all the good things that had come her way.

Esi was born into a family where most of the young people were not able to complete basic school. Due to poverty, the young boys in her family worked as farm hands while the girls were street hawkers. The harsh economic conditions had taken their minds completely off the possibility of acquiring education. For them it was all about how to make ends meet.

However, right from the beginning Esi was hopeful that she would not end up like the other young people in her family. Luckily for her, her parents, despite their economic hardship, shared the same view. They believed that if at least one of their

four children was educated, that person could help the others and that was why they wanted to give Esi all the needed push in her education. Unfortunately, just as Esi finished writing the Basic Education Certificate Examinations, her father kicked the bucket.

Her father's death brought untold hardship to the family because he was the breadwinner. Though her mother wanted the best for Esi she did not have enough to pay for the fees but she promised to do everything in her power to see Esi through school.

Her mother managed to raise the admission fee; the problem, however, was how to provide pocket money for Esi's upkeep in school. Esi

agreed to eat at home in the morning before going to school so that she would not have to take any money to school.

At school, things were difficult for her as sometimes at lunchtime her stomach rumbled from hunger, but because there was nothing she could do, she resigned herself to her fate.

One day, however, things were really bad at home, to the extent that there was no food so Esi went to school on an empty stomach. She felt so hungry by lunchtime that she could simply not concentrate in class. She, therefore, sought permission to go home with the excuse that she was ill.

On her way home Esi accidentally kicked a leather-like pouch that turned out to be a wallet. She took it, opened it and found some documents including a passport and some foreign currency in it.

The owner of the wallet had his complimentary card in it, therefore, she used somebody's phone to call the line. It happened that the owner, who was based outside the country mistakingly dropped the wallet and he had searched everywhere for it, to no avail. The man was so grateful to Esi for her honesty and when he visited her at home to express her gratitude to her and realised the condition in which Esi's family lived, he decided to sponsor Esi's education.

With his help, Esi was able to continue her education. She was so happy that God had restored hope to her life. Every opportunity she got, Esi asked people not to give up on their aspirations but have faith in God to provide their needs.

*Faustina Nyarkoab
Ferguson,
Child Evangelism
School,
P.O. Box 273,
Akim Oda, E/R.*



GLOSSARY

- **Pouch** - A small bag, usually made of leather, and often carried in a pocket or attached to a belt.
- **Restore** - To bring back a situation or feeling that existed before.
- **Rumble** - To make a long deep sound or series of sounds.
- **Wallet** - A small flat folding case made of leather or plastic used for keeping paper money and credit cards in.
- **Complimentary** - Given free of charge.

Source: Junior Graphic, July 22-30, 2013

APPENDIX F

**ENVIRONMENTAL PRINTS THAT POSE PROBLEMS OF WRONG
SPELLING AND WRONG USE OF WORDS**



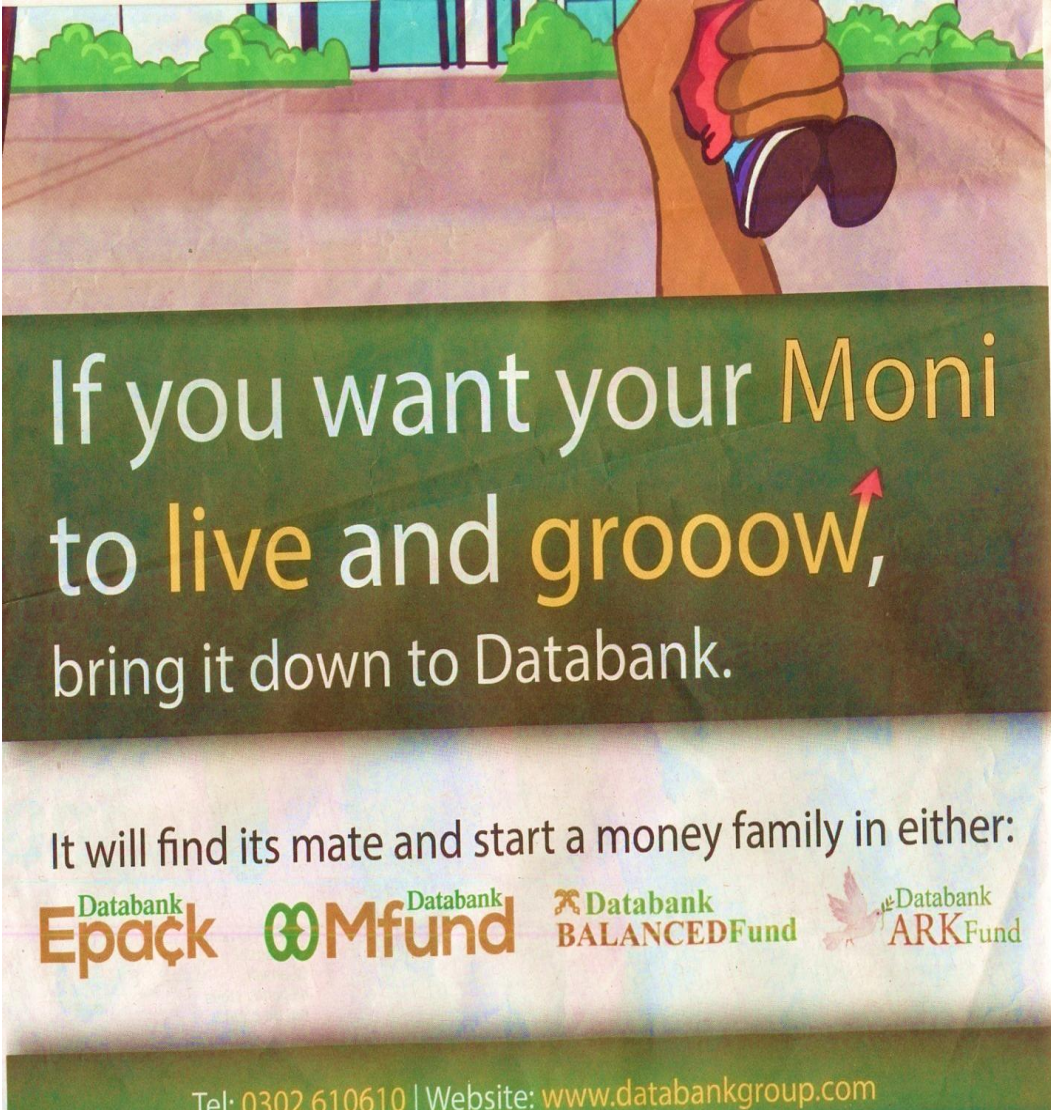
Source: Fieldwork 2013, 15/5/2013



Source: Fieldwork 2013, 15/5/2013



Source: Fieldwork 2013, 15/5/2013



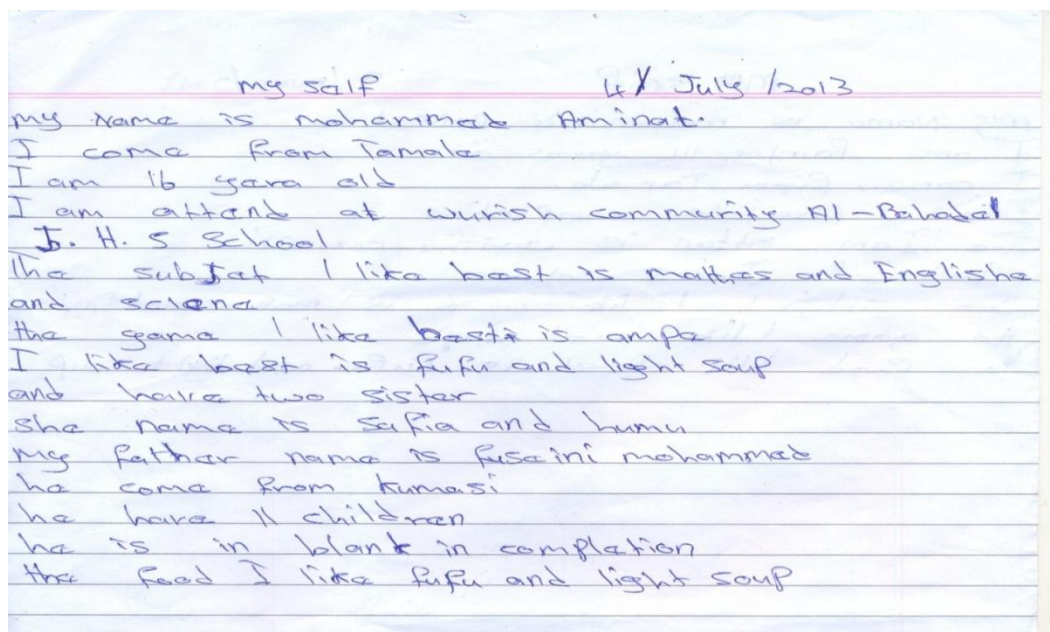
If you want your **Moni**
to **live** and **grooow**,
bring it down to Databank.

It will find its mate and start a money family in either:

Databank Epaçk **Databank Mfund** **Databank BALANCEDFund** **Databank ARKFund**

Tel: 0302 610610 | Website: www.databankgroup.com

Source: Junior Graphic, September 18-23, 2013

APPENDIX G**SAMPLES OF PUPILS ESSAYS AT POST INTERVENTION****ESSAY 1B**

Source : Fieldwork, 2013

ESSAY 2B

My name is Issah and I come from Klunshie. I attend Klunshie Community Al-bahdal J.I.I.S. I am 15 years old and I am black in complexion. I have 8 brothers and 2 sisters.

My father's name is Yakubu and my mother is called Aminah. I like going to school early. The subjects I like best are science, English, social studies and I.C.I. The best game I like is football. I like playing it with my friends and classmates especially when we go to P.E. I like football because it can make you popular like Asamoah Gyan and you can get plenty of money. We do a lot of exercises like playing football, running challenge and skipping.

I like helping my mother especially when we are in the kitchen. We do a lot of work in the kitchen like washing bowls etc. I like helping my mother because when I help her she will give me big meat and plenty of food and the big fishers. I like fufu with light soup and cow meat. Anytime my mother prepares fufu I am always happy.

I like learning hard because I want to become a teacher and teach in university. My best friend is Fuseni and Nuhu. We are in form 1 and next year we will go to form 2. After I write KCSE I will go to Tambo.

Source : Fieldwork, 2013

APPENDIX H**STUDY QUESTIONNAIRE FOR TEACHERS (PRE-INTERVENTION) ON
USING ENVIRONMENTAL PRINTS TO TEACH READING AT THE BASIC
SCHOOL.**

The purpose of this questionnaire is to obtain data from English Language teachers of Wurishie Al-Badal Junior High School on how they supplement for the inadequate textbooks in their classrooms. Kindly answer the items on the questionnaire frankly to give us valid data. You are assured of confidentiality of your responses.

1. What is your educational qualification?

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.....

2. How long have you been teaching English Language?

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

3. What resources/material do you use for your English lessons?

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

(Tick in the box where applicable)

4. Do you have enough of these materials for your use as a teacher?

Yes

No

a. If yes, do the students have the same materials to follow your lessons?

Yes

No

b. If no, how are the students able to participate adequately in your lessons?

.....

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5. Have you heard of environmental prints?

Yes

No

a. If yes, what are they?

.....

.....

b. If no, how do you supplement for the inadequate materials in your class?

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

6. Are you willing to try the use of environmental prints in your lessons?

Yes

No

7. Do you think the use of familiar logos and prints in the environment can facilitate the teaching of literacy?

Yes

No

a. If yes, explain how

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b. If no, why?

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**STUDY QUESTIONNAIRE FOR PUPILS (PRE-INTERVENTION) ON USING
ENVIRONMENTAL PRINTS TO TEACH READING AT THE BASIC
SCHOOL**

This questionnaire aims at helping the researcher to collect data from respondents on whether they have adequate number of textbooks for use during English lessons and if they have noticed any prints in their environment. You are kindly entreated to be sincere and frank with your response to the items on the questionnaire. I wish to assure you of strict confidentiality on the information you would provide.

Section A

1. Age:
2. Sex:
3. Class:
4. Religion
5. Educational Background of Parents:
 Father.....
 Mother.....
6. Occupation of parents:
 Father.....
7. Mother.....

Section B

(Tick in the box where applicable)

8. Does the school give you any textbook (s) for use during English lessons?

Yes

No

a. If yes, is it/ are they the same as what the teacher uses in class?

Yes

No

b. If no, how do you follow the teacher's lessons in class?

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9. Have you noticed any prints in your environment?

Yes

No

a. If yes, do you read these prints?

Yes

No

10. Apart from the prescribed textbook, does your teacher use any other material to teach you?

Yes

No

11. If yes, what other materials are used?

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12. What is your opinion about the use of these other materials?

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**STUDY QUESTIONNAIRE FOR TEACHERS (POST-INTERVENTION) ON
USING ENVIRONMENTAL PRINTS TO TEACH READING AT THE BASIC
SCHOOL**

This questionnaire aims at obtaining data from respondents on whether pupils have made any literacy progress after the intervention with environmental prints. The researcher would like to assure you of strict confidentiality on the information you would provide.

1. Have you noticed any changes in the literacy behaviour of your students after the intervention?

Yes

No

If yes, what are they?

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2. Will you then resort to incorporating environmental prints in your lessons?

Yes

No

3. If you were to advise on the use of environmental prints in the classroom, what will your advice be?

.....

.....

**4. STUDY QUESTIONNAIRE FOR PUPILS (POST-INTERVENTION) ON
USING ENVIRONMENTAL PRINTS TO TEACH READING AT THE
BASIC SCHOOL**

This questionnaire, which is a follow-up on the pre-intervention questionnaire aims at helping the researcher collect data from respondents on the usefulness or otherwise of environmental prints and their incorporation into the school curriculum. Please be assured of confidentiality of your response.

1. Will you say the use of environmental prints in the classroom has been useful in the teaching and learning of English?

Yes

No

- a. If yes, explain

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- b. If no, explain

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2. Would you like environmental prints to be incorporated in your curriculum?

Yes

No

a. If yes, why

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b. If no, why

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