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**FACTORS CONTRIBUTING TO CAREGIVERS'  
BEHAVIOURS WITH PRINT AND CHILDREN'S EMERGENT  
READING DEVELOPMENT IN THIKA  
DISTRICT, KENYA.**

THIS THESIS IS A RESEARCH WORK REPORTED IN THIS THESIS WAS  
PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY

**BY**

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**A RESEARCH THESIS SUBMITTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY IN EARLY CHILDHOOD  
STUDIES IN THE SCHOOL OF EDUCATION, KENYATTA  
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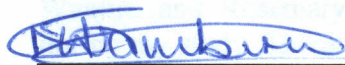


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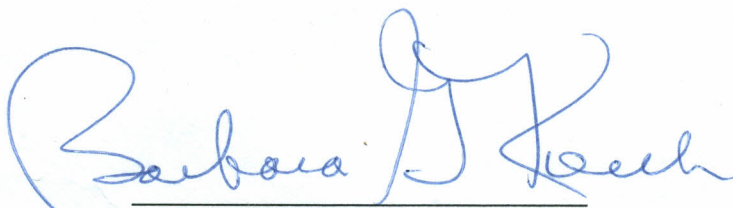
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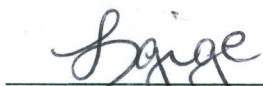
  
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## Dedication

This thesis is dedicated to:

My dear husband, Daniel Wambiri, Son, Kelvin Ngatha and Daughters Elizabeth Wanjiru and Rosemary Njoki for their enormous support and encouragement during my study. Thanks to all of you for allowing me to be away from you much of the time to complete my studies.

My twin-sister, Ngina for being there for me through out my studies.

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### **Abstract**

Reading is a developmental process that begins in infancy and continues throughout life. During the formative years children develop certain reading related behaviours that are crucial for later reading. The physical and social environment that children are brought up in influences their reading related development, their attitudes towards reading and their future success in reading. This study was an exploratory study on factors influencing caregivers' behaviours involving print with 30 to 42 months old children and children's emergent reading behaviours. The study was guided by three theoretical perspectives: Marie Clay's Emergent Literacy perspective, Holdaway's theory of Literacy Development and Vygotsky's social interaction theory. The study was conducted in Thika district, Kenya. The district was purposively selected. The caregivers and children were randomly selected. The study employed a combination of multiple case study and survey research designs. The multiple case studies generated hypotheses for study in the survey. The population of the multiple case studies comprised of four sets of 30 to 42 months old children and their caregivers. The multiple case studies showed that the home print environment and children's experiences around print materials varied across households. Caregivers employed appropriate and inappropriate behaviours and strategies around print with children. These behaviours were found to impact on children's emergent reading development. Caregivers employed more direct behaviours and strategies than indirect behaviours and strategies involving print. Caregiver-child interactions around print materials increased with increase in range and frequency of print materials in the home environment. Several factors appeared to influence caregivers' behaviours and strategies around print materials with children. This led to formulation of 13 hypotheses that were tested with the larger survey. The survey sample comprised of 133 caregivers. Hypotheses generated from the multiple case studies were studied. There were three contextual variables whose effect on dependent variables was studied: caregiver's years of schooling (CYS), caregiver's role definition (CRD) and average household income (AHI). There were three process variables: caregiver's direct behaviours and strategies score (CDBS), caregiver's indirect behaviours and strategies score (CIBS) and caregiver's total behaviours and strategies score (CTBS). CDBS, CIBS and CTBS correlated with SYS. It was concluded that caregiver's level of education influenced caregiver's behaviours and strategies. Caregivers were found to be largely unaware of their role in children's emergent reading development. There was a strong correlation between CDBS and CRD, CIBS and CRD and between CTBS and CRD. It was concluded that caregivers with a positive role definition were more likely to stimulate children's emergent reading development than caregivers with a negative role definition. There was a positive correlation between the AHI and CDBS, AHI and CIBS and between AHI and CTBS. The most important predictor of caregivers' behaviours and strategies with children around print materials was caregiver's role definition.

## Abbreviations and Acronyms

AHI	Average Household Income
CDBS	Caregiver Direct Behaviour Score
CDF	Constituency Development Fund
CIBS	Caregiver Indirect Behaviour Score
CTBS	Caregiver Total Behaviour Score
CRD	Caregiver Role Definition Score
CYS	Caregiver Years Of Schooling
ERAP	Emergent Literacy Assessment Profile
KIE	Kenya Institute of Education
NACECE	National Centre For Early Childhood Education
NAEYC	National Association for The Education of Young Children
SES	Socio-economic Status
UNICEF	United Nations Children's Education Fund

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## CHAPTER I

### INTRODUCTION

#### 1.1 Background Information

One question that researchers concerned with the development of reading have asked over decades is “when does a child begin to read”? Research worldwide has shown that reading is a developmental process that begins in infancy. According to McMahon (1996) it's never too early to begin reading to a child. The point at which children are said to begin reading can at least be considered as a point somewhere along a developmental continuum, a point that is preceded by considerable learning about reading. Thus, the ultimate antecedents of literacy behaviour can be observed in very early infancy.

Reading is an essential childhood task. Many aspects of later school success rest on this foundational skill. During the formative years children develop certain reading related behaviours that are crucial for later reading (Clay, 1966, 1975; Sulzby & Teale, 1986).

Family involvement in these early reading developments in children has been found to play a crucial role in the development of reading. There is a whole range of benefits for children whose emergent reading development is stimulated in infancy. Research conducted worldwide has consistently demonstrated that

parents play a critical role in guiding their children along the developmental path to reading which begins in infancy and winds its way through toddler hood and the preschool years (Laosa, 1982; Anderson et, al, 1985; Hiebeart, 1988, Teale & Sulzby, 1987; Vukelich, 1994 and Guofang, 1996 among others). By reading to infants, parents can help their children develop an understanding about print at an early age as infants begin to make connections between words and meaning (NAEYC, 1998). By engaging children in reading, at an early age and allowing them to observe those around them engaged in reading activities, parents can help foster a lifelong passion for reading that leads to benefits in all areas of development as the child grows older (Reading Rockets, 2005). Children develop into more efficient readers when one or both parents are involved in their reading development (McLane & McNamee, 1991; Anderson, Teale & Estrada, 1980).

Children who have not had their caregivers involved or whose caregivers are involved in inappropriate ways in their reading development join pre-school more disadvantaged than those whose parents were appropriately involved (Goodman, 1986). Such children may have less reading related skills such as ability to turn pages from right to left on a book, ability to move eyes from left to right across a book (left-right orientation), awareness that symbolized print conveys meaning and knowledge about the uses of print (Ramsburg, 1998). These children may also have less interest and motivation to read (Lancy, Draper & Boyce, 1989). High

interest readers at school have been found to have considerable literacy experiences at home (Lomax, 1976).

The kind of reading environment, a child is brought up in influences his or her attitude towards reading which in turn can be a strong influence on their motivation to read (Ramsburg, 1998). According to Ramsburg (1998), a child that is brought up in a low literacy environment or one that is not reading – friendly often develops a negative attitude towards reading and is more likely to experience difficulties in learning to read than their counterparts. The seemingly simple task associated with beginning formal reading instruction can be problematic for the child who enters preschool with meagre literacy experiences. This is because although learning to read is natural (Smith, 1971; Goodman, 1980 cited by Gollasch, 1982), it is a complex process that requires the existence of appropriate conditions and supportive strategies that enhance the development of necessary skills and attitudes.

Thus, children who enter preschool without favourable reading-related experiences stand high risks of developing reading problems. According to Snow, Burns and Griffin (1998) preschoolers whose homes provide fewer opportunities for acquiring knowledge and skills pertaining to books and reading are at a higher risk for reading difficulties than those whose homes afford a richer literacy environment. Since reading is the media through which other academic subjects

are learned, reading problems are highly significant and contribute to failure in school.

In Kenya, there has been much attention paid to reading development at preschool and higher levels. Policy makers involved in the education of young children in Kenya advocate highly the role of parents in children's activities at home. This is clearly seen in the Preschool Guidelines (K.I.E, 1997), which clearly spells out the role and importance of parents. A section of this document state:

“The home is the best place for children to grow, develop and learn. The home provides the foundation, on which future learning depends. The parents are the first and most important caregivers and educators of their children” (K.I.E, 1997, pg. 12).

However, until now there has been little emphasis in Kenya on the importance of family involvement in emergent reading development before formal schooling. Indeed until recently, early reading-related development can be said to have been hardly noticed. Reading and literacy in general have not been seen as something useful for the infants and toddlers. One reason is because developmentally the lens of the child's eyes is not mature and they cannot focus on small print. However, there may be pre-reading activities unknown to most

parents that can be done with infants to facilitate learning but are not done because of their lack of awareness.

All children are expected to learn to read in primary school and to have developed pre-reading skills while in preschool. Children, however, enter preschool with varied literacy experiences that impact their capacity to develop these skills. The nature of literacy experiences and adult-child interactions around these experiences may have a bearing that could explain difficulties experienced by some children in preschool pre-reading skills and later reading.

The issue of family involvement in children's reading related development during the years before preschool entry requires thorough investigation. Reading being a pivotal instrument in education should be given due consideration by parents, caregivers and others at the earliest opportunity in order to ensure success in pre-reading activities during preschool and subsequent conventional reading.

## **1.2 Statement of the Problem**

Reading is a process that begins in infancy with the development of emergent reading behaviours (McMahon; 1996). Family involvement in these early years plays a significant role in enhancing this development. Children develop into more efficient readers when significant adults stimulate their emergent reading

development (Clay, 1966, 1975; Sulzby & Teale, 1986).

Research conducted internationally in the recent past has shown that adults play a crucial role in children's emergent reading development before the onset of formal reading instruction (Lomax, 1976; Anbar, 1984; Sulzby & Teale, 1986; Vukelich, 1994; Neufield, 1997). In addition to physical environment that children are brought up in, the kinds of social literacy environment influence their attitudes towards and interest in reading. These in turn influence their motivation and later reading success.

In Kenya, much attention has been given to reading developments during formal schooling (Kiugu, 1977; Obondo, 1984; K.I.E, 1997). However, little emphasis has been given to early reading related development and the role of caregivers in this development. Considering the importance of reading, there is a need to explore family practices that impact on children's emergent reading development. Parents may not be stimulating their children's emergent reading development and consequently, children may join preschools disadvantaged. This may impact on their later success in reading and other academics.

Most of the studies existing elsewhere, for instance, Anbar, (1984), Sulzby and Teale (1986), Vukelich (1994) and Neufield (1997) have used parental self-reports concerning how they interact around print with their children. Whereas

these studies shed some light on early reading related stimulation and family practices, this methodology does not adequately capture the actual practices and behaviours that parents engage in with their children. These reports may or may not reflect the actual parent-child interactions around print. This could lead to wrong conclusions about parental role in children's emergent reading development.

Without accurate knowledge of the social literacy environment in terms of the behaviours and strategies employed by parents with their children around print, it's not possible to develop relevant policies and programs for children's emergent reading development. Consequently parents and caregivers may not effectively stimulate their young children's early reading development by providing suitable experiences and environment for children's holistic development. The self-report measures of family involvement also have another drawback. They tend to be close-ended surveys that cannot fully capture the dynamic nature of family involvement in children's reading related experiences. Many of these processes and interactions could be better explored through open-ended naturalistic observation techniques, which would produce rich data on the parent-child interactions and relationships that help to understand the quality of involvement fully.

In light of the above limitations and the significance of family involvement

practices, there is a great need for an in-depth study exploring caregiver involvement in infant and toddler children's reading related development in Kenya. The current study made efforts to overcome the limitations within existing research on emergent reading.

### **1.2.1 Purpose of Study**

The purpose of this study was to explore the behaviours and strategies employed by caregivers with children around print materials and children's emergent reading development. The study explored children's emergent reading behaviours, caregivers' behaviours and strategies with children around print materials and factors influencing these behaviours. Specifically, the study investigated the following:

- 30-42 months old children's emergent reading behaviours
- Types of direct and indirect caregivers' behaviours with print
- Extent to which caregivers and children initiate interactions with children around print materials
- Factors that influence these caregivers' behaviours and strategies with children around print materials.

### **1.3 Research Objectives**

This study was conducted in two phases. The research objectives for two phases of study were as follows:

### 1.3.1 Research Objectives for First Phase of Study

- (1) To explore the household characteristics including the family background, physical background, and home print environment.
- (2) To determine the behaviours and strategies employed by caregivers with 30-42 months old children around print.
- (3) To determine the direct and indirect caregivers' behaviours and strategies with children around print materials
- (4) To determine the extent to which caregivers and children initiated interactions around print.
- (5) To explore 30-42 months old children's emergent reading behaviours.
- (6) To explore the barriers and constraints facing caregivers' behaviours with 30-42 months old children around print

### 1.3.2 Research Objectives for the Second Phase of Study

- (1) To describe the subjects according to the level of education, caregiver role definition and average household income.
- (3) To determine the relationship between caregivers' use of direct and indirect behaviours and strategies
- (5) To determine the relationship between caregivers' level of education and their behaviours and strategies with children around print.
- (6) To determine the relationship between the average household income and caregivers' behaviours and strategies with children around print.

- (7) To determine the relationship between caregivers' role definition and caregivers' behaviours and strategies with children around print.
- (8) To compare the predictive values of caregivers' level of education, caregivers' role definition and average household income to caregivers' behaviours and strategies with children around print.

#### **1.4 Research Hypotheses**

The following research hypotheses were generated from the first phase of study and tested in the second phase.

- (1) Caregivers' direct and indirect behaviours in relation to print differ across households
- (2) Caregivers' direct and indirect behaviours in relation to print are related to their level of schooling
- (3) Caregivers' direct and indirect behaviours in relation to print are related to their role definition
- (4) Caregivers' direct and indirect behaviours in relation to print are related to the average household income
- (5) Caregivers' level of education, caregivers' role definition and the average household income equally predict caregiver's behaviours and strategies with children around print.

### **1.5 Significance of the Study**

This study provided useful information that will be used to promote children's emergent reading. These findings, if translated into practical suggestions will go a long way in supporting early literacy development. This information will be used in developing awareness programs to educate families on how they can empower their young children for preschool pre-reading activities and subsequent formal reading and instruction.

The study provided information on strategies used by caregivers in promoting young children's emergent literacy. Educators and policy makers will make use of these findings to make policies that support caregiver involvement in children's reading with the aim of providing lasting solutions to the issue of reading readiness among preschool entrants and later reading development. This information will also be useful to curriculum developers. They will use this information to develop appropriate training programmes for caregivers and those who are directly involved with infants and toddlers.

In addition this study will be of use to the science/discipline of reading. It has suggested research issues in emergent reading, children's early stimulation and family practices that need to be addressed for a more comprehensive understanding of children's early reading development.

### 1.6 Scope and Delimitation of the Study

Factors affecting 30-42 months old children's reading related development might vary from one linguistic group to the other. This study was conducted with households from Ruiru Municipality, Thika District. These results therefore cannot be generalized to other populations that are not similar.

There are various factors that influence caregiver's behaviours and strategies with 30-42 months old children around print. This study only focused on the effects of three specific caregiver factors: caregivers' level of education, caregivers' role definition and average household income. This study did not therefore provide information on the contribution of other factors that may also have a possible impact on caregivers' behaviours and strategies with children around print. Future research may investigate the contributions of these other factors.

A substantial proportion of young children in Kenya are left under the care of other caregivers while parents go to work. Such children spend considerable amount of time with such caregivers. The behaviours of these caregivers and the way they interact with children could influence children's reading development in a positive or negative way as much as or more than their parents. This makes these other caregivers crucial players in the family involvement practices. They may therefore have some significant contributions to children's emergent reading development. Any comprehensive study of family involvement in children's

reading development should, therefore, incorporate the other caregiver involvement.

This study focused on the child's main caregiver. In some households, 30-42 months old children are taken care of by hired caregivers. It was anticipated that in some cases there would be changes of caregivers due to hiring and firing of house helps. The researcher interviewed the current caregiver who had stayed with the child for a period of at least one month. The study eliminated any surrogate caregiver who had not been with the child for at least one month. This was done to ensure that only those caregivers who were accustomed to the child were studied.

Among the Kikuyu community, some of the areas in the home like the bedrooms are considered private. Visitors and other people that are not close associates of the family are not expected to get into such rooms. This study focused on the caregiver-child interactions occurring in the living room, the kitchen, washing area, laundry, garden and any other accessible place.

### **1.7 Assumptions of the Study**

In this study it was assumed that majority of the 30-42 months old children in the studied population are left under the care of parents, siblings, relatives or hired house helps. Consequently the behaviours of these household members may

contribute significantly to children's emergent reading development as the children spend most of their time while awake with them.

## **1.8 Theoretical Framework**

The focus of this study was early reading related developments. To understand these developments the study employed the emergent literacy perspective. Children's early reading related developments occur without any formal reading instruction. This occurs within a social context mainly with the help of adults. Holdaway's (1979) theory of literacy development was employed to explain how adults help a child to develop reading-related skills in the absence of formal reading instruction. Vygotsky's (1978) theory is used to support the understanding of the adult-child interactions in the development of reading.

### **1.8.1 The Emergent Literacy Perspective**

Marie Clay was the first pioneer of the emergent literacy perspective. Clay (1966) first introduced the term emergent literacy to describe the behaviours used by young children with books and when reading and writing, even though the children do not actually read and write in the conventional sense. Emergent literacy characterizes the early literacy activities/experiences as part of a continuum of reading development. Emergent literacy consists of skills, knowledge, and attitudes that are thought to be precursors to conventional reading and writing (Whitehurst & Lonigan, 1998). Rather than there being a point in time,

when a child is ready to read and write, emergent literacy suggests there are continuities in children's literacy development (Clay, 1975). According to Clay (1991), literacy development begins before children start formal instruction

Since Clay's introduction of the perspective, an extensive body of research has expanded the understanding of emergent literacy. Reading and writing develop at the same time and develop interrelatedly in young children rather than sequentially (Teale & Sulzby, 1986; Idaho Center on Development Disabilities, 1996). Children develop reading and writing as they actively engage with adults in reading and writing experiences, as they explore print on their own and as they observe others around them engaged in literacy activities (Teale & Sulzby, 1986).

Emergent literacy, therefore, develops in social contexts. The child is an active constructor of literacy concepts through interactions in the environment and with other people. Children have also been found to pass through general stages of literacy development in a variety of ways and at different ages (Teale & Sulzby, 1986; Idaho Center on Development Disabilities, 1996). Researchers in this body of research agree on the following issues about emergent literacy:

- It begins before children receive formal reading instruction (Teale & Sulzby, 1986; Clay, 1991; Snow, Burns & Griffins, 1999).
- It encompasses learning about reading and writing prior to schooling (Sulzby & Teale, 1991; Ramsburg, 1998).

- It is nourished by social interactions with caring adults and exposure to literacy materials (Sulzby, 1991).
- Children acquire literacy skills in a variety of ways at different ages (Strickland & Morrow, 1988; Ramsburg, 1998).

The term “emergent” denotes that literacy acquisition is a developmental process. Emergent literacy differs from conventional literacy since it encompasses the range of settings and experiences that support literacy (like the print materials available in the home and the interactions that occur around these materials through which children learn about reading) and the role of the child’s contributions and the relation between individual literacy outcomes and diverse experiences that precede those outcomes (Bolander, 1998). This study explored the caregiver-child interactions in the child’s home environment.

### **1.8.2 Holdaway’s Theory of Literacy Development**

Holdaway’s (1979) theory of Literacy development was arrived at from observations of home environment in which children learned to read without formal instruction. He contends that literacy development in these homes occur through activities in environments that are rich with materials. Supportive adults intervene in their children’s development. They do not use direct verbal instruction to teach children how to perform a skill. Rather they provide an emulate model of the skill and encourage the child to perform an activity which leads to the use of

the skill. Through immediate rewards this activity is refined resulting in development of literacy skills.

Four processes enable the child to develop ability to read and write: observation, collaboration, practice and performance (Holdaway, 1986). In the first process, observation, the child observes literacy behaviours – such as seeing someone reading or writing, turning pages, being read to. The second process is collaboration. This involves interaction with an adult. For example an individual who reads to the child with enthusiasm or makes the reading activity fun thus motivating the child, or even helps the child by answering their questions.

The third process is practice in which the child now tries out what he or she has learned without adult direction or supervision. For example, a child who saw an adult turning the pages in a book may take a book and try to turn pages. A child may also pretend to read by mumbling as he or she moves along a line of print in a book.

Finally, in the fourth process, performance, the child does what he or she has learned in the presence of supportive adults who encourage him or her. A child for instance may look at pictures of familiar objects in a book and say words randomly. A helpful adult can then help the child to say the words more systematically by pointing at the relevant picture as he says the word.

The outcome of these four processes is that the child develops literacy skills and attitudes that become an important foundation to successful reading. The child develops pre-reading strategies and beliefs that support the development of reading. This theory sheds light on the importance of the child's experiences and environment before formal reading instruction.

This theory is therefore an important basis for the present study. It points out the importance of the print environment in infancy and the significance of adult-child interactions within this environment. These two elements were the main focus of the present study. This study explored the print materials in the home environment and how caregivers interacted with the children around these materials.

Adult-child interactions are a key component of the reading process during early childhood. One therefore needs to look at social interaction as explained by Vygotsky to comprehend fully the adult-child interactions, as this is a key concept in this perspective. Discussion of this theoretical perspective follows.

### **1.8.3 Vygotsky's Social Interaction Perspective**

Language develops in the context of social interactions. As one of the major social interaction theorists, Vygotsky (1978) holds a central belief that language is a social activity; one that arises from the desire to communicate with others and that

is nurtured in social interactive contexts. According to Vygotsky (1978), no development takes place unless children are actively engaged with the world around them. This world includes the rich and meaningful conversational exchanges between children and others.

Vygotsky states that children learn higher psychological processes through their social environment and specifically with adult guidance within a child's "Zone of Proximo Development". The Zone of Proximo Development refers to the difference between what a child is able to do without assistance of others and what he is able to accomplish by having someone more expert assist at key points (Vygotsky, 1978).

Children strive to learn about print materials in their environment. They do not do so in social isolation. Their efforts are embedded in a social context, where parents, older children and others try to guide by providing challenges for new learning, offering assistance with tasks that may be too difficult, providing instruction and supporting the child's interest and motivation. Thus children will acquire reading behaviours by interacting with adults. These interactions should be within the child's Zone of Proximo Development if the child is going to benefit from them. For example a child can only learn to turn book pages if he has some hand control.

A key concept of Vygotsky's theory is scaffolding (Neuman & Roskos, 1993) where the adult supplies the framework for children to succeed in activities that are slightly beyond their ability. According to Berger and Thompson (1995), scaffolding involves sensitively structuring a child's participation in learning encounters so that the child's learning is facilitated. This concept has a major application to the caregiver-child interactions around print materials. Sensitive caregivers structure their interactions with the child to help them acquire knowledge or develop an emergent reading behaviour. For example, the caregiver may ask or answer children questions in ways that help them to understand the functions of print.

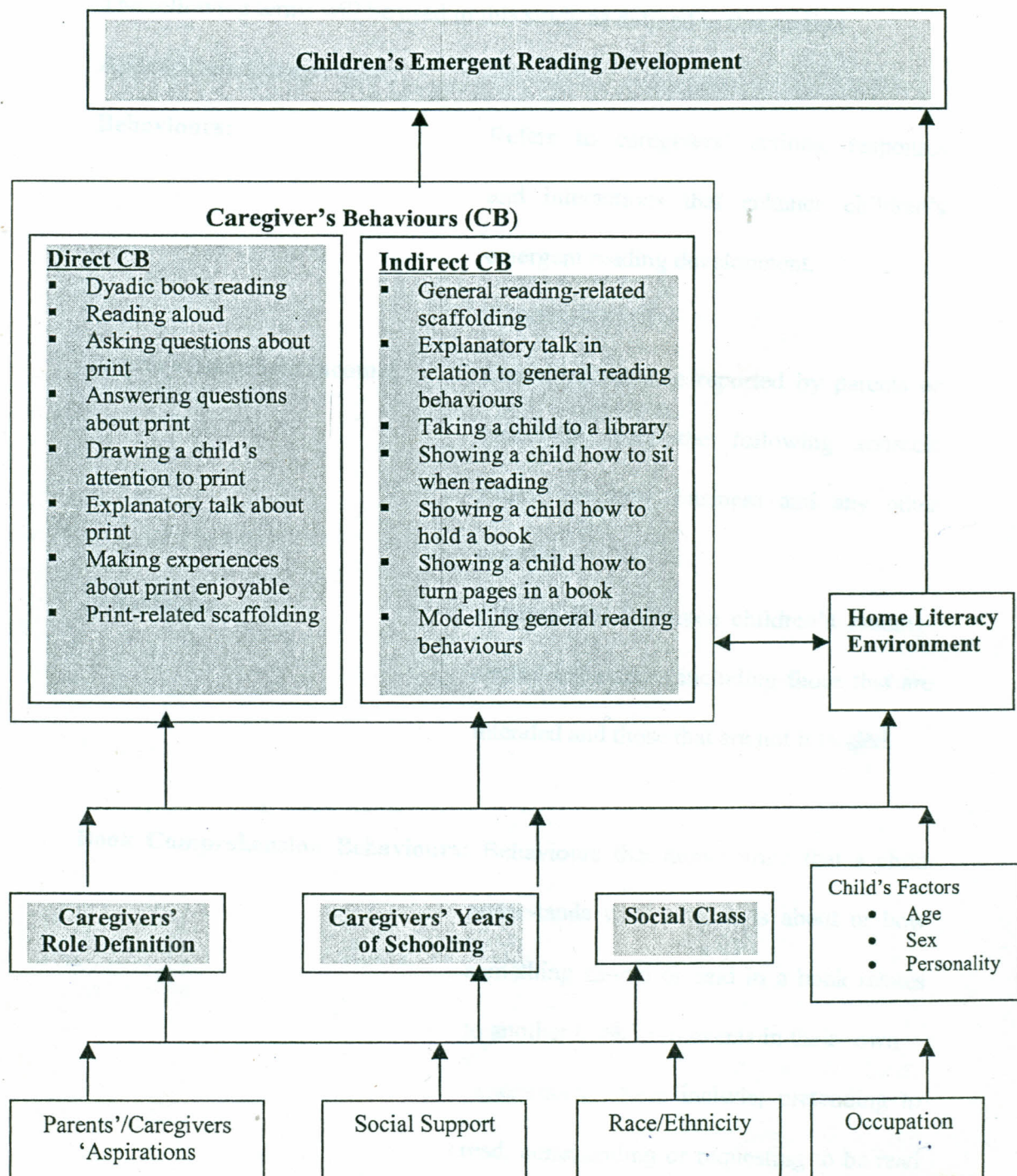
Vygotsky's theoretical orientation leads to a social approach to reading in which the child interacts with the more developed reader. Both the child and the adult are actively involved in the tasks. Such interactions occur when children interact with adults around print materials. Adults direct children's attention and provide assistance to help children learn to perform certain skills. Soon such children learn to perform the skills on their own. By engaging children in a context of guided participation, the more developed reader is able to teach the child skills such as book handling behaviour (such as knowing the correct book orientation and how to turn pages in a book), concepts about print (such as knowing that printed words mean something, recognizing print on signs, books and other places) among other emergent reading behaviours. Emergent reading development cannot take place,

therefore, without meaningful adult-child interactions. To understand children's emergent reading development requires an understanding of these interactions and how they relate to reading related behaviours.

### **1.9 Conceptual Framework**

There are three levels of variables involved in the children's emergent reading development process. Contextual factors including caregivers' years of schooling, caregiver role definition and social class are influenced by personal factors like caregivers' aspirations for the child, social support, race/ethnicity and occupation. The contextual factors then influence the process variables: the home literacy environment that parent and other caregivers provide for children and the behaviours that they employ around literacy environment with their children. These process variables subsequently influence children's emergent reading behaviours. This study focused on (1) three contextual variables: Caregivers' level of education, caregivers' role perception three process variables concerning caregivers' behaviours and strategies and four dependent variables: Frequencies of four categories of children's emergent reading behaviours.

**Figure 1.1: Factors Influencing Children's Emergent Reading Development**



### 1.10 Definition of Operational Terms

The following terms will be used in this study as defined in this section

#### Appropriate Caregiver

#### Behaviours:

Refers to caregivers' actions, responses and interactions that enhance children's emergent reading development.

#### Average household income:

Combined revenue reported by parents or guardians from the following sources: salary, property, business and any other sources.

#### Behaviours:

Actions that influence children's reading-related behaviours including those that are intended and those that are not intended.

#### Book Comprehension Behaviours:

Behaviours that demonstrate that a child understands what a book is about or how something shown or said in a book relates to another book or to events in their own experiences. These include; pretending to read, commanding or requesting to be read to, performing an action that is shown or

mentioned in a book, etc

**Book-Handling Behaviours:**

Behaviours that relate to the knowledge children have about the common characteristics of books. These behaviours include; grasping book with the hands and brings to the mouth to suck or chew, shaking crumbles and waves book, deliberately tearing paper pages, tearing book accidentally due to difficult in handling, etc.

**Book Print:**

All print materials in form of books, magazines, newspapers and Bibles

**Caregiver:**

Refers to the child's main care provider including parents, siblings, other relatives and hired house-helps.

**Caregivers' Years of Schooling:**

Total number of years completed in primary school, secondary school and tertiary level, ranging from 1 year for completion of primary standard 1 to 18 years for completion of post graduate degree.

- Caregiver Role Definition:** The scores related to their self-reports about their perceived role in assisting their children's emergent reading development.
- Direct Caregiver Behaviours:** Caregivers' actions, responses and interactions with children that are based on print, including drawing the child's attention to print, reading to children e.t.c.
- Emergent Reading:** Refers to all the skills, Knowledge and attitudes about reading that children develop before formal reading instruction.
- Environmental print:** Refers to print that is encountered outside of books that is a pervasive part of everyday living.
- High-Literacy Environment:** An environment in which children have access to a variety of literacy experiences.

## Home Literacy Environment

**(HLE):**

Refers to all the print materials available within the child's home environment that provide reading-related experiences to the children.

**Home print:**

Refers to all print materials found in the home environment

**Inappropriate Caregiver Behaviours:** Caregivers' actions, responses and

interactions with children that hinder emergent reading development.

**Indirect Caregivers' Behaviours:**

Caregivers' actions, responses and interactions that are reading related but are not based on print, including showing a child how to hold a book, showing a child how to turn pages in a book, e.t.c.

- Literacy Materials:** Refers to all print materials such as books, magazines, drawings, pictures, photographs, signboards, posters, labels, logos.
- Low-Literacy Environment:** An environment in which children have little or no literacy materials.
- Negative Role Definition:** Refers to caregivers' perceptions that do not accept that they should be involved in their children's reading-related development.
- Picture Reading Behaviours:** This group of behaviours describes ways in which children may interact with pictures in books. They include; Intensely looking at pictures, laughing or smiling at a familiar picture, etc

**Story and Book Comprehension Behaviours:** Behaviours that demonstrate that

a child understands what a book is about or how something shown or said in a book relates to another book or to events in their own experiences. These include; pretending to read, commanding or requesting to be read to, etc.

**Strategies:**

Refers to the tactics that caregivers employ with children around print that are likely to influence children's emergent reading development positively or negatively including modelling reading, motivating children to manipulate books or print etc

**Positive Role Definition:**

Refers to caregivers' perceptions that accept that they should be involved in their children's reading-

related development.

**Reading-Friendly Environment:** Environments in which children are encouraged to manipulate and to explore print materials.

**Story Reading Behaviours:** These behaviours refer to children's verbalizations in interaction with the story in a book and with the child's dawning awareness that the words said when reading a book are printed in the book. These behaviours include: using book babbles, filling in the next word in the text before the adult reads it, reads to dolls or to someone, etc

## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter contains a detailed review of the literature related to this study.

This is presented in sections as follows.

#### 2.1 Areas of Literacy experiences

##### 2.1.1 Home Literacy Environment and Reading Development

##### 2.1.2 Parental Strategies and Behaviours Surrounding The Literacy Environment

#### 2.2 Factors influencing literacy experiences during infancy and toddler hood

##### 2.2.1 Personal and Psychological Factors

##### 2.2.2 Social-cultural and Contextual factors

#### 2.3 Summary

#### 2.1 Areas of Literacy Experience

There are two areas of literacy experience that are very important in the development of reading. These are (1) the home literacy environment and (2) parental strategies and behaviours within the literacy environment.

##### 2.1.1 Home Literacy Environment and Reading Development

Several studies in developed countries have looked at the child's home environment in relation to the literacy experience it provides. Most of these

studies have been conducted in the developed countries where the importance of emergent literacy was first recognized. These studies have shown that children who have had limited exposure to print are often disadvantaged in beginning reading.

Various studies show without doubt that experience with books at home has a facilitative effect on children's reading development. Specifically, a study by Scarborough, Dobrich & Hager (1991) examined the relation of preschool development and literacy activities in children's homes and related these to children's reading achievement. They found that by the time of entry to school, poor readers had less experience with books and reading than those children who later became better readers. Another Study that highlighted the importance of home experience in reading was conducted by Nova (1996). She found that early book reading behaviours and parent mediation of early book reading were predictive of later reading. Parents reading books and stories to or with children have also been reported to influence later reading ability (Wachs, 1979; Tizard, Scheffield & Hewison, 1982).

Other related studies have examined the importance of access and involvement with print. In one interesting review by McQuillan (1997) on the acquisition of alphabetic principle, it was found that at the time of this review about 12% of American children learnt to read before school entry and without formal

instruction. It was further noted that that children who learned to read “early”, that is before school entry, usually did so without systematic, explicit meta-linguistic instruction. Similarly children who learned to read “late”, that is well after their age peers had began reading, also did so without any formal instruction and with no long-term damage to their reading proficiency. Both groups, however, had a rich access to print materials, which facilitated their literacy acquisition and development. This study is a clear indication of the powerful effect of exposing children to a rich print environment before formal reading instruction. McQuillan however, did not indicate the kinds of interactions that the “early” and “late” readers had with adults. It’s therefore not possible to ascertain the contribution of any other factor rather than access to print in the child’s ability to read.

Another study shows that parental techniques/strategies including answering children’s questions about books, making reading sessions with children enjoyable, encouraging pretend reading and reading aloud to children play a significant role in children’s reading development. In a study conducted by Anbar (1984) an investigation was carried out on preschool children who learnt to read with no formal systematic instruction but with parental assistance. Six early readers ranging in age from 2 years, 9 months to 4 years 10 months were studied. These children reportedly had no systematic reading instruction. However their parents reported to have been involved in this development. They

reported that their help was spontaneous, intuitive and unplanned. They also reported to have used a large variety of techniques to teach and facilitate their children's reading development. The nature of the adult child's interactions surrounding children's literacy experiences is therefore an important factor in children's reading development.

Vukelich (1994) provides further evidence for the importance of adult-child interactions in children's reading development. This study showed that print environment alone, without appropriate adult-child interactions, cannot facilitate reading development in children. Another study by Neufield (1997) reported that parents play an important role in the literacy development of their children by providing opportunities for interaction with print. Hughes (1993) explored literacy related home experiences of preschool children and correlated these with literacy skill at school entrance. She found a significant correlation between literacy-related home experiences and literacy skill level at school entrance. Results of the Hughes study supported the concept of emergent literacy: that literacy skills emerge over a long period of time beginning at birth. Hughes' study also supported the idea that children learn through active engagement in experiences in real-life settings.

Lee (1993) tested the hypothesis that early parental involvement in children's learning activities is a significant predictor of children's literacy readiness. In

this study four variables were explored: (1) the incidence and duration of reading activities provided by parents to children since birth, (2) the incidence and duration of oral language interaction between parents and children, (3) the availability of literacy materials provided by parents, and (4) the extent to which parents were model readers. All the four variables studied significantly enhanced 4 – year old children's literacy readiness. This study did show the significance of parental involvement in children's reading development.

Another way in which home literacy experiences have been found to influence reading development is in developing interest and motivation to read in the child. A study by Wan-Guofang (1996) examined the home and school read aloud experiences of a 3 – year – old Chinese and English bilingual child. The child was studied for 2.5 years at home and half a year at school. This child was found to have a supportive environment at home in terms of daily literacy experiences, adults' beliefs and assumptions of literacy and social uses of literacy at home. Although there were differences in the language used at home and at school, the read – aloud experiences at home fostered the child's love for books from a very young age. These experiences also taught her useful and basic literacy strategies and prepared her for school reading experience.

Lomax (1976) did another study in this topic. In this study, nursery school children's interest in books and stories at school was compared to their activities

at home. It was found that all the high interest children had considerable experience of stories at home. This study shows that the home literacy experiences that incorporated story reading foster interest in reading that is carried on to formal reading.

All the studies described so far suggest that home literacy environment positively influences children's reading related development from the time a child is born. This development enhances reading ability at preschool entry and during later formal reading instruction. However the results from a study by Carson (1998) did not support these findings. In this study family support for literacy did not significantly affect early reading achievement. This study and all the others that I have described measured children's home literacy experiences using parents' reports. These reports may be subjective. Parents may favourably report the home environments they provide for their children and exaggerate their involvement thus distorting the data. In order to avoid such distortions, there is need to make use of objective measures like observations which would confirm or disapprove distorted information obtained from parents. A few studies have made use of observations.

The study by Lomax (1976) obtained nursery school staff ratings of the frequency with which children engaged in the various book-related activities. The researcher had with the help of a research assistant observed the children in

several book areas at school, a few weeks before collecting data from staff. The staff ratings of the frequencies with which children engaged in the various activities did not agree with the observations. Only 41.2% of the children said to engage in a particular activity every day were observed doing so suggesting that the staff reported frequencies were over estimated.

These findings suggest that there is need to carry out actual observations of the literacy environment provided at home and the parent-child interactions surrounding this environment in order to obtain accurate data about children's literacy experiences at home. Only such objective measures of home literacy environment and children's literacy experiences would be reliable.

Other useful observational studies have been conducted as case studies of researcher – parents' children (Hoffman, 1982; Lass, 1982 and 1983; and Granucci (1986). In one study, Hoffman (1982) observed the development of reading related behaviours in his son over a two – year period between the ages of 2 years 6 months to 4 years 6 months. This description was based on a detailed description of the developmental process based on daily observations in the home recorded in a parent diary, audio records and artefacts such as print samples, drawings and dictated stories. Hoffman recognized three categories of reading behaviours of his son: (1) 'Reading –wise' behaviours including book handling, pretend reading, attachment to books, grouping books, (2) 'Book –

reading' behaviours such as activities closely related to the reading ritual, and (3) 'Early Reading – print' behaviours including children's early experiences with encountering print and words. He found that the child's development of literacy skills did not follow a neat sequence of one skill followed by a more complex skill. Rather, the child's behaviours spiralled constantly. The child had his own timetable for learning which the researcher encouraged to be largely self-initiated and self structured and frequently self-terminated. The researcher suggested that children's reading at home should be naturalistic and holistic and should be child centred. It should respect the child, his interests and style.

In a similar case study, Granucci (1986) observed literacy development in her son between 24 and 36 months of age. She concluded that the roots of complex literacy skills are already evident by the age of 36 months in an environment that provides varied encounters with reading and writing in a spontaneous, child directed way.

In another interesting case study, Lass (1982 and 1983) kept a record of her child's literacy oriented behaviour from birth. After only a few weeks her child, Jed was staring at printed 't-shirts', scanning newspapers and generally noticing print phenomena. At three months Jed was using books as playthings while at six months he was spending short periods looking at books. At 9 months he was able to turn pages and was engaged in sustained periods of looking at books as

well as listening to them being read. At 13 months Jed had favourite books and was bringing books to adults. At 16 months, he was watching his parents write and a month later, he could locate signs and letters in books and on the television. At 19 months, he was scribbling over letters as he identified them. At 20 months, he requested only ABC and number books. When two years old Jed was matching letters, pretending to read titles on books and identifying products from their logos. Although it might be argued that Jed was just an exceptional child, it is evident that he had literate parents who surrounded him with books, read to him and generally reacted in ways which encouraged him to pay attention to print in his environment.

All the three case studies cited suggest that child's reading development begins from birth and that the child's literacy environment is important for this development to take place. In all these studies the environment explains to a large extent the child's literacy awareness. It is also evident that the parents had a role to play in their children's reading development.

However, each of these case studies involved only one subject. We certainly cannot generalize too much from one subject observational case studies. There is therefore need to conduct observational studies with adequate samples to provide useful and reliable data, whose findings can be generalized.

Studies have identified specific caregiver strategies and behaviours that enhance children's emergent reading development.

### **2.1.2 Parental Strategies And Behaviours Surrounding The Literacy Environment.**

Although access to print facilitates reading development, the adult-child interactions surrounding the book activities are very important determinants of children's reading development. Simply involving children in book-related activities cannot fully enhance reading development without suitable adult-child interactions. Various kinds of interactions have been found to impact on reading acquisition and development.

Asking and responding to questions is a principal aspect of adult - child interactions (Durkin, 1966). As children manipulate books and other reading materials, they encounter a lot of questions. A study by Yaden and Wiseman (1984) of the interactions during parent-child reading revealed that two children asked at least a thousand questions about print and books over a period of seven years. Children cannot progress in their reading related development if their many questions are not answered appropriately. According to Teale (1978) the frequency and manner of responding to children's questions is an important parental influence on early reading ability.

Another strategy that has been found to influence reading development is dyadic book reading where parents read to and with children. Reading aloud to children has emerged as a key component in facilitating early reading acquisition (Hiebert, 1988; 1990; Teale & Sulzby, 1987). Correlation studies have also documented a positive relationship between reading to children and subsequent success on reading readiness tasks (Chomsky, 1972; Laosa, 1982; Anderson et al; 1985). Further substantial evidence documents those children who are read to acquire concepts about functions of written language in books (Mason & Allen, 1986; Hiebert, 1988).

Some researchers have attempted to find out the essential nature of what transpires during storybook reading. It has been found that story book reading practices are characterized by routines that help to explain how storybook reading contributes to children's reading development (Sulzby & Teale, 1991). These routines are largely determined by the adults who act as a scaffold, initially controlling those elements of the task that are beyond the child's' ability, then gradually guiding and confirming the child's independent attempts at decoding (Mason & Allen, 1986; Sulzby & Teale, 1991). In another study, Lancy, Draper and Boyce (1989) describe the parents of good readers as using expansionist strategies that include graduated support such as scaffolding as children attempt to understand stories. On the other hand, parents of poor readers used reductionist strategies that focused upon decoding.

Another useful strategy in children's reading development is making reading an enjoyable experience. Caregivers should avoid strategies that encourage frustration among children in the reading activity. According to Baker, Scher and Mackler (1997) parental emphasis on reading as entertainment rather than as a skill helps children to develop a positive attitude to reading. This has also been shown by Lancy et al (1989) who found that parents of poor readers viewed the reading activity with children as a serious job and expected the child to master it. This caused anxiety and frustrations to those children who failed to accomplish the task. Children did not enjoy the whole experience. Instead they were discouraged and thus disliked reading. The child who finds reading a painful experience is likely to avoid books. Lancy and Bergin (1992) found that children who are more fluent and positive about reading came from parent-child pairs who made reading activities fun and encouraged questions and humour while reading. The child who learns to enjoy reading is likely to ask for books later and to seek their parent's attention much more often. Such a child will learn more about books and about reading thus developing reading skills faster than the child who becomes frustrated by reading experiences. The researchers suggested that parents should use strategies that promote positive feelings about books and about reading to foster reading development.

Another useful parental strategy is explanatory talks during reading and in other activities such as meal times and play times (Snow & Goldfield, 1983; Beals, 1992; Beals & De Temple, 1992). These studies indicate that explanatory talk plays a greater role in predicting children's later reading achievement in school and in reading tests than simply reading to children. During infancy and toddlerhood children need a lot of explanations: for instance, why books are handled the way they are handled, why read the page that's on the upper side, why turn pages from right to left and why read from left to right across a page.

Other research has further shown that the aspects of explanatory talk which seems most relevant are comments such as those associated with predictions, such as predicting what will happen to characters in a story, elaboration and linking new ideas to previous experiences (Kleeck, 1990). According to Kleeck, parents of early readers and parents of children who are successful in school do more than read books. They guide children to relate the information from books to other events and engage them in discussing, interpreting and making inferences.

Caregivers also enhance young children's reading development by providing models of reading (Morrow O'Connor & Smith, 1990). When parents read books, magazines, labels, logos and other materials they serve as reading models to their children. Children observe and imitate important practices and skills that

are useful in their development of reading: for instance how to hold a book, how to turn pages etceteras. Parents' behaviours during the reading experience with the child are important determinants of the child's reading development.

A study by Lee (1993) identified the significance of modelling reading behaviours. He studied four variables of parent involvement in children's reading activities: (1) the incidence and duration of reading activities provided by parents to children since birth, (2) the incidence and duration of oral language interaction between parents and children, (3) the availability of literacy materials provided by parents, and (4) the extent to which parents were model readers. He found that the best predictor of children's reading readiness among the four variables studied was parent model reading. This finding points out the need for parents to use appropriate and acceptable habits when reading. Parents who follow unacceptable reading habits may negatively influence their children's reading behaviours.

The studies discussed in this section show clearly that the caregivers' behaviours during literacy activities with young children determine how successfully children develop emergent and subsequent reading. Most of the studies reviewed so far have been conducted in developed countries where a lot of emphasis is placed on parent involvement. The extent of such involvement, in terms of the quality of the home literacy environment and the quality of the parents' strategies

around reading-related activities with young children, in developing countries like Kenya are likely to differ. In Kenya little or no attention has been given to emergent reading development. Consequently families are rarely sensitised about early reading related development and their role in it. The pattern of caregiver-child interactions surrounding the child's print environment and the overall literacy experiences are, therefore, likely to be different for the Kenyan child. The next section describes the studies of home literacy environment and parent-child interactions conducted in Kenya.

In Kenya, studies of family involvement in children's reading development are minimal. Furthermore, such studies have only been conducted at primary school level. Two studies (Kiugu, 1977; Obondo, 1984) have investigated parent involvement in children's reading in primary standard four and standard one, respectively. Kiugu (1977) investigated parent's involvement in their primary standard four children's English reading in Meru District. He found that a significant number of children are below standard in reading development. This was attributed to lack of English books for reading at home, failure of parents to read for their children at home, and lack of nursery school background leading to lack of reading readiness during entry to primary school among other reasons. This study although conducted at primary level and in relation to conventional reading, suggests that the home literacy environment was relatively poor. The quality of parent-child interactions was also wanting. Parents of children in this

study were not adequately and appropriately involved in their children's reading. According to Kiugu, the majority of parents in this study were semi-literate such that even when they got involved, their involvement may have been counter productive to the children's reading development. He expressed that

“...to have semi-literate parents reading to children at home means that they will mislead them .... They will be very poor teachers of the child who wants to read and talk the language fluently and confidently” (Kiugu, 1977, Pg129).

Thus, the quality of parent-child interactions in this study may have been counter productive.

Obondo (1984) conducted a study that investigated parents' involvement in their primary standard one children's reading in three schools in Nairobi. Although almost all of the parents (90%) in this study viewed parent involvement in teaching reading to their children as important, most of them reported not being involved. These parents were either illiterate or too busy to get involved in their children's reading. A significant number of them delegated this responsibility to the children's siblings or relatives living with them. Ninety-five percent of the parents reported to experience problems in helping their children read. They admitted that they did not know the right methods to use in helping their children

read. The home literacy environment of these families was also reportedly poor. Only four percent of the children reported to have read newspapers, magazines or other books rather than the schoolbooks. None of the children in the study had ever visited a library and they did not even know what a library is. Many of the parents in the study were not financially able to buy books for their children. The few able parents reported that they did not know how to choose suitable books for their children. Results of this study evidently show that the home literacy environment was rather poor and parent involvement in terms of interactions with their children was minimal and not showing a high degree of competence.

## **2.2 Factors Influencing Family Involvement.**

Literature suggests that a number of factors may influence caregivers' desire or ability to participate in children's education and development. In general these factors can be classified into two areas: (1) Personal and psychological factors and (2) Social-cultural and contextual factors.

### **2.2.1 Personal And Psychological Factors**

Several personal and psychological factors have been cited to be particularly relevant to family level of involvement in their children's education and development. These include caregiver role definition, caregivers' aspiration for

their children, caregiver self-efficacy and knowledge. Caregivers' understanding of their own roles in any aspect of children's education and development is crucial in family involvement practices. It is an important link between their individual behaviours and the child's development (Moreno & Lopez 1999).

A family that is aware of and understands and accepts its role in a particular aspect of his child's development, is likely to be more involved than a family that doesn't. Studies by Sigel (1985) and Meighan (1989) showed that parents who believed that they had a role to play in the education of their children were more actively involved than those who did not. Studies by Sigel (1985), Schaefer and Edgerton (1985) and Meighan (1989), have reported that parents who believed that they should be involved in their children's education were more likely to be involved than parents who did not accept this role definition. A study by Skuza-Richard-Louis (1997) found that parents' lack of involvement in children's education is partly due to lack of awareness of the importance of their involvement. Many times families are not aware of their role in children's development particularly in the development of reading. One reason for this is the lack of training programs that provide parents with awareness of their role in reading development.

Another factor that determines the level of family involvement is parental aspirations. Parents' educational aspirations for their children have been established as an important predictor of their involvement in their children's

education (Anderson & Johnson, 1971; Henderson, 1981; Hess & Halloway, 1984). In general parents with high aspirations for their children's educational attainment are more likely to involve themselves in their schooling than parents with low aspirations for their children's educational attainment. Such involvement would be expected to start right from home before the child goes to school.

Caregiver efficacy is another personal factor that has a direct effect on family involvement practices. Self-efficacy refers to people's expectations that they can successfully cope in particular situations (Bandura, 1977). The relationship between parental efficacy and parental involvement has been supported in several studies (Hess, 1969; Schaefer & Edgerton, 1985; Swick, 1988; Moreno & Lapez, 1999). Parents who perceive themselves as competent tend to become more involved in their children's education than the less competent counterparts. Although parental efficacy has been positively related to family involvement, it has not been widely studied in Kenya and particularly in relation to emergent reading during infancy.

### **2.2.2 Social-cultural and Contextual Factors**

Demographic variables like ethnicity, race and socio-economic status are also important in understanding family level of involvement. Several researchers have suggested that ethnicity or race is an important indicator of family level of involvement. Lynch and Stein (1987) found that Latino parents reported

significantly lower levels of involvement in their children's educational planning decisions compared to their African- American and non-Hispanic white counterparts. In another study (Moreno & Lopez, 1999) Latino mothers were reportedly less involved in their children's schooling than African- American and non-Hispanic white parents. Parents in the area of the present study have different ethnic backgrounds. These researchers did not provide information on the socio-economic factors related to the racial differences in this study that could have contributed to the parent involvement differences reported.

Another factor that influences the extent to which parents are involved in their children's development is the level of education and training. Research has consistently shown that parents' level of education and training in child development is an important indicator of their level of involvement (Crowe - Linda, 1998; Moreno & Lopez, 1999). Moreno and Lopez (1999) found that less educated Latina mothers faced greater barriers to their involvement in their children's education than more educated mothers. A study by Van-Wyk (1997) on parent involvement in their children's education showed that parents required advice on how to prepare their children for school and to support them in school. In another study, (Abrutyn -Leslye 1997) parents wanted teachers to include in teachers' newsletters; directions for helping their children learn certain skills. These studies show that one possible hindrance to effective parents' involvement is parents' lack of the necessary knowledge and skills.

In another fascinating study by Crowe (1998) parents and caregivers of six children aged three years two months to three years five months with specific language impairment were trained on using a complete reading cycle (CRC). These parents and caregivers were also taught to use language-facilitating techniques in storybook reading. This training produced positive changes in parental child interaction styles and led to increased child language productivity. This study shows that educating caregivers on effective strategies of enhancing language does not only increase adult involvement but also improves the quality of such involvement and its effectiveness.

Another factor that is of great concern in the study of family involvement is socio-economic status (SES) of the parents. Some studies (Health, 1983; Baker et al., 1994; Gasden, 1995; and Hart & Risley, 1995) have shown that all classes of parents are concerned and invest in their children's development. Heath (1983) and Gadsden (1995) have reported that low income parents sometimes make extended use of such literacy-related behaviour as story telling and singing as well as making sacrifices to financially and physically support their children's education. In contrast, another study by Hart and Risley (1995) investigated children's language development between 6 and 36 months by obtaining monthly real life samples of language use in the home. Families were classified as professional, working class or welfare. They reported that all classes of parents were concerned and invested in their children's development. However there were

strong differences in the amount of parent-child verbal interactions among families at different social economic levels. The professional parents interacted verbally with their children almost twice as much as the welfare families.

Other researchers have consistently reported higher participation in children's education among higher social economic status parents (Laureau, 1989; Epstein, 1990 Purcell- Gates, 1994). Other research reported by Anderson et al (1985) identified more books, magazines and educational literacy materials in the homes of higher income families. Purcel – Gates (1994) reported a low level of print use in low-income homes with a large proportion being for daily routine and employing simple language. Further, a study by Brooks –Gunn, Klebalor and Liaw (1995) found that low income parents provide home environments that are less stimulating than those provided by the more economically advantaged parents as indicated by the presence of fewer books and toys that teach relevant concepts such as colour, size, and shapes. In addition, to the failure to provide high-level print material, low-income parents have also been reported to model less book and magazine reading. They also tend to take their children to libraries less than higher income parents (Fitzgerald, Spiegel & Cunningham, 1991; Baker at al; 1994). Further, the SES of parents has also been reported to affect the kind of support parents give to children. According to Watson, Kuby, Kelleher and Brandly (1996) low-income parents tend to exhibit lower levels of emotional support towards their children, less supervision and monitoring. These tendencies are bound to affect

children's development in language development and all aspects of it. These studies show that the social economic disadvantaged children lack appropriate parenting strategies that are so vital to their development including emergent reading.

Perhaps improving the social economic status of most families could favourably affect their income environments and the parent child interactions thus enhancing reading development. This was clearly shown in a study conducted by Bos et al (1999). The aim of this study was to determine whether anti poverty programs could improve family functioning and enhance children's well-being. An anti-poverty program, New Hope Project was established. Social economically disadvantaged parents were randomly assigned to the program that provided job search assistance; wage supplements that raised income above the poverty threshold and provided subsidies for health, insurance and childcare. The results were that parental wealth and parent reported monitoring of the child's activities were significantly more positive for program than for control families. Results suggested that anti poverty programs could assist working families to improve their parenting strategies in ways that foster child development. The study is a clear indication that raising the social economic status of parents can enhance their involvement in children's development.

Contextual factors also influence parent involvement. Among the important

contextual factors that influence parental involvement is social support. Research suggests that parent's social support systems enable them to involve themselves in their children's schooling (Clark, 1983; Epstein, 1990). Social support includes familial support, support from friends and others.

### **2.3 Summary**

This chapter presented a review of studies related to the current study. Studies reviewed show that there are factors that influence the extent and quality of parent's involvement in young children's development. Some of these included the richness of the home environment in terms of print materials, caregiver's level of education, socio-economic level of the family, and caregiver's view about their role in children's development. These factors were considered important for inclusion within the current research.

The review has also shown that children's literacy experiences with caregivers have not been documented in Kenya. Thus, there was a need to investigate these experiences and factors influencing them to demonstrate the similarities and differences of Kenyan children's experiences in emergent reading with those in other countries.

It was noted that the reviewed studies had methodological limitations. They have assessed caregiver involvement using caregiver self-reports of caregiver-child

interactions. These may not provide an accurate evidence of the nature and extent of involvement. In addition they are not comprehensive measures as they have failed to focus on the varied types of caregivers that take care of young children.

#### 2.0 Introduction

This chapter reviews the current literature on literacy development and discusses the methodology of this study. Consequently, the current study was necessary to fill the gaps in our knowledge of children's early literacy experiences and to overcome the methodological weaknesses. In the next chapter the methodology of this study is presented.

#### 3.0 Research Design and Methodology

This research study was of an exploratory nature with respect to nature and methodology. The study was conducted in two phases. Phase One employed a multiple case research design while Phase Two employed a descriptive survey research design.

##### 3.1 Multiple Case Study Design

The study employed an in-depth multiple case study approach to explore and understand literacy based observations were made of home behaviors in the home by using the Theory of Symbolic Interaction Theory (Blumer, 1939) and the descriptive research was guided by grounded theory concepts and procedures outlined by Glaser (1978) which is known to have used the "typical case" approach. This characteristic of qualitative research (Merriam, 1998).

According to Glaser and Strauss (1967) the purpose of this research was exploring in general terms and to understand the nature of the data that emerged from the observations and to provide a conceptual framework for further observations.

## CHAPTER 3

### METHODOLOGY

#### 3.0 Introduction

This chapter presents the design, variables, instruments and data gathering procedures of this study.

#### 3.1 Research Design and Methodology

This research made use of triangulation with respect to design and methodology. The study was conducted in two phases: Phase One employed a multiple case research design while Phase Two employed a descriptive survey research design.

##### 3.1.1 Multiple Case Study Design

This study employed an in-depth multiple case study approach within naturalistic settings. Direct observations were made of human behaviour in everyday life. Drawing on symbolic interaction theory (Bloomer, 1969), naturalistic researchers believe that gaining knowledge from sources that have "intimate familiarity" (Lofland, 1976) with an issue is far better than the "objective" distancing approach that characterizes quantitative approaches (Haworth, 1984).

According to Malim and Birch (1997), a case study is useful for exploring in order to generate hypotheses that can then be tested. Hypotheses emerged from the observation and interpretation of human behaviour, leading to further observations

and the generation of new hypotheses for exploration in the second phase of study. Among the various types of descriptive research methods, multiple case studies are especially useful for studying the pertinent aspects of caregivers with children around print in the home environment.

Within the multiple case study research design, the study employed methodological triangulation. Research literature (Berg, 1989; Denzin, 1978; Le Compte, 1984; Mugenda & Mugenda, 1999) supports the use of methodological triangulation in research. According to Berg (1989) each method of research reveals slightly different facets of the same symbolic reality. A combination of methods leads to a combination of several lines of sights that gives researchers a better, more substantive picture of reality. Goetz and Le Compte (1984) describes the use of methodological triangulation as a means of refining, broadening, and strengthening conceptual linkages. Berg (1989) further argues that the use of multiple research strategies increases the depth of understanding that an investigation can yield. This study made use of direct observation technique and interview.

The multiple case study employed qualitative and quantitative methodology. This study aimed at investigating aspects of family practices, the caregivers' behaviours and strategies with their children around print and children's emergent reading behaviours. Family scholars extol the benefits of qualitative methodologies in

understanding of the dynamic processes, meanings, communication patterns, experiences and individual and family constructions of reality (Daly, 1992). According to Reid (1987), qualitative methodology may be the most appropriate research strategy in studies of social processes of complex human systems such as families, organizations and communities.

In addition, qualitative approaches also have the advantages of flexibility, in-depth analysis and the potential to observe a variety of aspects of a social situation (Babbie, 1986). This flexibility was necessary in this study because the researcher needed to gain an in-depth understanding of the caregivers' behaviours with children around print and the beliefs and attitudes about their role in children's emergent reading development.

### **3.1.1 Survey**

This was an explorative study that attempted to investigate the current status of caregiver practices with children around print, their perceptions about involvement in their children's emergent reading development, and factors influencing their practices. The study aimed at bringing into the limelight what is happening in this important area of children's emergent reading stimulation. This called for descriptive research design.

According to Gay (1981), descriptive research is a process of collecting data in order to test hypotheses or to answer questions concerning the current status of the subjects in the study. Descriptive survey research seeks to obtain information that describes existing phenomena. It attempts to collect data from members of a population in order to determine the current status of that population with respect to one or more variables (Mugenda & Mugenda, 1999). The purpose of the second phase of study was to test hypotheses generated in the multiple case studies with a larger sample. The survey obtained quantitative data that was used to test these hypotheses.

### 3.2 Variables

This study employed a systematic approach with three levels of variables: Contextual variables, process variables and dependent variables.

**Table 3.1 Study Variables**

Level of variables	Variable
<b>Contextual *</b>	Caregiver's years of schooling (CYS)
	Caregiver's role definition (CRD) <ul style="list-style-type: none"> <li>▪ Positive Role Definition</li> <li>▪ Negative Role Definition</li> </ul>
	Average Household income (AHI)
<b>Process</b>	Caregivers behaviours and strategies <ul style="list-style-type: none"> <li>▪ Direct Behaviours and Strategies</li> <li>▪ Indirect Behaviours and Strategies</li> <li>▪ Total Behaviours and Strategies</li> </ul>
<b>Dependent</b>	Children's Emergent Reading Behaviour <ul style="list-style-type: none"> <li>▪ Frequencies of Book-Handling Behaviours</li> <li>▪ Frequencies of Picture Reading Behaviours</li> <li>▪ Frequencies of Story and Book Comprehension Behaviours</li> <li>▪ Frequencies of Story Reading Behaviours</li> </ul>

\* These variables emerged as potentially significant in the multiple case studies and their significance in relation to the process variables was tested in the survey

### **3.2.1 Contextual Variables**

The Contextual variables included caregivers' years of schooling, caregivers' role definition and average household income.

### **3.2.2 Process Variables**

These consist of three categories of children's emergent reading behaviours

### **3.2.3 Dependent Variables**

The review of literature (see Section 2.2) suggested that the three process variables in this study influence children's emergent reading behaviours. This study tried to find out how the process variables influenced the dependent variable; the dependent variable was the children's emergent reading behaviours as defined below

## **3.3 Location of Study**

This study was conducted in Thika District in Central Kenya. As stated earlier there was need to conduct this research in an area that the researcher was linguistically and culturally accustomed to. The researcher comes from this district and was therefore linguistically and culturally familiar with the population. Having prior knowledge about the people being studied and familiarity with their routines and rituals facilitate entry as well as rapport once entry has been gained Berg (1989). This familiarity enabled the researcher to penetrate into the households,

interact with them and understand the interactions within the households and the complex processes within these interactions. This study was conducted in Ruiru and Mugutha locations in Ruiru Division in Thika District, Central Kenya. The area of study is semi-urban. The Kikuyu community predominantly occupies this area. There are a few people however from other ethnic and linguistic backgrounds who have migrated to this area in search for jobs. The area consists of people who differ in socio-economic status, profession and education level. A few of these people have permanent jobs working in Nairobi, Ruiru, and Thika towns and other surrounding areas. Majority of them are casual workers in factories and farms in and around Ruiru town. Others do other casual work in homes and any other place when they are lucky to get it.

### **3.4 Population**

The target population in this study was caregivers and their 30 to 42 months old children. 30 to 42 months old children were selected because most of them had not yet started formal reading instruction. They were, therefore, in the emergent reading stage of reading development, which was the focus of the study. There were potentially 423 such households in Ruiru Location and 308 in Mugutha Location.

All the children in the studied households did not go to school. They stayed at

home under the care of various kinds of caregivers including their mothers, hired ayahs, siblings and relatives. The caregiver who took care of the child for the larger proportion of time and who had been with the child for at least a month was studied. This was done to ensure that the caregiver and the child were familiar with each other so that the caregiver could be able to provide accurate information sought for in the study.

Some of the parents spent long hours at work and could not spend a lot of time with their children. Some of them left their children under the care of hired caregivers. Those parents who could not hire caregivers left their children under the care of younger siblings or relatives. A few children whose mothers did not work had their mothers as their main caregivers. Thus there were varied types of caregivers.

### **3.5 Sample and Sampling Procedures**

Central Kenya consists of geographical regions that differ to a certain extent in culture and significantly in the language dialects. The researcher was linguistically and culturally accustomed to two Districts (Kiambu and Thika districts). Multistage sampling procedures were used to select the sample. Thika district was randomly selected from two districts (Thika and Kiambu) that the researcher was culturally and linguistically accustomed to. Thika District consists of five divisions (Kakuzi, Gatanga, Gatundu, Kamwangi and Ruiru). Ruiru

division was randomly selected. It has two locations (Ruiru and Juja). Ruiru location was then randomly selected. It consists of four sub locations (Ruiru, Kiu, Mugutha and Theta). Two of these (Mugutha and Ruiru) were randomly selected. Households potentially having 30 to 42 months old children at the time of the study were identified with the help of the area chief and sub chief's office. Information about households was obtained from the results of the 1999 census statistics. There were potentially 417 such households in Ruiru Location and 283 in Mugutha Location (Total=700).

The sample for the study was calculated using Cochran's (1977) formula for continuous data. This formula was used because it takes care of the sampling error and the response and non-response bias when determining sample size.

$$N_1 = N_0 / (1 + N_0/P)$$

Where  $N_0$  = required return sample size according to Cochran's formula

$N_1$  = required return sample size and

$P$  = Population size

When the margin of error is 0.03 (the margin of error accepted in most educational research).

A correction was made to cater for non-response bias. To do this the researcher used over sampling. The return sample size for a population of 700 was 102. The response returns rate in the pilot study was 65%. It was anticipated that a response

rate of 65% would be achieved based on the pilot results. The Cochran's correction formula was used to calculate the final sample.

Where anticipated return rate=65%

$N_2$ =Sample size adjusted for response rate

Where minimum sample size=102

Therefore  $N_2 = 102 / .65 = 157$

157 households were randomly selected for the survey. Of the identified households, twenty were randomly selected as potential households for in-depth case studies. These households were interviewed for their willingness to participate in the in-depth multiple case studies. Eleven households expressed this willingness. Four of them were randomly selected for the multiple case studies. The remaining seven households were included in the second phase of study.

### **3.6 Research Instruments and Scoring**

This study made use of a variety of research instruments. In the first phase of study, the multiple case studies, the researcher used the following instruments (1) Observation Checklists, (2) field notes and (3) an interview Schedule and (4) a researcher developed emergent literacy behaviours assessment profile.

#### **3.6.1 Observation Checklists**

One of the major methodological limitations of previous caregiver involvement in emergent reading research as indicated in chapter one was lack of use of

observations. Observational research serves to collect objective information. According to Mugenda and Mugenda (1999) this information is objective because the researcher observes the behaviour rather than relying on a self-report as the basic source of data. In order to improve research in this area, the researcher conducted within the multiple case studies in-depth direct observations of caregivers' behaviours with print in the home environment before conducting the survey. These direct observations revealed details of caregiver involvement that may not have been revealed by caregivers' self reports.

The researcher used two observation checklists: a print materials checklist and a caregiver behaviours and strategies checklist. Both checklists were used at the same time. Event sampling was employed. The caregiver noted the print materials observed within the accessible home areas. It was not possible to tally the print materials as they were observed because the researcher could not easily count all of them. This was because of the limited access to all areas in the home. This would have required more access to the environment than was feasible in the research setting. The caregivers' behaviours and strategies checklist consisted of the possible caregiver behaviours and strategies with children around print materials. The researcher noted and recorded each behaviour or strategy every time it occurred in a tally column. Any relevant behaviour or strategy that occurred but was not in the checklist was also added and recorded

every time it occurred. This was done throughout the all the first and second series of visits.

### **3.6.2 Field Notes**

This study also made use of field notes. This was done in order to capture everything that went on during the observation. According to Berg (1989) Field notes represent an attempt to record everything about an observation period. The researcher carried index cards on which he took detailed narrative accounts of the physical setting, descriptions of the child's and caregiver's behaviours and strategies, the print materials, interactions between the child and the caregiver around these materials, and account of what he heard, saw experienced and thought/inferred in the course of each observation. This included verbatim quotes of some of the verbal interactions between the child and the caregiver around print materials and other verbal statements relating to these. These were done during the observations. Some times the researcher jotted down a key word or phrase that helped him to reproduce the conversation later. The researcher completed these records immediately after each observation. This involved translating the point form notes into complete field notes.

### **3.6.3 Interview Schedule**

An interview schedule was used to gather information from caregivers in the multiple case studies. The interview schedule was basically sets of open-ended

guiding questions on three specific aspects of caregiver information; (1) caregiver's level of education, (2) caregivers role definition and (3) barriers and constraints influencing caregivers behaviours and strategies around print with their children. An interview schedule was used primarily to gather comparable data across households. A focused interview approach was employed. This approach of interviewing is recommended for purposes of developing hypotheses (Kothari, 1985). This approach gives the interviewer freedom to decide the manner and sequence in which the questions will be asked and to explore reasons and motives. This enabled the interviewer to explore caregivers' perceptions about their role in children's emergent reading development.

#### **3.6.4 Children's Emergent Reading Development Profile**

A researcher developed Emergent Reading Assessment Profile (E. R. A. P.) was used to assess children's emergent reading behaviours. The researcher developed the E.R.A.P. by the incorporating emergent reading behaviours from literature sources (Morrow, 1995; Morrow, 1997; Schickedanz, 1986; Gold, 1999) and others noted during the observations of children. It is an outline of potential emergent reading skills and strategies that characterize children in the emergent reading stage of literacy development. The emergent reading assessment profile consists of skills and strategies in four areas: book handling behaviours, picture reading behaviours, story and book comprehension behaviours and story reading behaviours. The child's behaviour around print materials was observed. The

observer recorded each skill and strategy every time it was observed in the child. The frequencies of each skill and behaviour were calculated for each child. The total frequency of the skills and behaviours under each category of emergent reading behaviours was obtained by summing up the frequencies of behaviours in that category for each child. Thus each child had four sub-emergent reading scores namely; book handling score, picture reading score. Story and book comprehension score and story reading score. Each child's emergent reader score was obtained by summing the child's four sub-emergent reading scores.

### **3.6.5 Questionnaire**

A researcher-developed questionnaire was used to obtain information concerning the contextual and process variables. The questionnaire was used because it is a valid instrument for obtaining information that is not observable and is difficult to infer from observations (Berg, 1989). Questionnaires have several advantages. They require minimum expenses in terms of money (Scheaffer & Mendenhall, 1979). Questionnaires also allow the selection of a large and representative sample (Mugenda & Mugenda, 1999). One major disadvantage of the questionnaire is that members of low educated respondents tend not to answer or are unable to express their responses clearly due to poor reading and writing skills. To minimise this disadvantage, the researcher presented the questionnaire to such caregivers orally.

The questionnaire had two main parts: Parent or guardian's information (see Appendix D) and Caregiver's information (see Appendix E). The respondents of parents or guardian's questionnaire were the parents or guardians of 30 to 42 months old children. This part of the questionnaire sought information concerning the personal and demographic information of parents and the household income. It had two sections: (1) Personal and Demographic Information and (2) Household Income information. The respondents of the caregivers' information questionnaire were the caregivers of 30 to 42 months children. This part of the questionnaire had four sections:

- (a) Caregiver's level of education (See Appendix E.1): the caregiver was supposed to indicate his or her level of education by putting a tick against the relevant level.
- (b) Caregivers' behaviours checklist: This consisted of a list of expected caregiver behaviours and strategies. The caregiver was supposed to indicate how often he/she had performed each behaviour with the child. There were four possible frequency choices namely; consistently, moderately, rarely and never. Caregiver behaviours and strategies were scored according to whether they were appropriate or inappropriate. Appropriate behaviours are those that have a positive impact on children's emergent reading development. Inappropriate caregiver behaviours and strategies are those that have a negative impact on children's emergent reading development. Appropriate behaviours and strategies were given a score of three for

consistent, two for moderate, one for rarely and zero for never. Inappropriate behaviours and strategies were given a score of zero for never, "minus one" (-1) for rarely, "minus two" (-2) for moderately and minus three" (-3) for consistently. Three caregiver scores emerged for each caregiver: Caregiver direct Behaviour Score (CDBS), Caregiver Indirect Behaviour Score (CIBS), and Caregiver Total Behaviour score (CTBS). CDBS was obtained by adding the scores for all the direct behaviours and strategies. CIBS was obtained by adding all the scores for the indirect behaviours and strategies and the CTBS was obtained by adding the scores for all the behaviours and strategies for each caregiver.

(c) Caregiver's role definition: This consisted of structured items concerning caregivers' perceptions about their role in children's emergent reading development. These items consisted of a number of alternatives on a 5-point likert scale and the respondent was required to indicate one of the alternatives as his or her response. The respondent was supposed to indicate whether he or she strongly agreed, agreed, was not sure, disagreed or strongly disagreed. For positive statements strongly agreed was given a score of five, agreed was given a score of four, not sure was given a score of three, disagreed a score of two and strongly disagreed a score of one. For negative statements strongly agreed was given a score of one, agreed was given a score of two, not sure was given a score of three, disagreed a score of four and strongly disagreed a score of five.

(d) Barriers and Constraints: This consisted of a table with a list of potential barriers and constraints. The caregiver was supposed to indicate how often each of the problems and constraints influenced the way he or she behaved with the child around print materials. The caregiver was required to specify any other constraint and how often it influenced him or her. The proportions of caregivers who reported being influenced by each barrier or constraint were calculated according to how often each constraint influenced the caregivers for comparison.

### **3.7 Validity and Reliability**

Before these research instruments could be used, it was necessary to translate the items into Kikuyu and Kiswahili languages. To ensure validity of the instruments, this task involved collaboration by three developmental psychologists who were fluent in English and Kikuyu languages. First the questionnaire and interview schedules were translated into Kikuyu and then transcribed back to English as a check for consistency. The original and back translation versions were then compared to ensure accuracy of content. Finally idiomatic changes were made to ensure comprehension to Kikuyu readers.

Results of the survey pilot study were used to test the reliability of the questionnaire. This was tested using the coefficient alpha (Cronbach) model of internal consistency. This is a model of internal consistency based on the average

inter-item correlation. A reliability coefficient of 0.8985 was obtained. It was concluded that the survey instrument was significantly reliable.

### **3.8 Data Collection Procedures**

This study was conducted in two stages: the 'pilot study stage and the 'main study stage.

#### **3.8.1 Pilot Study**

Two pilot studies were carried out, one for each of the two phases of study.

##### **3.8.1.1 Multiple Case Pilot Study**

A pilot study of multiple case studies was conducted prior to the main study. This was a case study of one household. It was an in-depth case observation study of a caregiver and her 36 months old child. The purpose of the pilot study was to pre-test the research instruments and also to familiarize the researcher with the data collection procedures. This part of study enabled the caregiver to establish how to conduct observations in the main study phase. The researcher was able to establish what kind of environment and context the observations occurred.

One major observation was made in the pilot case study; the researcher noted that this particular household had very limited print materials. The limited print environment meant that it would not be possible to get a comprehensive picture of

children's emergent reading behaviours and caregivers behaviours with children around such materials in such a limited print environment. It would also not be possible to test children's emergent reading behaviours adequately using the natural home print materials.

The researcher therefore, realized the need to carry out two series of observations: one within the natural home print environment and another in a richer print environment. This led to an incorporation of a second series of observation in the main study. It was decided that during this second series of observations the researcher would bring along other print materials to enrich the home environment. Observations would be carried out in the context of the household print materials and the print materials brought along by the researcher.

The pilot case study was conducted in 13 days. After this initial pilot study, the researcher conducted the main multiple case study. From the findings of this study the researcher came up with themes from which research hypotheses and instruments for the second phase of study were developed.

### **3.8.2.1 Multiple Case Study Stage**

Multiple case studies were conducted with four households that had given consent to be so studied. The researcher started by visiting each household to remind the members about the intended study and to arrange appointment for the next visit.

She explained to the members of the household that she intended to visit and conduct a study of their child. This was done to create security and a relaxed atmosphere during the observations. The household members were not informed of the actual purpose of the study, as this was likely to influence their behaviours. They were told the details of the visit in relation to the number of intended visits and the expected lengths of each visit. The researcher also sought the required cooperation and arranged appointment days and times for the next visit.

After familiarizing herself with the household members, the researcher conducted the observations four series of visits in each household.

### **First Series Visits**

The first series of visits comprised of a total of five visits: Three morning visits of two hours each and two afternoon visits of one and a half hours each in each household. Thus each household was observed for a total of nine hours (six morning hours and three afternoon hours). Each time the researcher visited the home at the appointed day and time. At the end of each visit the researcher made an appointment for the next visit with the caregiver. During the first series of these visits, the researcher observed caregivers in the natural home environment paying special attention to the caregiver's behaviours with children around print. The first series of visits were spread over a period of 13 days. After completing the first series of visits in all the households, the researcher proceeded to the second series

of visits.

### **Second Series Visits**

The second series of visits comprised of a total of five visits per household: three morning visits of two hours each and two afternoon visits of one and a half hours each in each household. Each household was observed for a total of nine hours (six morning hours and three afternoon hours). Each time the researcher made an appointment with the caregiver about the next visit. One of the caregivers was unable to honour two appointments due to unavoidable circumstances. These visits were made up for later. The second series visits were spread over a period of 15 days.

The researcher brought to the home an assorted set of materials including cards, toys, blocks, tins, paper bags, pieces of cloth and papers that had print on them and another set of the same materials that had no print on them. The aim of bringing materials that had no print on them was to disguise the researcher's point of interest in the study. In addition to these materials, the researcher also took with her bus tickets, calendars and supermarket receipts. The purpose of taking these materials was to make sure those families that had limited or no print materials got some for observation purposes. Caregivers and children were observed around these and other print materials. As in the first series of visits, the researcher tallied the behaviours of caregivers around the print environment while taking field notes.

### **Third Series Visits**

During the third series of visits the researcher took along cards with pictures and print besides the pictures, pictures depicting sequenced events in a story, newspapers, a Bible, a calendar, bus tickets and selected children's books. There were three visits in each household. Each of the visits took one hour. The aim of these visits was to measure children's emergent reading behaviours. The researcher and the caregiver sat on a large mat with the child. The print materials were arranged at the centre of the mat in such a way that all of them had full view of the materials and of each other. The researcher observed and recorded a tally of the child's emergent reading behaviours as per the E.R.A.P. instrument (see Appendix B). This observation was conducted for a total of three hours. These comprised of three visits of one hour each. These visits were spread over a period of five days. On the last visit in each household the researcher made an appointment with the caregiver for the fourth series of visit. The caregiver suggested a day and time when she would be free to have a discussion talk to the researcher without many disruptions.

### **Fourth Series Visits**

During the last visit the researcher interviewed the caregiver about their behaviours with print, the factors that influenced these behaviours and their perceptions about their role in children's emerging reading related behaviours. These interviews were conducted in one visit per household. It took the researcher

between one hour and one and a half hours to complete the interview in each household. These interviews were completed in two days. These interviews were conducted during the last visit in order to make sure that any insights obtained from the interview would not influence the caregivers' behaviours with their children during observations.

**Table 3.2 Visit Series**

Visit Series	Purpose Of Visits	Number Of Visits	
		MORNING	AFTERNOON
First	Observation of caregivers' behaviours around the natural home literacy environment	3	2
Second	Observation of caregivers behaviours around the home and researcher provided print materials	3	2
Third	Measurement of children's emergent reading behaviours	3	
Fourth	Interview caregivers	1	
Total		14	

### 3.8.1.2 Survey Pilot Study

A pilot study for the survey was then conducted. The questionnaires were administered to a sample of 20 caregivers of 30 to 42 months old children. Two of the households could not be studied. One of them had relocated to an unknown location and other one had their child deceased a little while before the onset of the study. 12 of the other caregivers responded. Thus the response return rate was

65%. The response return rate was used to determine the actual sample size for the final survey.

Following the findings from this pilot the researcher revised the instruments to include relevant behaviours that were reported by the caregivers but which were not on the initial instrument. It was also found necessary to allow respondents freedom to add behaviours that were not on the researcher's caregiver behaviour and strategies instrument.

### **3.8.2 Main Survey Study Phase**

The researcher sought permission to conduct research from the Ministry of Education. She informed the area chief and sub-chief about her intentions to carry out research in their area. One of the research assistants was a final year postgraduate student at the university. She was identified because of her experience in research with families. The other two were clerks at the area District Officers office and were in charge of the two locations under study during the 1999 census exercise. They were made use of because of their extensive knowledge of the geographical area. They helped the researcher and other research assistant to locate the households identified for study. The researcher and the research assistant cum postgraduate student did the administration of the research while the other two mainly helped in the geography of the area.

Before the onset of the data collection the researcher had three meetings with the research assistants. During these meetings she trained the research assistants on their expected roles and duties in the research. She also sought their cooperation in order to ensure that the data collection process occurred efficiently. As a group they outlined the roles they would play in the data collection process. They role played the research situation to enhance consistency and enhanced inter-rata reliability of their distribution of the survey.

The researchers and research assistants went out in two groups. One group comprised of the researcher and one of the clerks and the other comprised of the postgraduate student and the other clerk. The researcher and postgraduate student research assistant were in charge of the actual data collection.

Each group of researchers started by visiting their respective first household. They introduced themselves and established rapport with the members of the household. They explained that they were researchers with the aim of studying certain family practices relating to children. They informed the parent(s) or guardian of the child that their household had been randomly identified for this study along with others in the area. They explained that this they required their cooperation in this matter. They further explained the kind of information they needed, assuring them that all the information would be treated confidential. The parent(s)/guardian were informed that some of the information sought in the research would be provided

by them and the other by the child's main caregiver. The researchers explained that this information was significant for purposes of understanding the experiences of the child before entry to preschool. The researcher/ research assistant requested for the parent(s) cooperation and permission while assuring them once again that information provided by each household would be treated with high level of confidence.

157 households had been selected for study. Two of these households were found to have relocated and could not therefore be located, one had the child deceased, and two others had caregivers who had been with the child for less than one month and did not therefore qualify for study. 152 households were available for study and all except two gave the researchers a go ahead for study. During the study, the researchers were able to administer questionnaires to the parent(s)/guardians in the 152 households. 123 sets of parent(s)/guardians and the caregivers responded to the questionnaires during the first visit as the researchers/ research assistants waited. 17 of the caregivers and 12 parents/ guardians requested to have the questionnaires orally administered by the researchers in charge. This was done and completed during the first visits. 29 households requested for between a day and one week to complete the questionnaires and gave the researchers appointments to pick them up later. Out of the 29, ten responded and returned the questionnaires later as agreed. 19 of the households did not return the questionnaires. 133 households therefore responded and returned the questionnaires. The researcher

and research assistants visited some of the households in the morning and others in the afternoon. The number of households visited each day depended on two factors: the distance between the homes and the flexibility of the relevant household members. The survey data collection took two months.

During the data collection period, the researcher and the research assistants met once a week to update the researcher on the research progress and to draw a schedule for the following week. During the week the researcher communicated with the other research group for updates and consultations on any potential issue requiring her attention any time as was found necessary. She also met with the research assistant in charge of the research on daily basis. All the questionnaires and research information from the other group was also handed in to her on daily basis.

### **3.9 Specific Hypotheses**

The following hypotheses guided the second phase of study. These null hypotheses were derived from the five research hypotheses that were in turn generated from the findings of the first phase of study.

H<sub>01</sub> There is no significant relationship between caregivers' direct behaviour scores and caregivers' indirect behaviour scores across households at .05 level of significance.

- H<sub>02</sub> There is no significant relationship between caregivers' years of schooling and caregivers' total behaviour scores at .05 level of significance.
- H<sub>03</sub> There is no significant relationship between caregivers' years of schooling and caregivers' direct behaviour scores at .05 level of significance.
- H<sub>04</sub> There is no significant relationship between caregivers' years of schooling and caregivers' indirect behaviour scores at .05 level of significance.
- H<sub>05</sub> There is no significant relationship between caregivers' role definition scores and caregivers' total behaviour scores at .05 level of significance.
- H<sub>06</sub> There is no significant relationship between caregivers' role definition scores and caregivers' direct behaviour scores at .05 level of significance.
- H<sub>07</sub> There is no significant relationship between caregivers' role definition and caregivers' indirect behaviour scores at .05 level of significance.
- H<sub>08</sub> There is no significant relationship between the average household income scores and caregivers' total behaviour scores at .05 level of significance.
- H<sub>09</sub> There is no significant relationship between the average household income scores and caregivers' direct behaviour scores at .05 level of significance.

- H<sub>0</sub>10 There is no significant relationship between the average household income and caregivers' indirect behaviour scores at .05 level of significance.
- H<sub>0</sub>11 The predictive values of CYS, CRD and AHI on caregivers' direct behaviour scores are not equal at .05 level of significance.
- H<sub>0</sub>12 The predictive values of CYS, CRD and AHI on caregivers' indirect behaviour scores are not equal at .05 level of significance.
- H<sub>0</sub>13 The predictive values of CYS, CRD and AHI on caregivers' total behaviour scores are not equal at .05 level of significance.

### **3.10 Data Analysis Procedures**

The type of data collected and the methods for analysing the data from the two phases are presented as follows:

#### **3.10.1 Phase 1: Multiple Case Studies**

In this phase qualitative data was obtained concerning each of the cases. This data included a description of the child's family background, the general physical home environment, the paper-print environment, the environmental print environment, caregivers' behaviours and strategies and reported potential constraints affecting caregivers' behaviours and strategies with children around print materials.

For analysis of this data, the researcher employed an approach similar to Kitwood's (cited in Koech, 1983) qualitative analysis techniques. This approach of

data analysis involves the application of eight methods of data analysis presented on Table 3.3.

**TABLE 3.3 KITWOOD'S QUALITATIVE TECHNIQUES FOR ANALYSIS**

**Method 1: The Total Pattern of Choice**

The frequency of choice of various items permits some surface generalisations about the participants, taken as a group. The most revealing analyses may be those of the least and most popular items.

**Method 2: Similarities and Differences**

Using the same technique as in method 1, it is possible to investigate similarities and differences within the total sample of accounts according to some characteristic(s) of the participants such as age, sex, level of educational attainment etc.

**Method 3: Grouping Items Together**

It may be convenient for some purposes to fuse together categories that cover similar subject matter. For example, items 1, 5 and 14 in Box 3.1 relates to conflict; items 4, 7 and 15, to personal growth and change.

**Method 5: Tracing a Theme**

This type of analysis transcends the rather artificial boundaries, which the items themselves imply. It aims to collect as much data as possible relevant to a particular topic regardless of where it occurs in the interview material. The method is exacting because it requires very detailed knowledge of content and may entail going through taped interviews several times. Data so collected may be further analysed along the lines suggested in method 4 above.

**Method 6: The Study of Omissions**

The researcher may well have expectations about the kind of issues likely to occur in the interviews. When some of these are absent, that fact may be highly significant. The absence of anticipated topic should be explored to discover the correct explanation of its omission.

**Box 3.1**

Below are listed 15 types of situations that most people have been in at some time. Try to think of something that happened in your life in the last year or so, or perhaps something that keeps on happening, which fits into each of the descriptions. Then choose the ten of them that deal with the things that seem to you to be most important, which cover your main interests and concerns, and the different parts of your life. When we meet we will talk together about the situations you have chosen. Try before hand to remember as clearly as you can what happened, what you and others did, and how you yourself felt and thought. Be as definite as you can. If you like, write a few notes to help you keep the situation in mind.

- When there was a misunderstanding between you and someone else (or several others)...
- When you got on really well with people...
- When you had to make an important decision...
- When you discovered something new about yourself...
- When you felt angry, annoyed or resentful...
- When you did what was expected of you...
- When your life changed direction in some way...
- When you felt you had done something well...
- When you were right on your own, with hardly anyone taking your side...
- When you got away with it, or were not found out...
- When you made a serious mistake...
- When you felt afterwards that you had done right..
- When you were disappointed with yourself...
- When you had a serious clash or disagreement with another person...
- When you began to take seriously something that had not mattered much to you before...

**Method 7: Reconstruction of a Social Life-World**

This method can be applied to the accounts of a number of people who have part of their lives in common, for example, a group of friends who go around together. The aim is to attempt some kind of reconstruction of the world, which the participants share in analysing the fragmentary material obtained in an interview. The researcher seeks to understand the dominant modes or orienting to reality, the conceptions of purpose and the limits to what is perceived.

**Method 8: Generating and Testing Hypotheses**

New hypotheses may occur to the researcher during analysis of the tape recordings. It is possible to do more than simply advance these as a result of tentative impressions; one can loosely apply the hypothetico-deductive method to the data. This involves putting the hypothesis forward as clearly as possible, working out what the verifiable inferences from it would logically be, and testing these against the account data. Where these data are too fragmentary, the researcher may then consider what kind of evidence and method of obtaining it would be necessary for a more thorough hypothesis testing. Subsequent sets of interviews forming part of the same piece of research might then be used to obtain relevant data (Cohen and Manion, 1980: 194-196).

Source: Adapted from Kitwood cited in Koech (1983)

The specific method used to analyse data according to the research objectives in this study are shown in Table 3.4.

**Table 3.4: Kitwood's Method of Data Analysis Used by Research Objectives**

Research Objective	Kitwood's Method of Data Analysis							
	The Total Pattern of Choice	Similarities/Differences	Grouping Items Together	Categorisation of Content	Tracing a Theme	The Study of Omissions	Reconstruction of a Social Life-World	Generating and Testing Hypotheses
Research objective 1	X	X		X		X	X	
Research objective 2	X	X	X	X	X	X	X	
Research objective 3	X	X	X	X	X		X	X
Research objective 4	X		X	X	X	X	X	X
Research objective 5	X	X	X	X	X	X	X	X
Research objective 6	X	X	X	X	X		X	X

As can be seen from the table each of Kitwood's first seven methods was used in varying degrees for each objective. To generate the hypotheses for Phase 2, Kitwood's eighth method was used. These hypotheses were generated from themes emerging from analysis of the data corresponding to each of the other objectives.

### 3.9.2 Analysis of Phase 2 Survey Data

Hypotheses were generated from the multiple case studies. Eleven of these

hypotheses concerned the relationships between independent variables and caregivers' behaviours and strategies with children around print. These hypotheses were tested using Spearman Rank Order Correlation Coefficient Test. This non-parametric test was used because the data did not meet the conditions necessary for use of a parametric test: (1) the sample was not normally distributed and (2) the data did not ensure homogeneity of variance.

The other three hypotheses were concerned with the relative extent of contribution of the three independent variables to the variability in the caregivers' behaviours and strategies.

These three hypotheses were tested using a Step-Wise Regression Analysis. All the hypotheses were tested at .05 level of significance.

Table 4.1. Household Characteristics

Characteristics	Yes	No	Total	Percentage
Gender	25	25	50	100%
Age	25	25	50	100%
Education	25	25	50	100%
Income	25	25	50	100%
Occupation	25	25	50	100%
Religion	25	25	50	100%
Marital Status	25	25	50	100%
Number of Children	25	25	50	100%
Number of Siblings	25	25	50	100%
Number of Siblings with Print	25	25	50	100%
Number of Siblings with Reading Skills	25	25	50	100%
Number of Siblings with Writing Skills	25	25	50	100%
Number of Siblings with Drawing Skills	25	25	50	100%
Number of Siblings with Counting Skills	25	25	50	100%
Number of Siblings with Problem Solving Skills	25	25	50	100%
Number of Siblings with Communication Skills	25	25	50	100%
Number of Siblings with Social Skills	25	25	50	100%
Number of Siblings with Emotional Skills	25	25	50	100%
Number of Siblings with Self-Management Skills	25	25	50	100%
Number of Siblings with Decision Making Skills	25	25	50	100%
Number of Siblings with Problem Solving Skills	25	25	50	100%
Number of Siblings with Communication Skills	25	25	50	100%
Number of Siblings with Social Skills	25	25	50	100%
Number of Siblings with Emotional Skills	25	25	50	100%
Number of Siblings with Self-Management Skills	25	25	50	100%
Number of Siblings with Decision Making Skills	25	25	50	100%

## DATA ANALYSIS, FINDINGS AND DISCUSSION

### 4.0 Introduction

This chapter presents the data analysis, findings and discussions of the study.

### 4.1 Phase 1 Data Analysis and Findings

The findings of this study are presented below by objectives.

#### 4.1.1 Research Objective 1: To Identify The Household Characteristics Including The Family Background, Physical Background, and Home Print Environment.

This information from the four cases was related to family background, physical home environment and the home print environment. Table 4.1 presents a summary of the household characteristics across households

**Table 4.1: Household Characteristics**

Characteristic	Alex	Jane	David	Mary
Child's Age	2 Yrs 7 months	3Yrs 4 Months	3yrs 1 Month	3yrs 2 Months
Gender	Boy	Girl	Boy	Girl
Child's birth position	First	Eighth	Third	Second
Number of siblings	None	Eight	Two	One
Does the child have a Father	No	Yes	Yes	Yes
Father's level of education	College	N/A	University	Sec. Form 4
Father's Occupation	Ministry Officer	N/A	Electrical Eng.	Casual worker
Does child have a Mother	Yes	Yes	Yes	Yes
Mother's Level of education	College	Primary Class 4	College	Sec. Form 2
Mother's Occupation	Veterinary Officer (Resigned)	Casual Worker	Businesswoman	Hawker
Nature of caregiver	Mother	Mother	Hired Caregiver	Mother
Caregiver's Level of Educ.	College	Primary class 4	Sec Form 2	Primary class 6
Average Household Income (KSH)	More than 100,000	1600-2400	60,000-70,000	7,000-8,000

As can be noted from the table, the following observations were made

- The size of the families in the study varied.
- The nature of caregivers in reference to their relationship with the child varied across the households.
- The nature of the primary caregiver appeared to be determined by availability of the mother and her current occupation.
- The levels of education across caregivers also varied.
- The average household income varied significantly across households.
- The reported household income appeared to be related to the parents' levels of education.
- The reported household income decreased with a decrease in the average parents' education.
- The parents' occupations varied across households. Fathers of the children in this study were on full time employment.
- Fathers did not appear to be involved as the child's main caregiver.

#### **4.1.1.2 Comparisons of Physical Environment Across Households**

The physical environment across households included the housing structure and ownership, the range and abundance of play materials in general and play-print materials. Emphasis was made on the play materials as they shed some light on the nature of the child's activities and involvement with print. In addition the home print environment was observed. A summary of the physical environments across households is presented in Table 4.2.

**Table 4.2: Physical Environment Across Households**

Characteristic	Alex	Jane	David	Mary
Housing structure	Permanent	Temporary	Permanent	Permanent
Size of house	Seven rooms	Single room	Five rooms	Three rooms
House ownership	Own	Rented	Rented	Own
Provision for study or reading room	None	None	Study room (Child not allowed in)	None

The following conclusions were made from the physical environment observed.

- The housing structure and size across households differed. This suggests that the amount of space available for children to explore and interact with caregivers differed across households.
- There was no provision of reading area for children in all households

#### **4.1.1.3 Detailed Comparisons of Home Print Environment across Households**

Home print environment in reference to the variety and range of paper-print and environmental print materials varied across households. The home print environment was described in terms of paper-print and environmental print.

##### **4.1.1.3.1 Paper-Print Environment**

Paper print materials available in the households are described in respect to the range and frequency of materials available, examples of these materials in each household, specific paper print materials for children and the availability of the

materials for the child to manipulate.

**Table 4.3 Paper-print Environment**

Characteristics	Alex	Jane	David	Mary
Extent of Paper Print materials	Rich	Poor	Rich	Moderate
Print materials observed during visits	13 wall photographs, photo album, five calendars, two wall cloth hangings, two wall posters, wedding invitation cards, birthday cards, piles of magazines and newspapers, two bibles, two hymn books, pile of other books	Sibling's books,, old newspaper piece	Bible, hymn book, 3 calendars, 8 wall photographs, photo album, 2 wall posters, bookshelf full of books, magazines in a rack	Three wall photographs, one calendar, wall hanging, one bible, one Bible study guide, books for sibling
Paper-print specifically meant for the child	Birthday cards (Access to these denied)	None	None	None
Freedom to explore paper print materials	Limited	Limited	Limited	Limited

The following conclusions were made from this data

- The paper-print environment varied across households.
- Children did not have paper print materials that were specifically meant for them
- Children in this study shared one thing in common; limited access to books and other paper-print materials that were available in their homes.

Table 4.4 Environmental Print

	Alex	Jane	David	Mary
Range of print materials	Wide	Very Limited	Wide	Moderate
Frequency of environmental print materials	High	Very low	High	Moderate
Examples of print materials observed	Printed doormat, toys with pictures, shoes, mobile phone with numbers, sweater with in-knitted "Good-boy" message, digital telephone head, glass shelf was full of medicine bottles, a radio and a television set with print, toy mobile phone handset,	plastic detergent container, cooking fat containers, printed "Unga" paper bags, a blue band tin, a tea packet and bread wrapping paper	Labelled thermos flasks, a digital telephone head, telephone directory, radio, television set, a calculator, a ruler, a toy mobile phone, audio cassettes, cassette cases, video cassettes, video cassette cases cooking fat containers, juice containers, a house door number, a shoe rack with printed stickers, digital wall clock, toy mobile phone.	Printed paper bags, wall clock, a television set, bicycle, toy mobile handset, fat containers
Access to print materials	Limited	Limited	Limited	Limited
Play-Print materials available	None	None	None	None

The following conclusions about the environmental print were made:

- The range and abundance of environmental print materials varied across households.
- The range and abundance of environmental print materials appeared to be related to the average household income.
- There were no specific play-print materials for children in this study.
- It appeared that children did not have opportunities to interact with print during play
- Caregivers did not appear to consider print as a necessary component of children's play.

**4.1.2: Research Objective 2: To Determine The Behaviours And Strategies Employed By Caregivers With 30 to 42 months Old Children Around Print**

Observations showed that caregivers interacted with children around print in various ways. The frequencies of 33 observed behaviours and strategies employed by caregivers and their frequencies are presented in the Table 4.5 on the next page.

**Table 4.5: Frequencies of Caregivers' Behaviours And Strategies Across Households**

Activity	Child's Name and Visit Series								Total
	Alex		Jane		David		Mary		
	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	
Silently read a Bible as the child watches (modelling)	3	0	0	0	2	6	1	2	14
Read stories to the child	0	0	0	0	0	0	0	0	0
Read other books to the child	0	0	0	0	1	7	0	0	8
Draw the child's attention to environmental print	0	5	0	5	0	4	0	0	14
Show the child pictures/photographs	2	3	1	3	0	7	1	2	19
Show the child how to hold a book	2	3	1	3	0	7	1	2	20
Show the child how to turn pages in a book	0	6	0	1	3	8	0	2	4
Draw the child's attention to books	0	3	0	0	0	1	0	0	18
Encourage the child to pretend to read books	1	4	0	3	2	4	0	4	7
Answer the child's questions about books	2	1	0	0	0	4	0	0	21
Answer child's questions about pictures	1	4	0	0	1	12	0	3	23
Answer child's questions about text	0	1	1	1	0	1	0	0	4
Ask Child questions about books	2	3	0	2	2	4	1	0	18
Silently read own books, newspapers, magazines or letters as the child is watching (modelling)	0	5	0	1	1	5	1	5	12
Browsing book together with the child	0	6	0	1	1	6	0	1	15
Appears to enjoy reading books to your child	0	0	0	0	0	0	0	0	0
Prevent child from touching, holding or reading a book	1	2	0	5	2	6	5	6	27
Ignore Child's questions about books	1	5	0	3	3	4	4	6	26
Silently read with enthusiasm (modelling)	0	1	0	0	0	1	0	0	2
Talk about books with the child	0	5	0	1	0	4	0	2	12
Talk about pictures with the child	1	5	0	0	1	1	0	0	8
Ask child questions about pictures	1	3	0	1	2	10	0	2	19
Talk about environmental print with the child	0	0	0	0	0	1	0	0	1
Look at photographs/pictures with the child	1	2	0	1	0	2	1	0	7
Beats/slaps or pinches a child for manipulating a book, or other print material	0	3	0	3	1	5	0	0	12
Read medicine bottles with the child	0	4	0	0	3	0	0	3	10
Praise or encourage child to touch books	0	4	0	0	0	0	0	0	4
Answer child's questions about environmental print	0	0	1	2	3	3	0	0	9
Encourage child to look at pictures	1	4	0	0	3	5	0	0	13
Answer child's questions about environmental print	0	0	0	0	1	2	0	0	3
Show child how to move from left to right across a page	0	0	0	0	0	0	0	1	1
Show child how to turn pages in a book	0	0	0	0	0	0	0	2	2
Ignores the child's questions about environmental print	0	0	2	4	0	0	0	0	6
Taking child to library	0	0	0	0	0	0	0	0	0
Setting a suitable area for reading	0	0	0	0	0	0	0	0	0
Total frequency	19	93	6	42	34	227	14	43	478

The following observations were made from information presented in this table.

- The frequencies of occurrence of specific behaviours and strategies varied from zero to 30. The most frequent caregiver behaviours were: Preventing child from touching, holding or reading a book (f=30), Ignoring the child's questions about books (f=26), answering the child's questions about pictures (f=23), answering the child's questions about books (f=21), showing the child how to hold a book (f=20), and asking the child questions about pictures (f=19).
- The availability of print materials appeared to influence the extent of caregiver responsiveness. All the four caregivers were less responsive during the first series of visits.
- It was noted that caregivers are likely to employ more behaviours and strategies with children involving print when their print environment is rich and when their attention is directed to this area.

#### **Appropriate and Inappropriate Behaviours and Strategies**

The frequencies of appropriate behaviours and strategies are presented in Table 4.6.

Table 4.6: Frequencies of Appropriate Behaviours and Strategies

Child's Name Visit Series	Alex		Jane		David		Mary		Total		
	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1st	2nd	Total
<b>Activity</b>											
Silently read a Bible as the child watches (modelling)	3	0	0	0	2	6	1	2	6	8	14
Read stories to the child	0	0	0	0	0	0	0	0	0	0	0
Read other books to the child	0	0	0	0	1	7	0	0	1	7	8
Draw the child's attention to environmental print	0	5	0	5	0	4	0	0	0	14	14
Show the child pictures/photographs	2	3	1	3	0	7	1	2	4	15	19
Show the child how to hold a book	2	3	1	3	0	7	1	2	4	16	20
Show the child how to turn pages in a book	0	6	0	1	3	8	0	2	3	1	4
Draw the child's attention to books	0	3	0	0	0	1	0	0	0	18	18
Encourage the child to pretend to read books	1	4	0	3	2	4	0	4	3	4	7
Answer the child's questions about books	2	1	0	0	0	4	0	0	2	19	21
Answer child's questions about pictures	1	4	0	0	1	12	0	3	2	21	23
Answer child's questions about text	0	1	1	1	0	1	0	0	1	3	4
Ask Child questions about books	2	3	0	2	2	4	1	0	5	13	18
Silently read own books, newspapers, magazines or letters as the child is watching (modelling)	0	5	0	1	1	5	1	5	2	10	12
Browsing book together with the child	0	6	0	1	1	6	0	1	1	14	15
Appears to enjoy reading books to your child	0	0	0	0	0	0	0	0	0	0	0
Silently read with enthusiasm (modelling)	0	1	0	0	0	1	0	0	0	2	2
Talk about books with the child	0	5	0	1	0	4	0	2	0	12	12
Talk about pictures with the child	1	5	0	0	1	1	0	0	2	6	8
Ask child questions about pictures	1	3	0	1	2	10	0	2	3	16	19
Talk about environmental print with the child	0	0	0	0	0	1	0	0	0	1	1
Look at photographs/pictures with the child	1	2	0	1	0	2	1	0	2	5	7
Read medicine bottles with the child	0	4	0	0	3	0	0	3	3	7	10
Praise or encourage child to touch books	0	4	0	0	0	0	0	0	0	4	4
Answer child's questions about environmental print	0	0	1	2	3	3	0	0	4	5	9
Encourage child to look at pictures	1	4	0	0	3	5	0	0	4	8	13
Answer child's questions about environmental print	0	0	0	0	1	2	0	0	1	2	3
Show child how to move from left to right across a page	0	0	0	0	0	0	0	1	0	1	1
Show child how to turn pages in a book	0	0	0	0	0	0	0	2	0	2	2
Taking child to library	0	0	0	0	0	0	0	0	0	0	0
Setting a suitable area for reading	0	0	0	0	0	0	0	0	0	0	0
<b>Total frequency</b>	17	83	4	27	28	218	5	31	54	35	407

Box 4.2 a description of observations made about caregivers and their use of appropriate behaviours and strategies around print with children.

### Box 4.2: Description of Caregivers and Their Use of Appropriate Behaviours and Strategies

The proportion of appropriate behaviours and strategies was 84% and that of inappropriate behaviours and strategies was 16%. Thus caregivers employed more appropriate behaviours and strategies than inappropriate behaviours and strategies. Among appropriate behaviours and strategies the most frequent behaviours included; answering children's questions about pictures ( $f=23$  or 5.7%), showing a child how to hold a book ( $f=20$  or 4.9%), showing a child a picture ( $f=19$  or 4.7%), asking children questions about pictures ( $f=19$  or 4.7%), drawing child's attention to books ( $f=18$  or 4.4%) and asking children questions about books ( $f=18$  or 4.4%). These behaviours and strategies are related to books or pictures. These behaviours and strategies are equivalent to 28.8% of the total appropriate behaviours and strategies.

David's caregiver reported having high interest in the child's activities and was observed as having a lot of interest in what the child did while Jane's caregiver reported having no interest in the child's activities. David and Jane's caregivers had the highest and the lowest behaviours and strategies respectively among the four caregivers in the multiple case studies.

Alex and Mary's caregivers<sup>7</sup> reported moderate and low interest in children's activities, respectively. These two caregivers were also moderate in their responsiveness and use of appropriate behaviours and strategies compared to the other two caregivers. Thus, the interest and behaviours appear to be related.

David and Jane's caregivers were the most and least educated caregivers, respectively. David's caregiver demonstrated the highest frequency of appropriate behaviours and strategies during the two series of observations. ( $f=28$  and  $f=212$  for the first and the second series of observations respectively). This is equivalent to 52% and 60% for the first and second series of observations respectively. David's caregiver was therefore the most responsive among the four caregivers. Jane's caregiver had the lowest frequency of appropriate behaviours and strategies ( $f=1$  or 0.2%) during the first series of observations while Mary's caregiver had the lowest frequency during the second series of observations. Overall, Jane's caregiver was the least responsive among the four caregivers.

There were two striking differences between David and Jane's caregivers. These were (1) The interest they demonstrated in the child's activities and (2) their levels of schooling. David's caregiver expressed and demonstrated a lot of interest in the child's activities. Jane's caregiver stated that she was not usually interested in the child's activities. This lack of interest was observed in practice. David's caregiver also had a higher level of educational attainment (Secondary Form 2) than Jane's caregiver (Primary Class 4).

The least frequent appropriate caregiver behaviours and strategies included: talking about environmental print ( $f=1$  or 0.24%), reading with enthusiasm ( $f=2$  or 0.49%), showing children how to move from left to right across print on page ( $f=2$  or 0.49%), answering children's questions about environmental print ( $f=3$  or 0.74%), answering children's questions about text ( $f=4$  or 0.98%), praising or encouraging a child to take a book ( $f=4$  or 0.98%) and showing a child how to turn pages in a book ( $f=4$  or 0.98%). All these behaviours are related to text and reading.

The following conclusions were made about caregivers' use of appropriate behaviours and strategies

- Caregivers varied considerably in the behaviours and strategies that they employed with children around print
- The most frequent caregivers' behaviours and strategies were related to pictures or books.
- Caregiver's behaviours and strategies around print materials with children appeared to be related to their interest in children's activities.
- Caregivers' level of education appeared to influence their behaviours and strategies around print materials with children.
- It appeared that caregivers rarely stimulated children's emergent reading behaviours that focused on text and reading.
- Some expected behaviours and strategies were not observed among the caregivers in this study. These include reading aloud, setting up a special place for reading, visiting a library with the child, making reading sessions with children fun and making reading sessions with children fun.

Box 4.3 discusses some of the inappropriate behaviours and strategies of the caregivers in their interactions with the children and print materials.

### Box 4.3: Inappropriate Behaviour And Strategies

Four specific inappropriate behaviours and strategies were observed. These included preventing a child from touching or reading a book ( $f=27$  or 37%), ignoring a child's questions about books ( $f=26$  or 36%), beating/slapping/pinching a child for touching or holding a book ( $f=12$  or 16%) and ignoring children's questions about environmental print ( $f=6$  or 8%).

A comparison of the first and the second series of observations showed that there was a higher frequency of inappropriate behaviours and strategies during the second series of observations ( $f=50$  or 68%) than there were during the first series of observations ( $f=18$  or 25%). All the inappropriate behaviours and strategies occurred more frequently when more print materials were available.

The most frequent inappropriate behaviour or strategy was preventing a child from touching, holding or reading a book ( $f=27$  or 37%). All the four caregivers demonstrated this behaviour in various frequencies. David's caregiver demonstrated this behaviour more frequently (30%) than the other caregivers. The second most frequent inappropriate behaviour was ignoring a child's questions about books ( $f=26$  or 36%). Jane's caregiver employed this behaviour most frequently ( $f=10$  or 38%). David's caregiver employed beating, slapping or pinching a child for manipulating books most frequently ( $f=6$  or 50%) demonstrated by. Jane's caregiver did not employ this behaviour in both series of observations.

Ignoring the child's questions about environmental print was the least frequent ( $f=6$  or 8%) inappropriate behaviour. Mary's caregiver was the only caregiver that employed this behaviour. The other three caregivers did not ignore children's questions about environmental print during the two series of observations.

Beating or pinching the child affected each of the three the children emotionally in almost all the instances that these children were beaten, pinched or slapped for manipulating books. Alex and Jane cried and for a moment withdrew from the caregiver and the books. Mary showed signs of fear towards touching books. She would look at her mother as she moved close to a book as if to read her signs before actually braving herself and touching one. The most frequently pinched (50%) child was David. He got these pinches during the second series of observations. David had a lot of enthusiasm about books. He made more attempts to manipulate books than any other child. His caregiver attempted to prevent David from manipulating the books that had been brought by the researcher. This was the most probable reason for pinching David. David appeared unhappy for a moment but did not cry after being pinched before returning to the books again.

The following conclusions were made concerning these inappropriate caregiver behaviours:

- The use of inappropriate behaviours and strategies appeared to increase with increased print materials.
- Some inappropriate behaviours and strategies occurred more frequently than others with specific caregivers.
- All the caregivers employed some inappropriate behaviours and strategies in various frequencies.
- Caregivers' practices in this study were not consistent. Caregivers who

employed appropriate behaviours and strategies also employed inappropriate behaviours and strategies.

- Children appeared emotionally affected after use of some of these behaviours.

#### **4.1.3: Research Objective 3: To determine the Direct and Indirect Caregivers' Behaviours and Strategies With Children Around Print Materials**

Caregiver behaviours and strategies were categorised into direct and indirect behaviours and strategies. Table 4.7 shows the frequencies of the direct and indirect behaviours and strategies in the first and second series of observations across the households.

**Table 4.7: Direct and indirect Caregiver Behaviours and Strategies with Children Around Print Materials**

Household		1 <sup>st</sup> Series		2 <sup>nd</sup> Series		Sub-total		Total
		Direct	Indirect	Direct	Indirect	Direct	Indirect	
Alex	Frequency	9	7	45	56	54	63	119
	Percent	56	44	45	55	45	55	100
Jane	Frequency	3	3	13	24	26	27	53
	Percent	50	50	35	65	49	51	100
David	Frequency	16	21	60	60	76	81	157
	Percent	43	57	50	50	48	52	100
Mary	Frequency	3	11	13	35	16	46	62
	Percent	21	79	27	73	26	74	100
Total	Frequency	31	42	131	175	162	217	379
	Percent	43	57	43	57	43	57	100

The following conclusions were made from the information on the table:

- Caregivers' use of direct and indirect behaviours and strategies around

print materials with children appeared to vary across households.

- Caregivers employed direct behaviours and strategies more frequently than indirect behaviours and strategies.
- The proportion of direct behaviours and strategies employed by caregivers with children around print materials appeared to correlate with the frequency of print materials in the household.
- Caregivers with higher level of educational attainment appeared to employ higher proportions of direct behaviours and strategies than caregivers with lower level of educational attainment.

#### **4.1.4: Research Objective 4: To Determine the Extent to Which Caregivers and Children Initiated Interactions Involving Print**

The caregiver-child interaction process around print materials was reciprocal. Caregivers' behaviours and strategies involving print materials were either spontaneous or initiated by the children. Caregiver behaviours and strategies were grouped into child-initiated and caregiver-initiated behaviours and strategies.

Table 4.8 shows the frequencies of caregiver and child initiated behaviours and strategies involving print materials.

**Table 4.8: Frequencies and Percentages of Caregiver-Initiated and Child-Initiated Behaviours and Strategies Around Print**

Household	Observation Series	Child-initiated Interactions	Caregiver-initiated interactions	Total
		Frequency (Percent)	Frequency	
Alex	1 <sup>st</sup> Series	8 (50.00)	8 (50.00)	16
	2 <sup>nd</sup> Series	40 (39.60)	61 (60.40)	101
	Total	48 (41.03)	69 (58.97)	117
Jane	1 <sup>st</sup> Series	2 (33.33)	4 (66.67)	6
	2 <sup>nd</sup> Series	13 (35.14)	24 (64.86)	37
	Total	15 (34.88)	28 (65.12)	43
David	1 <sup>st</sup> Series	16 (43.24)	21 (56.76)	37
	2 <sup>nd</sup> Series	41 (34.17)	79 (65.83)	120
	Total	57 (36.31)	100 (63.69)	157
Mary	1 <sup>st</sup> Series	24 (50.00)	24 (50.00)	48
	2 <sup>nd</sup> Series	27 (43.55)	35 (56.45)	62
	Total	51 (46.36)	59 (53.64)	110
Grand Total		147 (38.79)	232 (61.21)	379

A summary of the caregivers' direct and indirect behaviours and strategies initiated by the children and the caregivers are presented in Tables 4.9 to Table 4.12

**Table 4.9: Frequencies And Percentages Of Behaviours And Strategies In**

**Alex's Household**

Type of behaviours and strategies	1 <sup>st</sup> Series		2 <sup>nd</sup> Series		Total		Grand Total
	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	
Direct	5	4	16	29	21	33	54
Percent	31.25	25.00	15.84	28.71	17.95	28.21	46.15
Indirect	3	4	24	32	27	36	63
Percent	18.75	25.00	23.76	31.68	23.08	30.76	53.85
Total	8	8	40	61	48	69	117
Percent	50.00	50.00	39.60	60.40	41.03	58.97	
Grand Total	16		101		117		100.00
Percent	15.84		86.32		100.00		

**Table 4.10: Frequencies of Behaviours and Strategies in Jane's Household**

Type of behaviours and strategies	1 <sup>st</sup> Series		2 <sup>nd</sup> series		Total		Grand total
	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	
Direct	2	1	7	6	9	7	16
Percent	33.33	16.67	18.92	16.21	20.93	16.28	37.21
Indirect	0	3	6	18	6	21	27
Percent	0.00	50.00	16.21	48.62	13.95	48.83	62.79
Total	2	4	13	24	15	28	43
Percent	33.33	67.67	35.13	64.85	34.88	65.12	100.00
Grand Total	6				43		
Percent	(13.95%)				(86.05%)		100%

**Table 4.11: Frequencies of Behaviours and Strategies in David's Household**

Type of behaviours and strategies	1 <sup>st</sup> series		2 <sup>nd</sup> series		Total		Grand Total
	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	Caregiver initiated	Child Initiated	
Direct	7	9	23	37	30	46	76
Percent	18.92	24.32	19.17	30.83	19.11	29.30	48.41
Indirect	9	12	18	42	27	54	81
Percent	24.32	32.43	15.00	35.00	17.20	34.39	51.59
Total	16	21	41	79	57	100	157
Percent	43.24	56.76	34.17	65.83	36.31	63.69	
Grand Total	37		120		157		
Percent	23.57		76.43		100		

**Table 4.12: Frequencies Of Behaviours And Strategies In Mary's Household**

Type of behaviours And strategies	1 <sup>st</sup> series		2 <sup>nd</sup> series		Total		Grand Total
	Caregiver initiated	Child initiated	Caregiver initiated	Child initiated	Caregiver initiated	Child Initiated	
Direct	1	2	9	4	10	6	16
Percent	7.14	14.29	18.75	8.33	16.13	9.68	25.81
Indirect	2	9	15	20	17	29	46
Percent	14.29	64.29	31.25	41.67	27.42	46.77	74.19
Total	3	11	24	24	27	35	62
Percent	21.43	78.5	50.00	50.00	43.55	56.455	100
Grand Total	14		48		62		
Percent	22.59		77.41		100		

The following observations emerged following analysis of data with respect to the fourth objective:

- Children initiated more behaviours and strategies involving print than caregivers.
- Enriching the home print environment led to increased child-caregiver interactions involving print materials.
- Caregivers who had interest in children's activities were more likely to interact with children around print materials.
- Caregivers who were responsive to print materials stimulated their

#### **4.1.5: Research Objective 5: To Identify the 30 to 42 Months Year Old Emergent Reading Behaviours**

There were four categories of emergent reading behaviours. Tables 4.13 to Table 4.16 series show the frequencies of the various categories of specific emergent reading behaviours observed among the four children.

**Table 4.13: Book Handling Behaviours**

Book Handling Behaviour	Name of Child				
	Alex	Mary	David	Jane	Total
Grasps book with the hands and brings to the mouth to suck or chew	3	0	0	0	3
Shakes crumbles and waves book	0	2	0	1	3
Deliberately tears paper pages	0	1	0	2	3
Tears book accidentally due to difficult in handling	2	0	0	0	2
Rotates a book in an attempt to get a picture right-side up	1	1	4	1	7
Turns an inverted book right-side up	0	1	3	0	4
Moves from front to back when browsing in a book	0	0	1	0	1
Turns pages in a book awkwardly	4	0	0	3	7
Turns pages in a book from left to right	0	0	3	0	3
Gives book to an adult to read	0	0	5	0	5
Sits on the floor for extended periods to look at a picture in a book	3	1	6	0	10
Sits on an adult lap for extended periods of time to look at a book	0	0	3	0	3
<b>Total (Book Handling)</b>	<b>12</b>	<b>6</b>	<b>22</b>	<b>7</b>	<b>48</b>

The following appears from this table

- Frequencies of specific book handling behaviours vary across the children.  
Some children are more active with books than others
- The most frequent book handling behaviours are related to pictures
- Children have not learned to how to handle books. Their manipulative behaviours are awkward compared to those of adults.

**Table 4.14: Frequencies of Picture Reading Behaviours**

Picture Reading Behaviours	Name of the Child				
	Alex	Mary	David	Jane	Total
Intensely looks at pictures	5	1	4	2	12
Laughs or smiles at a familiar picture	4	2	3	1	10
Vocalises while pointing to a picture	1	0	5	0	6
Points correctly to a familiar object pictured when asked "where is..."	1	1	3	2	7
Names objects pictured	1	2	4	1	8
Makes animal or other sounds when the appropriate familiar pictures are seen e.g. "moo..." on seeing a picture of a cow or "boo..." on seeing a picture of a car	2	0	2	0	4
Points to pictures and asks "What's that or indicates in another way that a label is desired	1	1	3	0	5
Asks questions about a picture	2	0	4	0	6
Answers questions about pictures	0	1	4	0	5
Recognises pictures on signs and other places other than books	0	1	2	0	3
Labels objects in books	1	1	3	0	5
Comments on pictures in books	2	0	3	0	3
<b>Total Frequency of Picture Reading Behaviours</b>	<b>18</b>	<b>10</b>	<b>38</b>	<b>6</b>	<b>76</b>

The following conclusions can be made from this table:

- Frequencies of picture reading behaviours vary across children.
- The most frequent behaviours were looking intensely at a book and laughing or smiling at a familiar picture
- Picture reading behaviours mainly involved books

**Table 4.15: Frequencies of Story Reading Behaviours**

Story Reading Behaviour	Name of the Child				Total
	Alex	Mary	David	Jane	
Uses book babbles	1	0	2	0	3
Fills in the next word in the text before the adult reads it	0	0	0	0	0
Reads to dolls or	0	0	2	0	2
Indicates that text in books is noticed (e.g. points to labels under pictures as pictures are named)	0	0	0	0	0
Pretends to read a book to an adult	0	0	4	0	4
Moves finger or whole hand across a line of print and says something or babbles as if reading what is in print	1	0	2	0	3
Recalls and retells story in own words	0	0	1	1	2
Takes a song book and pretends to sing from it	0	2	1	0	3
<b>Total Frequency of Story Reading behaviours</b>	<b>2</b>	<b>2</b>	<b>12</b>	<b>1</b>	<b>17</b>

The following observations were made from this table:

- Majority of the story reading behaviours were observed in the same child
- Children did not focus on the text in a book

**Table 4.16: Frequencies of Story and Book Comprehension Behaviours**

Story and book Comprehension Behaviour	Name of the Child				
	Alex	Mary	David	Jane	Total
Pretends to read	2	0	4	0	6
Commands/requests to be read to	0	0	3	0	3
Performs an action a that is shown or mentioned in a book	0	0	0	0	0
Makes associations in across books e.g. retrieves a second book about animals or gets two books to show that they contain similar objects or events	0	0	2	0	2
Shows empathy for characters or situations depicted in books e.g. pretends to cry after seeing a child shown crying in a book or sad	0	0	0	0	0
Talks about the characters and events in story books in ways which suggest that what has been said or read has been understood	0	0	0	0	0
Relates events in books to own experiences	1	0	0	0	1
Relates an object or an action in a book to the real world e.g. to get a ball after seeing a picture of a ball in a book	2	0	1	0	3
Selects books on the basis of their contents thus demonstrating that understanding of what a book is about	0	0	3	0	3
Looks through illustrations in a book and makes reasonable guesses about what might happen in the story	0	0	0	0	0
Shows a favourite page of a book by searching for it or holding the book open at a certain page repeatedly, as if the part is particularly well understood or appreciated	4	2	3	0	9
Makes comments about illustrations / or story being read to	0	0	0	0	0
Pays attention to story	0	0	0	0	0
Talks about book: comments might include; opinions, reactions, ideas about books	2	0	3	1	6
Demonstrates understanding of book through drawing/scribbling	2	0	4	0	6
<b>Total Frequency of Story and Book Comprehension Behaviours</b>	<b>13</b>	<b>2</b>	<b>23</b>	<b>1</b>	<b>39</b>

The following observations were evident fro this table:

- Children's book and story comprehension behaviours were mainly demonstrated by two children
- The most frequent book and story comprehension behaviour was showing a favourite page of a book by searching for it or holding the book open at a certain page repeatedly, as if the part is particularly well understood or appreciated

- About half of the behaviours were not demonstrated by any of the children. These included: paying attention to story, making comments about illustrations / or story being read to, showing empathy for characters or situations depicted in books, performing an action that is shown or mentioned in a book, showing empathy for characters or situations depicted in books e.g. pretends to cry after seeing a child shown crying in a book or sad and talking about the characters and events in story books in ways which suggest that what has been said or read has been understood

By comparing the household characteristics and children's emergent reading behaviours the following observations emerged:

- Some emergent reading behaviours were more frequent than others
- The pattern of frequencies of children's behaviours was similar across different categories of emergent reading behaviours
- The frequencies of children's emergent reading behaviours was related to the caregivers' level of responsiveness to print
- Children appeared to have a lot of interest in pictures and to be fascinated by pictures of familiar objects
- The frequencies of book handling behaviours appeared to be related to the range and abundance of print materials in the household.

- Specific emergent reading behaviours displayed by children appeared to be related to the emphasis of caregivers' behaviours and strategies involving print materials.
- The frequencies of picture reading behaviours appeared also to correlate with the frequencies and range of print materials found in the households.
- The frequencies of children's picture reading behaviours appeared to be related to abundance and variety of print materials in the households.

#### **4.1.6: Research Objective 6: To Explore The Barriers And Constraints Influencing Caregivers' Behaviours With 30 to 42 months Old Children Around Print**

Various barriers and constraints appeared to influence caregivers' behaviours with children involving print materials. Caregivers reported several factors as barriers and constraints to the way they interacted with children around print materials. A summary of the barriers and constraints facing caregivers in the study are presented in the Table 4.17 according to how often they were reported to influence caregivers.

**Table 4.17: Frequencies Of Caregivers Facing Each Constraint And Frequency**

Constraint/Barrier	Never	Rarely	Sometimes	Frequently	Very Frequently	Percent Of Caregivers Frequently or Very Frequently Facing The Constraint
Lack of money	2			1	1	50%
Lack of time			2	1	1	50%
Lack of interest in child's activities	1	3				0%
Lack of knowledge of appropriate books for the child			1	1	2	75%
Not knowing how to get involved			1		3	75%
Thinking that the child is too young to benefit from experiences			1	1	2	75%
Belief that caregiver has no role to play in the child's reading related development				1	3	75%
Belief that the teacher should be the first person to help the child with reading related developments			1		3	75%
Not feeling competent to help the child in reading related developments			1	2	1	75%
Not knowing how to stimulate the child's reading related developments			1	2	1	75%
Not knowing how to read	3		1			0%
Failure to know importance of interacting with child around print			1	1	2	75%

Thus, in summary it can be seen from the table that various factors appeared to influence caregivers' involvement with children around print materials. These

factors appeared to influence different proportions of caregivers to various extents.

- Some personal factors influenced 75% of the caregivers frequently or very frequently. These include:
  - Lack of knowledge of appropriate books for the child
  - Lack of knowledge about how to get involved
  - Thinking that the child was too young to benefit from print experiences
  - The belief that the caregiver has no role to play in the child's reading related development
  - The belief that the teacher should be the first person to help the child with reading related developments
  - Feeling incompetent to help the child in reading related developments
  - Lack of knowledge about how to stimulate the child's reading related developments
  - not knowing that its important to stimulate the child's reading related developments.
- Time and money factors appeared to affect 50% of the caregivers frequently or very frequently.
- Financial constraints appeared to affect 50% of the caregivers

#### **4.1.7 Generating Hypotheses For Further Study**

Generalisations emerging pertaining to specific aspects of study were as follows.

#### **4.1.7.1 Range, Abundance And Access To Print Materials**

- Households appeared to vary with respect to the abundance and variety of print materials
- Children appeared to have limited access to paper print materials
- The abundance and variety of print materials appeared to be related to the average household income

#### **4.1.7.2 Caregivers' Behaviours And Strategies**

- Caregivers appeared to use both appropriate and inappropriate caregiver behaviours and strategies with children around print materials.
- Some expected useful caregiver behaviours and strategies were not observed.
- Caregivers' employed inconsistent practices with children around print materials
- Caregivers appeared to employ more indirect behaviours and strategies around print with children than direct behaviours and strategies
- The range and abundance of print materials appeared to influence the frequencies of caregivers' behaviours and strategies with children around print
- Use of direct behaviours and strategies appeared to be related with the abundance of print materials at home
- Caregivers' level of education seemed to influence caregivers' proportions

of direct behaviours and strategies with children around print materials.

- Children initiated more caregivers behaviours and strategies with children around print than caregivers

#### **4.1.7.3 Children's Emergent Reading Behaviours**

- Specific emergent reading behaviours displayed by children appeared to correlate with the pattern of caregivers' behaviours and strategies involving print materials
- The frequency and variety of print materials in the household appeared to influence children's development of book handling behaviours.
- Children appeared to have a lot of interest in pictures
- The abundance and variety of print materials in the households appeared to influence children's development of picture reading behaviours
- The focus of caregivers' behaviours and strategies appeared to influence the focus of children's emergent reading behaviours
- The contents of books appeared to influence children's interest

#### **4.1.7.4 Factors Influencing Caregivers' Behaviours With Children Around Print**

- Personal factors such as caregivers' perceptions about their role in children's emergent reading development, lack of knowledge about

children's emergent reading development, lack of knowledge how to stimulate children's emergent reading development, caregivers' level of education and self efficacy contribute to physical and social print environment.

- All the caregivers appeared to have a negative perception about their role in children's emergent reading development. This appeared to influence their interactions with children around print.
- Time constraints also appeared to influence stimulation of children's emergent reading development. Caregivers had multiple responsibilities which left them with little or no time for serious
- Financial constraints also appeared to influence the physical and social print environment

Although these generalisations were based on a small sample, they pointed to several variables that would lead to several research hypotheses that would require further study with a larger sample for more conclusive findings. However a study dealing with all the evolving variables would be too enormous for a single study. Three variables were, therefore, selected for the second phase of study.

All the caregivers appeared to have a negative role perception about their role in children's emergent reading development. It was found necessary to establish the following:

- (1) The role definition of caregivers and its impact on their behaviours and

- strategies with a larger sample;
- (2) The abundance and variety of print materials in the households appeared to be related to the frequencies and types of caregivers' behaviours and strategies with children around print materials. The abundance and variety of print materials available in the households appeared to be determined by the average household income. It therefore became necessary to study the relationship between average household income and caregivers behaviours and strategies with children around print materials; and
  - (3) Caregivers' level of education appeared to influence most of the personal factors that constrained caregivers' involvement with children around print materials. It was found necessary to establish the effect of the level of schooling on caregivers' years of schooling.

Thus, it was found necessary to study the relationships between caregivers' years of schooling, caregivers' role definition and the average household income on caregivers' behaviours and strategies with children around print materials in the second phase of study. This led to five research hypotheses from which 13 null hypotheses were developed.

#### **4.1.7 Generating Research Hypotheses**

Based on the generalizations made above the second phase of this study focused on testing the following research hypotheses:

- (1) Caregivers' direct and indirect behaviours in relation to print differ across households
- (2) Caregivers' direct and indirect behaviours in relation to print are related to their level of schooling
- (3) Caregivers' direct and indirect behaviours in relation to print are related to their role definition
- (4) Caregivers' direct and indirect behaviours in relation to print are related to the average household income
- (5) Caregivers' level of education, caregivers' role definition and the average household income equally predict caregiver's behaviours and strategies with children around print.

Thirteen null hypotheses were derived to test these research hypotheses. These were presented in Chapter 3, Section 3.9. They will be presented individually with their findings.

#### **4.2 Phase 2 Data Analysis, Findings and Discussion**

This section presents the data analysis, findings of the survey and discussion of the second phase of study. To simplify the presentation, these are presented according to the research objectives for that phase.

**4.2.1: Research Objective 1: To Describe The Subjects According To The Level of Education, Caregiver Role Definition And Average Household Income.**

Data Analysis included descriptive statistics; frequencies and percentages were used to describe data according to the various variables under study.

The proportions of caregivers by their level of education are presented in Table 4.18.

**Table 4.18: Categories of Caregivers by Level of Education**

Level of Education	Frequency	Percent	Valid Percent	Cumulative Percent
Unschoolled	7	5.3	5.3	5.3
Primary	39	29.3	29.3	34.6
Secondary	46	34.6	34.6	69.2
High School	5	3.8	3.8	73.0
College	25	18.8	18.7	91.7
University	11	8.3	8.3	100
Total	133	100	100	100

The largest category of caregivers had secondary education (34.6%). The rest followed in the order primary (29.3%) college (18.7%), university (8.3%) and the unschooled (5.3%). It is clear from these results that majority of the caregivers had secondary education. The least category of caregivers was the unschooled.

The frequencies and percentages of caregivers according to role definition are shown in Table 4.19.

**Table 4.19: Frequencies and Percentages of Caregivers By Role Definition**

<b>Role Definition</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Negative	98	73.7	73.7
Positive	35	26.3	100.0
Total	133	100	100

As the figures indicate about 74% of the 133 caregivers surveyed had a negative role definition score. Thus, majority of the caregivers in this study did not realize that they have a part to play in their children's reading related development. Most of them held this view because they do not realize that children's reading related experiences are important before the child goes to school.

Majority (74%) of those with a negative role definition stated that the teacher should be the first person to deal with the child around the reading related experiences. Consequently, those parents reported doing little or nothing to enhance their children's emergent reading.

Only 25.6 percent of the parents had a positive role definition. This group of parents would be expected to be involved in their children's emergent reading development. However, this was not always so. Two percent (2%) of them reported not doing anything by purpose to help their children's reading related development because they do not know what to do.

Table 4.20 shows the frequencies and percent values of the ranges of average household income.

**Table 4.20 Frequencies and Percent Values of the Ranges of the Average Household Income (AHI).**

Range of AHI (KSH)	Frequency	Percent
Less than 5,000	36	27.07
5,000 – 10,000	25	18.79
10,001 – 20,000	20	15.04
20,001 – 30,000	11	8.27
30,001 – 40,000	12	9.02
40,001 – 50,000	2	1.50
50,001 – 60,000	1	0.75
60,001 – 70,000	3	2.26
70,001 – 80,000	1	0.75
80,001 – 90,000	0	0.00
90,001 – 100,000	2	1.50
Undisclosed	15	11.28
Total	133	100.00

Out of 133 families under study, 15 (11.3%) did not disclose their income. They considered it confidential. As can be seen from the table, the average household income across households varied. The largest category of households had an average household income of less than KSH 5,000. About 45% of the households had an income of less than KSH 10,000 and below. Only 5% of the households had an income of KSH 50,000 and above. This suggests that majority of the households were of low income.

Caregivers' responses about their behaviours with children around print environment were coded to give three kinds of behaviour scores. Caregivers' direct behaviour scores and caregivers' total behaviour scores. Table 4.21 summarizes the caregivers' behaviour scores.

**Table 4.21: Caregiver Behaviour Scores**

Score	Mean	Standard Deviation	Coefficient of Variance
Caregiver Direct Behaviour Score	15.35	11.13	73.6
Caregiver Indirect Behaviour Score	3.31	3.06	92.4

The CDBS scores were higher than the CIBS. The coefficients of variance for CDBS and CIBS were 73.6 and 92.4 respectively. This showed that these scores were highly scattered. This suggested that the population was not homogeneous in reference to their use of direct and indirect behaviours and strategies. The CIBS were more widely scattered than the CDBS.

### **Discussion**

It is clear from these results that majority of the caregivers had secondary education and the minority were unschooled. The average household income reflects that the SES of the population of this study ranged from low to moderate with the majority being in the low SES. In reference to levels of education, the least category of caregivers was the unschooled. A study in Machakos district by

Gakuru and Koech (1995) depicted similarities with these findings. In this study, majority of the caregivers had at least secondary education and the smallest category was unschooled. However, unlike the current study the community in their study was mainly made up of rural population. Swadner, Kabiru and Njenga (2000) also reported similar patterns across several rural urban communities in Kenya. In addition findings by Ngugi (2006) found that most Kenyan parents in her rural urban population had secondary education. The socio-economic status in these two studies ranged from low to moderate with the highest and lowest being low SES and high SES respectively. Thus the SES again matches those obtained in the current study.

It was also determined that caregivers' role definitions were largely negative in that they did not perceive themselves as having a role to play in stimulating their children's emergent reading development. These findings are consistent with those Ngugi (2000) findings with a Kenyan rural urban population. Parents in this study had a common belief that they had no role to play in stimulating their children's olfactory perception.

These findings differ to findings by Swadner, et al (2000) who reported positive role definitions in children's education. However the reported role definition was in different forms of involvement. The similarity of findings by Ngugi (2000) and the current research reflects similarities among the rural urban populations in

Kenya. It suggests that the findings of the current study may be generalised to other rural urban populations in Kenya.

#### **4.2.2 Research Objective 2: To Determine the Relationship Between Caregivers' Direct Behaviours and Strategies and Caregivers' Indirect Behaviours and Strategies**

To determine the significance of the relationship between caregivers' direct behaviours and strategies scores and caregivers' indirect behaviours and strategies scores, one hypothesis was tested.

##### **H<sub>0</sub>1: There Is No Relationship Between Caregivers' Direct Behaviour Scores and Caregivers' Indirect Behaviour Scores Across Households at .05 Level of Significance**

The caregivers' direct behaviour scores and the caregivers' indirect behaviour scores were calculated for each household and the Spearman Rank Order Correlation Coefficients obtained are indicated in Table 4.22.

**Table 4.22: Spearman's Correlation Coefficients for Relationship Between Caregivers' Direct Behaviour Scores and Caregivers' Indirect Behaviour Scores**

Correlations			caregiver direct behavior score	caregiver indirect behavior score
Spearman's rho	caregiver direct behavior score	Correlation Coefficient	1.000	.770**
		Sig. (2-tailed)	.	.000
		N	23	23
	caregiver indirect behavior score	Correlation Coefficient	.770**	1.000
		Sig. (2-tailed)	.000	.
		N	23	23

\*\* . Correlation is significant at the .01 level (2-tailed).

The correlation coefficient of 0.770 showed a positive relationship between CDBS and CIBS that was significant at .01 level. The null hypothesis was rejected and the alternative hypothesis was accepted. It was concluded that there was a significant relationship between the frequencies of CDBS and the frequencies of CIBS across households.

## Discussion

It was interesting to note that caregivers who had higher frequencies of direct behaviours and strategies also had higher frequencies of indirect behaviours and strategies around print environment with their children. Thus caregivers who employed print-based behaviours and strategies also employed non print-based behaviours and strategies. This suggests that caregivers who stimulated children in one way also did so in the other way. These findings could not be compared with

others, as this was an explorative feature of study that other researchers did not appear to have investigated.

#### 4.2.3: Research Objective 3: To Determine The Relationship Between Caregivers' Level Of Education and Their Behaviours and Strategies With Children around Print.

To test the relationships between caregivers' level of education and caregivers' behaviours and strategies with print, three hypotheses ( $H_{02}$ ,  $H_{03}$  and  $H_{04}$ ) were formulated. The results obtained from testing these hypotheses are as follows:

#### $H_{02}$ : There Is No Significant Difference Between Years Of Schooling And Caregivers' Total Behaviour Scores.

Table 4.23 shows the correlation coefficients obtained from this test.

**Table 4.23: Spearman's Rank Order Correlation Coefficients for Caregivers' years of Schooling and Caregivers' Total Behaviour Scores**

			Correlations	
			YEAR_SC H	TOBESC
Spearman's rho	YEAR_SCH	Correlation Coefficient	1.000	.499*
		Sig. (2-tailed)	.	.015
		N	23	23
	TOBESC	Correlation Coefficient	.499*	1.000
		Sig. (2-tailed)	.015	.
		N	23	23

\*. Correlation is significant at the .05 level (2-tailed).

There was a significant correlation at .05 level. The null hypothesis was rejected and the alternative hypothesis was accepted. It was concluded that there was a significant relationship between CTBS and CYS. The null hypothesis was rejected and the alternative hypotheses adopted. Frequencies of caregivers' behaviours with print increased with increasing level of education.

**Ho3: There is No Relationship between Caregivers Years of Schooling and CDBS.**

The Spearman's Rank Order Correlation Coefficients obtained are indicated in Table 4.24.

**Table 4.24: Correlations of Caregivers' Years of Schooling and CDBS**

		Correlations	
		YEAR_SC H	caregiver direct behavior score
YEAR_SCH	Pearson Correlation	1.000	.466*
	Sig. (2-tailed)	.	.025
	N	23	23
caregiver direct behavior score	Pearson Correlation	.466*	1.000
	Sig. (2-tailed)	.025	.
	N	23	23

\*. Correlation is significant at the 0.05 level (2-tailed).

The correlation coefficient obtained for the comparison between CYS and CDBS was significant at .05 level. The null hypothesis was rejected and the alternative hypothesis accepted. There was a positive correlation between CYS and CDBS.

It was concluded that caregivers' use of direct behaviours and strategies increased with the level of education.

#### **H<sub>0</sub>4 There is No Significant Relationship between Caregivers' Years of Schooling and Caregivers' Indirect Behaviour Scores**

The Spearman's Rank Order Correlation Coefficient obtained the CIBS and CYS are shown in Table 4.25.

**Table4.25: Spearman's Correlation Coefficients for CIBS and CYS**  
Correlations

			YEAR_SC H	caregiver indirect behavior score
Spearman's rho	YEAR_SCH	Correlation Coefficient	1.000	.347
		Sig. (2-tailed)	.	.105
		N	23	23
	caregiver indirect behavior score	Correlation Coefficient	.347	1.000
		Sig. (2-tailed)	.105	.
		N	23	23

The Correlation Coefficient obtained was not significant at .05 level. There was no significant correlation between CYS and CIBS and at .05 level. The null hypothesis was therefore accepted. It was concluded that caregivers' use of indirect behaviours and strategies was not significantly related to their level of education.

## Discussion

Correlations between CYS and CTBS were significant at .05 level. It was concluded that caregivers' overall behaviours and strategies around print with children were related to their level of schooling. Thus, caregivers' level of education contributed to their overall involvement with children around print: caregivers' overall involvement with children around print increased with an increase in their years of schooling. Correlations between CYS and CDBS were also significant at .05 level. Thus, caregivers' level of education was related to caregivers' use of print-based behaviours and strategies. However, correlations between CYS and CIBS were not significant. Caregivers' use of indirect behaviours and strategies were, therefore, not significantly related with caregivers' level of schooling.

These findings are in agreement with findings by Crowe (1998) who found that more educated caregivers used different strategies to enhance their children's language development than those who were less educated. Crowe found that more educated caregivers actually used more effective strategies to stimulate their children's language development. Moreno and Lopez (1999) found that the less educated Latina mothers faced greater barriers in their involvement with children's education than the more educated mothers.

Use of print-based behaviours and strategies may require more experience with print. A caregiver with higher education has usually spent more time interacting with print than those with lower levels of schooling. As a result they may have developed a habit of interacting with print that makes it more likely for them to employ behaviours and strategies that are directly based on print. In addition, the findings of the present study can be attributed to the fact that caregivers with higher years of schooling have spent more time in reading than caregivers with few or no years of schooling. Consequently they have more experience with print and more knowledge and skills related to reading. They may be more informed about the reading process, how it works and how it can be facilitated. They may, therefore, be better placed to employ specific print-based behaviours and strategies around print with their children. On the other hand, caregivers with less years of schooling are less informed about the reading process and are likely, therefore, to be less knowledgeable on how to stimulate it.

In addition, caregivers with low level of education may be unaware that their young children benefit from experiences with print. Analysis of data from the multiple case study showed that caregivers did not realise that print is important for children before preschool. This belief was more prevalent among caregivers with low education. Such caregivers are likely to operate on this belief. The result is that they may not focus on print as they interact with children. Such caregivers require training on what to do with children around print. This is in line with

studies by Abrutyn-Leslye (1997) and Van-Wyk (1997) that showed that caregivers needed directions and advice on effective ways of helping children learn certain skills.

The importance of education level should not ignore as it also appears to impact other aspects caregivers' stimulation of their children's development. In a study conducted in Nairobi, Ngugi (2006) also found that parents' level of education influenced the extent to which they stimulated children's development. In this study, the more educated parents were more involved in stimulating their children's olfactory perception than the less educated parents. This in turn may have had a significant effect on the children's concept formation through olfactory perception. These studies support the current findings that education level is an important indicator of caregivers' ability to stimulate children's emergent reading development.

#### **4.2.4 Research Objective 4: Relationship Between Caregivers' Role Definition and Caregivers' Behaviour with Print.**

The next set of hypotheses (Ho5-Ho7) investigated the relationships between caregivers' role definition and their behaviours and strategies with print.

##### **H<sub>0</sub>5: There is No Significant Relationship between CTBS and CRD Scores**

The results of the hypotheses testing of the relationship between caregivers' total

behaviours scores and their role definition are presented in Table 4.26.

**Table 4.26 Spearman's Correlation Coefficients for CIBS and CYS**

			role defination	TOBESC
Spearman's rho	role defination	Correlation Coefficient	1.000	.756**
		Sig. (2-tailed)	.	.000
		N	23	23
	TOBESC	Correlation Coefficient	.756**	1.000
		Sig. (2-tailed)	.000	.
		N	23	23

\*\* . Correlation is significant at the .01 level (2-tailed).

A correlation coefficient of 0.756 was obtained. This was significant at 01 level. The null hypothesis was rejected and alternative hypothesis accepted. It was concluded that there was a significant positive relationship between Caregivers' Total Behaviour and Strategies Scores and Caregivers Role Definition Scores. As caregivers' role definition became positive, their frequencies of behaviours and strategies with print increased.

#### **H<sub>06</sub> There Is No Significant Relationship Between CDBS and CRD Scores**

Results of the hypothesis testing of the relationship between caregivers' role definition scores and their direct behaviours and strategies scores are presented in Table 4.27.

**Table 4.27: Correlation Coefficients For Caregivers' Role Definition And Caregivers Direct Behaviour Scores**

			Correlations	
			role defination	caregiver direct behavior score
Spearman's rho	role defination	Correlation Coefficient	1.000	.757**
		Sig. (2-tailed)	.	.000
		N	23	23
	caregiver direct behavior score	Correlation Coefficient	.757**	1.000
		Sig. (2-tailed)	.000	
		N	23	23

\*\* . Correlation is significant at the .01 level (2-tailed).

A correlation coefficient of 0.757 was obtained. This was significant at .01 level. The null hypothesis was rejected and the alternative hypothesis accepted. It was concluded that there was a significant positive relationship between caregivers' role definition and caregivers' direct behaviours with print. Caregivers direct behaviours and strategies scores increases as their role definition became positive.

#### **H<sub>07</sub>: There is No Significant Relationship between CIBS And CRDS**

Spearman's Correlation Coefficient Test was used to test this hypothesis. The correlation coefficients obtained in testing this hypothesis are shown in Table 4.28.

**Table 4.28. Relationship between Caregivers' Role Definition and Caregivers' Indirect Behaviour Scores**

**Correlations**

			role defination	caregiver indirect behavior score
Spearman's rho	role defination	Correlation Coefficient	1.000	.665**
		Sig. (2-tailed)	.	.001
		N	23	23
	caregiver indirect behavior score	Correlation Coefficient	.665**	1.000
		Sig. (2-tailed)	.001	.
		N	23	23

\*\* . Correlation is significant at the .01 level (2-tailed).

The correlation coefficient obtained (0.665) was significant at .01 level. The null hypothesis was therefore rejected and the alternative hypotheses accepted. It was concluded that there was a significant positive relationship between the Caregivers' Indirect Behaviour Scores and Caregivers' Role Definitions. As caregivers' role definition increased their indirect behaviours scores also increased.

## **Discussion**

The three hypotheses were significant at .01 level. Caregivers' role definition is a measure of their perception about their role in children's emergent reading development. Caregivers' overall involvement with children around print

materials increased as their role definition increased. The more the caregiver viewed himself or herself as having a role to play in the child's reading development, the more likely she was to be involved with the child around print materials. Caregivers' tendency to use print-based and non-print-based behaviours and strategies also increased with an increase in their role definition. The results obtained from the testing of Ho5, Ho6 and Ho7 suggest that there is a strong relationship between caregivers' role definition and their behaviours with children around print.

Caregivers' who believed that they had a role to play in their children's reading related development were more likely to stimulate this development than others. When a caregiver views himself or herself as having a part to play in the child's reading related development he or she is more likely to use direct as well as indirect behaviours and strategies to stimulate the child's reading related development. These findings indicate that the extent of caregiver interaction with children around print was higher for caregivers who viewed themselves as having a role to play in their children's reading related development than for those who didn't accept this view.

Studies by Edgerton (1985), Sigel (1985) and Meighan (1989) support these findings. In these studies parents who believed they had a role to play in their children's education were more actively involved in it than parents who did not accept this role definition. In the current study, majority (74%) of the caregivers

did not perceive themselves as having a role to play in their children's emergent reading development. According to Smith (1990), people act very frequently with their beliefs and feelings. If a person believes something is true, that belief affects his or her principles, which in turn affect his or her actions just as though it were actually true. A caregiver, therefore, who believes that he or she does not have a role to play in stimulating a child's reading related development is likely to act in that conviction. In contrast, caregivers who believe that they have role in children's emergent reading development could make deliberate efforts to stimulate them around print materials. Consequently they may intentionally and purposely get involved.

Caregivers' negative perception about their role in children's emergent reading development could be attributed to their lack of awareness about early reading-related developments. In study by Richard- Louis (1997) parent's lack of involvement in children's education was found to be partly due to lack of awareness of the importance of their involvement. Majority of the caregivers in the current study reported that the teacher should be the first person to be involved in the child's reading related developments. In addition they believed that children have nothing to do with reading before preschool. All the caregivers in the multiple case study confessed that they did not know for sure how and what to do with children around print materials. This suggests that caregivers lack awareness about emergent reading development. Interestingly, this lack is affecting the

educated as well as the uneducated. This implies that this knowledge is either lacking or is not adequately included in the current system of education.

#### 4.2.2.4 Research Objective 5: Relationship between Average Household Income and Caregivers' Behaviours and Strategies around print

Out of the 133 households, 15 did not report their household income, as they believed that their income is confidential. These households were therefore dropped when testing the next three hypotheses. Thus 118 households were used to test this relationship. Three hypotheses (H08, H09 and H010) were used to test this relationship.

#### H<sub>0</sub>8: There is No Significant Relationship between Average Household Income and Caregivers' Total Behaviour Scores.

The results of this hypothesis testing are presented in Table 4.29.

**Table 4.29 Spearman's Correlations For Relationship Of Average Household Income And Caregivers' Total Behaviour Scores**

Correlations			AHI	TOBESC
Spearman's rho	AHI	Correlation Coefficient	1.000	.536*
		Sig. (2-tailed)	.	.015
		N	20	20
	TOBESC	Correlation Coefficient	.536*	1.000
		Sig. (2-tailed)	.015	.
		N	20	23

\*. Correlation is significant at the .05 level (2-tailed).

A positive correlation coefficient of 0.536 was obtained. This was significant at .05 level. The null hypothesis was rejected and the alternative hypothesis accepted. It was concluded that there was a significant positive relationship between the Average Household Income and Caregivers' Total Behaviour Scores. As the average household income increased so did the frequencies of caregivers' behaviours with print.

#### H09: There is No Significant Relationship between AHIS and CDBS

Table 4.30 shows the correlation coefficient obtained for this hypothesis testing.

**Table 4.30. Spearman's Correlations For Relationship between AHI and CDBS**

		Correlations		
			AHI	caregiver direct behavior score
Spearman's rho	AHI	Correlation Coefficient	1.000	.541*
		Sig. (2-tailed)	.	.014
		N	20	20
	caregiver direct behavior score	Correlation Coefficient	.541*	1.000
		Sig. (2-tailed)	.014	.
		N	20	23

\*. Correlation is significant at the .05 level (2-tailed).

A positive correlation of 0.541 was obtained. This was significant at 0.05 Level. The null hypotheses were rejected and the alternative hypothesis accepted. It was concluded that there was a significant relationship between AHI and CDBS.

Caregivers' use of direct behaviours and strategies increased as the average household income increased.

**H<sub>0</sub>10: There is No Significant Relationship between Average Household Income and Caregiver Indirect Behaviour Scores**

The Correlation Coefficients obtained in testing this hypothesis are shown in Table 4.31.

**Table4.31: Spearman's Correlations For Relationship between AHI and CIBS**

			Correlations	
			AHI	caregiver indirect behavior score
Spearman's rho	AHI	Correlation Coefficient	1.000	.353
		Sig. (2-tailed)	.	.127
		N	20	20
	caregiver indirect behavior score	Correlation Coefficient	.353	1.000
		Sig. (2-tailed)	.127	.
		N	20	23

The correlation coefficient obtained (0.353) was not significant. The null hypothesis was accepted. It was concluded that there was no significant relationship between Average household income and caregivers' use of indirect behaviours and strategies with children around print materials.

## Discussion

Caregivers' overall behaviours and strategies were significantly related with the average household income. Average household income may influence the abundance and variety of print materials available in the household. This in turn may influence the caregiver-child interactions around print materials thus influencing their behaviours and strategies. That household income influences the behaviours and strategies employed by adults has been reflected in another in-depth study. Baker, Sonnenschein, Serpell, Fernandez-Fein and Scher (1994) analysed differences between literacy activities of low- and middle- income families. Low-income parents reported doing more reading practice with their kindergarten age children than middle-income parents. The middle-income parents reported significantly more play with print than low-income parents.

Correlation coefficient for relationship between caregivers' indirect behaviour scores and average household income was significant at .05 level. It was concluded that there was a significant relationship between the average household income and caregivers' direct behaviour scores. Caregivers in households that had higher average household income had higher frequencies of print-based behaviours. This could be attributed to higher print materials in such households. Households with higher average household are more likely to buy print materials and environmental print compared to households with low average household income. From the multiple case studies the range and abundance of print materials

across households appeared to be related to average household income. In one instance the researcher found one household that had practically almost no print materials. In this household the only paper-print material found in the only room the family was living in was a cramped piece of newspaper which had tied a piece of bar soap purchased from the nearby kiosk. Printed containers were also relatively few. The family rarely purchased foodstuffs and other materials in their original containers. The mother explained to the researcher that materials in such containers were in quantities that they could hardly afford to purchase. Consequently, the family purchased goods in fraction quantities wrapped in clear plain polythene papers.

A study by Scott and Wilkinson (1985) is in agreement with these findings. In this study, more books and magazines, and educational literacy materials were identified in the homes of higher income families. Also, research reported by Anderson et al (1985) identified more books, magazines and educational literacy materials in the homes of higher income families. In addition, Purcel-Gates (1994) reported a low level of print use in low-income homes. Brooks-Gunn, Klebalor and Liaw (1995) also reported that low-income parents provided home environments that were less stimulating than those provided by the more economically advantaged parents as indicated by the presence of fewer books and toys. Print-based behaviours and strategies do appear to therefore be related to the amount of print materials available in the home and household income. When the

print environment is low, behaviours and strategies that are directly based on print would also be expected to be low. It was concluded that the average household income might influence the CDBS indirectly by shaping the availability of print materials in the household. These in turn influence the frequencies of print-based behaviours and strategies employed by caregivers.

Correlation coefficient for relationship between the AHIS and the CIBS was not significant at .05 level. This suggests that caregivers' use of indirect behaviours and strategies was not related to the average household income. These findings are not in agreement with those of various studies (Fitzgerald, Spiegel & Cunningham; 1991 and Baker et al; 1994) conducted in the western countries. In these studies higher income parents were reported to employ indirect behaviours such as modelling book and magazine reading in addition to taking their children to libraries more frequently than low-income parents. The lack of agreement between the findings of the current study and these studies may be attributed to the differences in the cultural orientations. Reading books and magazines is not a common feature among caregivers in the current study and perhaps among many families in Kenya, particularly in the rural areas. In addition, taking young children to libraries is not common in Kenya. Libraries in Kenya cater for the needs of adults and school age children. Thus, the 30 to 42 months old children are unlikely to be taken to libraries.

**4.2.2.6: Research Objective 6: To Determine The Relative Contributions Of Caregivers' Level Of Education, Caregivers' Role Definition And Average Household Income To Caregivers' Behaviours And Strategies With Children Around Print.**

These findings of the present study suggested that the three independent variables: Average Household Income, Caregivers' Years of Schooling and Caregivers' Role Definition had a significant influence on the behaviours and strategies employed by caregivers around print materials with their children. To predict the variability of the caregivers' behaviours with children around print materials based on its covariance with the AHI, CYS and CRD, a step-wise regression analysis was conducted. This analysis was conducted separately for each of the following dependent variables: CDBS, CIBS and CTBS. The results obtained were as follows.

**Ho11: CYS, CRD And AHI Contribute Equally To Caregivers' Direct Behaviour Scores**

**Table 4.32: Regression Coefficients for CDBS**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	11.110	2.333		4.762	.000
	CRD	.693	.093	.552	7.433	.000
	AHI	.108	.047	.173	2.309	.023
	CYS	.432	.200	.160	2.157	.033

Dependent Variable: Caregiver Direct Behaviour Score

The CRD, AHI and CYS were significant in predicting the direct behaviour scores (CDBS). The Beta values for the independent contributions of CRD, AHI and CYS were 0.552, 0.173 and 0.060, respectively. The three independent variables had a significant effect on the caregiver direct behaviour scores. CRD explained 55.2%, AHI explained 17.3% and CYS 6% of the CDBS. The three variables explained about 78% of the variability. CRD had a greater effect on the CDBS than the AHI, which in turn had a greater effect than the CYS. CRD explained 55.2%, AHI explained 17.3% and CYS 6% of the variability CDBS. Caregivers' perceptions about their role in children's emergent reading development had a greater effect on the frequencies of print-based behaviours than the average household income, which in turn had a greater effect than the caregivers' level of education. The three variables explained about 78% of this variability. 22% of this variability is not explained. This suggests that there are other variables other than those that were studied that contribute to caregivers' use of direct behaviours and strategies with children around print.

#### **Ho12: CYS, CRD and AHI Contribute Equally To Caregivers' Indirect Behaviour Scores**

The following table shows the regression analysis coefficients for CIBS

**Table 4.33:Regression Coefficients for CIBS**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.001	.868		3.456	.001
	CRD	.228	.035	.555	6.575	.000
	AHI	2.110E-02	.017	.103	1.208	.230
	CYS	7.265E-02	.075	.082	.974	.332

Dependent Variable: Caregiver Indirect Behaviour Score

The three independent variables had a significant effect on the CIBS. The beta values for the independent contributions of CRD, AHI and CYS to CIBS were 0.555, 0.103 and 0.082, respectively. Thus the order of their effects was CRD, AHI and CYS. The CRD was the most important predictor of CIBS. CRD explained 55.5%, AHI 10.3% and CYS 8.2% of the variability in CIBS. Caregivers' perceptions about their role in children's emergent reading development had a greater effect on the frequencies of non-print-based behaviours and strategies than the average household income, which in turn had a greater effect than the caregivers' level of education. These three variables explained 74% of this variability. 26% of this variability is not explained by the variables under study. This suggests that there are other variables in addition to the three that were studied that contribute to caregivers' use of non-print-based behaviours.

**Ho13: CYS, CRD and AHI Contribute Equally to Caregivers' Total Behaviour Scores**

Table 4.34 shows the regression coefficients for CTBS

**Table 4.34: Regression Coefficients for CTBS**

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	14.111	2.781		5.073	.000
	CRD	.921	.111	.589	8.287	.000
	AHI	.129	.056	.166	2.314	.022
	CYS	.505	.239	.150	2.113	.037

Dependent Variable: Caregiver Total Behaviour Score

All the independent variables had a significant effect on CTBS. The order of their effect was CRD ( $\beta=0.589$ ), AHI ( $\beta=0.166$ ) and CYS ( $\beta=0.150$ ). Thus, the most important predictor of CTBS was CRD. Caregivers' perceptions about their role in children's emergent reading development had a greater effect on the frequencies of the total behaviours and strategies than the average household income, which in turn had a greater effect than the caregivers' level of education. These three variables explained about 90% of this variability. 10% of this variability is not explained by the variables under study. This suggests that there are other variables in addition to the three that were studied that contribute to the full range of behaviours and strategies that caregivers use with children around print materials.

## **Discussion**

Once again, caregivers' perceptions about their role in stimulating children's reading related development is a more important factor than the average household income, which in turn is a more important factor than caregivers' years of schooling. It was therefore concluded that the CRD explained the highest variability in the three dependent variables. Thus the caregivers' perception about involvement in children's emergent reading development was the most important predictor of the behaviours and strategies that caregivers employed around print with their children.

These findings suggest that caregivers irrespective of the average household income and their level of schooling may not stimulate children's emergent reading development if they do not accept that they have a role to play in this development. Thus, caregivers with a rich print environment and high level of schooling may fail to stimulate these developments unless they consider themselves to have a role in it. This points out the importance of making caregivers aware about this role and its importance in children's reading related development. According to Smith (1990), people act very frequently with their beliefs and feelings. In the current study majority of the caregivers reported that the teacher should be the first person to be involved in children's reading related development. It appears then, that these caregivers leave this important task to the teacher. This reflects the importance of caregivers' conviction about what they do

with children.

This study shows that caregiver's role definition is an important determinant of caregiver's behaviour with children around print. The caregivers' understanding of their role in the child's reading related development is very crucial in their family involvement practices. Awareness is really the first step towards provision of such stimulation. Any attempts towards increasing caregiver involvement in stimulating children's emergent reading development should start by convincing them that their involvement is significant.

Average household income was the second most important predictor of caregivers' behaviours and strategies with children around print. Average household income determined the range and abundance of print materials available in the households, which in turn influenced the extent of caregiver involvement. This suggests that once caregivers are persuaded to accept their role in children's emergent reading development, the next thing they need is provision of print materials. Educated caregivers who have a positive role perception may not stimulate children unless there are print materials in the households.

## CHAPTER 5

### SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents a summary of the findings, implications of the findings of this study. These findings and implications are very important. They have, therefore, been translated into specific practical suggestions for supporting children's early reaching development. These suggestions are presented as recommendations for various groups of people who have a role to play in children's emergent reading development.

#### 5.1 Summary of the Findings

##### 5.1.1 Determinants of Caregiver's Behaviours and Strategies With Children Around Print

Caregiver's behaviours and strategies with children around print materials were significantly related to the three process variables: Caregivers' Role Definition, Caregivers' Years of Schooling and Average Household Income. Specifically, Caregivers' overall behaviours and strategies with children around print were significantly related to Caregivers' Role Definition, Caregivers' Years of Schooling and Average Household Income. The frequencies of print-based behaviours and strategies were significantly related to Caregivers' Role Definition

Caregivers' Years of Schooling and Average Household Income. In addition frequencies of non-print-based behaviours and strategies were significantly related to Caregivers' Role Definition. However non-print behaviours and strategies were not significantly related to Caregivers' Years of Schooling and Average Household Income.

The most important predictor of caregivers' behaviours and strategies with children around print materials was CRD. CYS was the least important predictor of caregiver's behaviours and strategies with children around print materials. It was concluded that the first most important thing in equipping caregivers to stimulate children's emergent reading development is to convince them about their role in this development.

From the multiple case studies other findings emerged that also need to be highlighted. These are identified below.

### **5.1.2 The Physical Literacy Environment**

Paper and print environment varied considerably across the households. Some of the households had extremely poor print environments while others had moderate to rich print environments. Caregivers across all households deliberately made efforts to limit children's access to books and other paper-print materials. They consistently kept books away from children's reach in order to protect them from

getting damaged. Thus across all the observed households children had limited access to paper print materials. From the case study, it was noted that the extent of children's emergent reading stimulation appeared to be related to the abundance and variety of print materials accessible to the child. In addition children did not own books and majority of the households did not have a special place for reading with the child. Play print materials lacked across all households.

### 5.1.3 The Social Literacy Environment

The social environment was not always friendly for children's exploration with print materials and caregiver-child interactions around these materials. Caregivers who employed appropriate behaviours and strategies also employed inappropriate behaviours and strategies with children around print materials. This suggested that they did not have confidence in the child's ability to handle books and were not aware of what they were supposed to guide them to do. In addition, some of the inappropriate behaviours employed by caregivers caused pain and frustration to the children. This impacted negatively on the emotional climate and consequently children did not at such moments have a secure emotional base for exploration with print. This could have long-term consequences on children's interest in reading.

#### **5.1.4 Relationship between Caregivers' Behaviours and Strategies and Children's Emergent Reading Behaviours.**

Children initiated more caregiver-child interactions around print materials than caregivers did. Thus, children played a role in influencing caregivers' responsiveness to print. Caregivers who were more responsive to print appeared to have more print responsive children. The focus of caregivers' behaviours and strategies appeared to be related to the focus of children's emergent reading behaviours.

#### **5.1.5 Barriers and Constraints to Caregiver Involvement with Children**

Various personal factors appeared to influence caregiver's behaviours and strategies with children around print materials. Caregivers reported personal factors including wrong perception about their role in children's emergent reading development, lack of knowledge about children's emergent reading development, lack of knowledge about how to stimulate children's emergent reading development, lack of self-efficacy and time constraints as the main factors influencing their involvement with children around print materials. The majority of the caregiver's did not know that 30 - 42 months olds have anything to do with reading. They believed that books and print are for school going children. Consequently, they believed that the teacher is the only person who has a significant role to play in children's reading development. The caregivers lacked confidence in their ability to help children around print.

In addition, caregiver's reported time constraints as a major barrier to their involvement with children around print materials. Majority of the caregivers had multiple responsibilities in addition to taking care of the child. They had little or no time available to interact with children around print materials. In addition to the caregiver-reported constraints, analysis of data from the multiple case studies revealed that the abundance and variety of print materials available in the households may be influencing caregivers' behaviours and strategies with children around print materials or at least signalling to them some importance of this area in children's development.

#### **5.1.6 Caregivers' Perceptions About Their Role In Children's Emergent Reading Development**

Majority of caregivers had a negative caregiver role definition score. These caregivers did not view themselves as having a role to play in their children's emergent reading development. Lack of correct perceptions about caregivers' role in children's emergent reading development appeared to be due to lack of knowledge about children's development and their needs for this development.

### **5.2 Implications Of The Findings**

- (1) Caregivers' perception about their role in children's emergent reading development was the most important predictor of caregiver's behaviours and strategies around print with children. This implies that caregivers with high

level of schooling and in high-income household families whose environment is print rich may not stimulate children's emergent reading development unless they perceive themselves as having a role to play in children's emergent reading development. This implies that the first point towards improving the extent of children's emergent reading stimulation is getting caregivers to understand and accept their role in it.

- (2) Caregivers are not supporting children's emergent reading development. They are largely unaware about this important role. There is need to help caregivers to redefine their role in their children's emergent reading development. There is need to develop policies that support caregiver involvement in children's emergent reading development. These policies should clearly outline the role of caregivers in infant and toddler children's emergent reading development.
- (3) Caregivers largely lack knowledge about children's emergent reading development and children's needs in this development. Consequently they are not aware of their role in this development and they do not have the capacity to stimulate children's reading development. Infants and toddlers are taken care of by caregivers with little or no knowledge at all about children's development and the needs of these developments. Children, therefore, are not receiving quality stimulation. This implies that these children may join pre-school without a strong literacy foundation. Consequently, those in charge of pre-schools need to prepare to address and

compensate for this shortcoming so that children's literacy development is not negatively impacted further.

- (4) There is an existing fundamental gap in our education system that needs to be addressed. Knowledge about emergent reading is lacking. It is important that a curriculum be developed for potential caregivers in schools and colleges to equip them in advance so that they can effectively stimulate children at the apt time. This would ensure that a large proportion of prospective caregivers are knowledgeable and capable of stimulating their children when they get them.
- (5) Literacy is not strongly incorporated into children's daily experiences at home. Caregivers need to include in their interactions with children activities relating to print and print materials. This concern cannot be addressed until the negative role definitions and underlying lack of knowledge of caregivers is dealt with through the third channel and other parent education programmes.
- (6) Caregivers do not know how to stimulate their children's emergent reading development. They need directions and guidance on what to do around print materials with children. A special user-friendly informal curriculum for stimulating under fours should be developed and availed to parents and other caregivers.
- (7) Caregivers who are responsive to print materials are likely to have children who are more responsive to print and who develop emergent reading faster

than children with less print responsive caregivers. Such children may become more successful readers in later years. On the other hand, children that receive little or no stimulation may be joining preschool disadvantaged compared others. This implies that children may be joining school without a strong background foundation for reading development. Consequently, they may become less successful in later reading development. Preschool heads and their teachers need to develop basis for assessing children's emergent reading progress.

- (8) Children from high average household income families appeared to receive more emergent reading stimulation. They had more print materials than those from low household income families. This gave them more opportunities to interact with caregivers around print leading to more stimulation. They are likely to develop emergent reading faster than those from the low household income families. This suggests a potential socio-economic class bias that teachers will need to be aware of and prepared to offset so that this class bias is not perpetuated through discrimination.

### 5.3 Conclusion

Emergent reading is a relatively new topic in caregiving in Kenya. Traditionally reading was not important, but increasingly now it is. Literacy has become important internationally and Kenya is part of the global environment where literacy is a necessity. We cannot live in isolation. Reading has in essence become

a life skill. It has become inevitable to give children a head start in reading.

The findings of this study have brought out important implications for caregivers' involvement in children's emergent reading development. Without criticizing where we are, we need to participate more in developing our children in this very important area. The following recommendations arising from the findings of this study could go a long way in make this possible.

#### **5.4 Recommendations**

The following are specific recommendations for various categories of stakeholders in early childhood development and education in Kenya.

##### **5.4.1 Recommendations for Policy Makers**

Relevant ministries should provide policy guidelines and standards on each of the following:

- (1) The stimulation role of caregivers. The specific duties of the caregivers including children's emergent reading stimulation should be spelt out clearly with standards established for institutions and others who will care for infants and young children.
- (2) Provision of basic education for potential caregivers in secondary schools and at tertiary level. This could be offered as a limited course such as the the

former General Paper in the previous A level. The course could have topics relating to care and stimulation of infants and young children.

- (3) Develop a policy that paves way for development of an assessment program for purposes of identifying children's emergent reading progress, needs and remedial measures at preschool entrance and primary standard one level. This could be part of a broader assessment of children's development that will also identify children at risk because of physical and mental impairments.

#### **5.4.2 Recommendations For Curriculum Developers**

Curriculum programs on the following are necessary:

- (1) A curriculum for training trainers and caregivers on children's emergent reading development. This curriculum should integrate issues of children's emergent reading development, their needs in this development and caregivers' role in it. NACECE and other institutions could take the lead here and consider seriously the existing curricula that have been developed for Home Visiting Programmes and other projects relating to stimulation of infants and very young children.
- (2) A special curriculum should be developed for the under fours. This curriculum should include appropriate activities for enhancing children's emergent reading development. It should be availed to caregivers for purposes of supporting children's emergent reading development. Again,

existing curricula from international and local sources need to be reviewed and adapted for use in Kenya. Funding should be sought for this review and incorporation into programmes for the under fours.

- (3) A distinctive curriculum for potential caregivers in schools and colleges integrating basics of children's development knowledge and caregivers' role in it. This necessitates the development of this curriculum by the Ministry of Education through Kenya Institute of Education and NACECE with the input of local universities having ECD programmes.

#### **5.4.4 Recommendations for Early Childhood Trainers**

- (1) Early childhood trainers should develop at home intervention programs for purposes of equipping current caregivers. This can be done through home visiting by trainers and others who are in a position to influence caregiver involvement at home. Existing models employed in Kenya need to be reviewed and adapted as required for use by NACECE in their community mobilisation programmes, by MOH in their 21 Best Care Practices covered in the Integrated Management of Childhood Illness (IMCI) programmes and potentially by the Department of Social Services in their Division of Community Mobilisation projects.
- (2) Resource centres should be established at schools, churches, hospitals and well baby clinics and other central places. Trained personnel should be engaged to provide basic education and age specific guidelines to current

and potential caregivers. As part of this process, universities, NACECE or others can prepare user-friendly handouts of guidelines and activities that caregivers could use for distribution at these centres.

- (3) Trainers should also reach their targets via use of the third channel including newspaper articles, radio and television programmes to provide information on children's development and effective ways of stimulating it.

#### **5.4.5 Recommendations for Teachers**

Pre-schools and primary schools should have in place assessment programs for assessing children's preschool entrance ability in reading related development and necessary remedial activities for strengthening the foundation of the weak children in this area to ensure that they are well prepared for later reading success. TAC Tutors and DICECE could assist the schools in the development of these assessment programmes. Even universities could develop and pilot these programmes for broader use throughout Kenya.

#### **5.4.6 Recommendations for External Funding Agencies and Government**

- (1) In the earlier recommendations, various pilot projects have been mentioned that need to be funded. UNESCO, UNICEF, and Bernard van Leer among others should solicit requests for proposals for funding consideration. In addition, the Government through the Constituency Development Funds (CDF) should consider supporting the training seminars and workshops,

printing of curriculum materials, building resource centres and materials. They could also facilitate the development of local Income Generating Activities (IGA) to support community sensitisation and training programmes relating to the stimulation of infants and young children.

- (2) Research funding bodies should also consider extending funding for research

### **5.5 Further Research**

This study identified some major gaps that need further consideration in research.

These include:

- (1) Results of the study showed that there are factors other than those investigated in this study that contribute to behaviours and strategies employed by caregivers with young children around print. Various factors including caregivers' knowledge about children's development, caregivers' interest in children's activities and caregivers' self-efficacy need to be investigated with a larger sample in order to come up with more conclusive findings.
- (2) This study was an exploratory study. It focused on only one community in one region in Kenya. There is need for more intensive research to establish the status of children's emergent literacy development across other communities and regions in Kenya. This research should seek to establish:
  - The variations that exist in adult-child interactions around print across cultural and socio-economic groups.

- The distinctive social-cultural differences in literacy events and the effects of these differences on children's success in reading development.
  - The level of awareness about emergent literacy development across socio-cultural groups.
- (3) Research has identified several training and assessment programmes as well as pilot projects that need to be developed. In light of this it is necessary to conduct research on various modes of training and assessment programmes that are in place locally and internationally, ways of adapting them in order to effectively use them to achieve the required objectives in Kenya. Universities and other research bodies could address this emerging research area.
- (4) In addition there is need to conduct feasibility studies to identify specific grass root requirements for effective implementation of developed programmes.

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## APPENDICES

### Appendices A to C (Instruments used in the Multiple Case Studies)

#### Appendix A.1: Observation Checklist: Print Materials Checklist

Print materials	Tally	Frequency
Books		
Magazines		
Newspapers		
Pictures		
Bible or Koran		
Telephone directory		
Calendar		
Wall hangings		
Water/Electricity meters		
Door house numbers		
Water/Electricity/Telephone Bills		
Wall clocks		
Printed cloth		
Television		
Labelled bottles		
Bus tickets		
Price tickets		
Labelled plastic containers		
Labelled tins		
Labelled plastic bags		
Cards with print		
Other (Specify)		
Other (Specify)		

### Appendix A.2: Observation Checklist: Caregivers' Behaviours Checklist

Activity	Tally	Frequency
Read a Bible/ Koran as the child watches		
Read stories to the child		
Read books to the child		
Draw the child's attention to environmental print		
Show the child pictures/photographs		
Show the child how to hold a book		
Show the child how to turn pages in a book		
Draw the child's attention to books or pictures		
Encourage the child to pretend to read books		
Answer the child's questions about books		
Ask your child questions about books		
Read own books, newspapers, magazines or letters as the child is watching		
Read books with your child		
Appears to enjoy reading books to your child		
Prevent child from touching, holding or reading a book because of fear that he/she might tear it or make it dirty		
Leave child's questions about books unanswered because understand		
Ignores the child's questions about books		
Ignores the child's questions about pictures		
Beats/slaps or pinches a child for manipulating a book, or other print material		
Other (specify)		
Other (specify)		
Other (specify)		

**Appendix B: Emergent Reading Assessment Profile (E.R.A.P.)**

Child's name \_\_\_\_\_ Child's age \_\_\_\_\_

**I. Book Handling**

(The knowledge individuals have about the common characteristics of books)

Behaviour	Tally	Frequency
Grasps book with the hands and brings to the mouth to suck or chew		
Shakes crumbles and waves book		
Deliberately tears paper pages		
Tears book accidentally due to difficult in handling		
Rotates a book in an attempt to get a picture right-side up		
Turns an inverted book right-side up		
Moves from front to back when browsing in a book		
Turns pages in a book awkwardly		
Turns pages in a book from left to right		
Gives book to an adult to read		
Sits on an adults lap or on the floor for extended periods to look at book		

**II. Picture Reading**

This group of behaviours describes ways in which children may interact with pictures in books

Behaviour	Tally	Frequency
Intensely looks at pictures		
Laughs or smiles at a familiar picture		
Vocalizes while pointing to a picture		
Points correctly to a familiar object pictured when asked " where is....."		
Names objects pictured		
Makes animal or other sounds when the appropriate familiar pictures are seen e.g. "moo..." on seeing a picture of a cow or "boo...." on seeing a picture of a car		
Points to pictures and asks "What is that or indicates in another way that a label is desired		
Asks questions about a picture		
Answers questions about pictures		
Recognizes pictures on signs and other places in addition to print		
Labels objects in books		
Comments on pictures in books		

### III Story and Book comprehension

Behaviours that demonstrate that a child understands what a book is about or how something shown or said in a book relates to another book or to events in their own experiences

Behaviour	Tally	Frequency
Pretends to read		
Commands/requests to be read to		
Performs an action that is shown or mentioned in a book		
Makes associations in across books e.g. retrieves a second book about animals or gets two books to show that they contain similar objects or events		
Shows empathy for characters or situations depicted in books e.g. pretends to cry after seeing a child shown crying in a book or sad		
Talks about the characters and events in story books in ways which suggest that what has been said or read has been understood		
Relates events in books to own experiences		
Relates an object or an action in a book to the real world e.g. to get a ball after seeing a picture of a ball in a book		
Selects books on the basis of their contents thus demonstrating that understanding of what a book is about		
Looks through illustrations in a book and makes reasonable guesses about what might happen in the story		
Shows a favourite page of a book by searching for it or holding the book open at a certain page repeatedly, as if the part is particularly well understood or appreciated		
Makes comments about illustrations / or story being read to		
Pays attention to story		
Talks about book: comments might include; opinions, reactions, ideas about books		
Demonstrates understanding of book through drawing/scribbling		

#### IV Story Reading Behaviours

These behaviours refer to children's verbalizations in interaction with the story in a book and with the child's dawning awareness that the words said when reading a book are printed in the book

Uses book babbles		
Fills in the next word in the text before the adult reads it		
Reads to dolls or		
Indicates that print in books is noticed (e.g. points to labels under pictures as pictures are named)		
Asks to or pretends to read a book to an adult		
Moves finger or whole hand across a line of print and says something or babbles as if reading what is in print		
Recalls and retells story in own words		

## **Appendix C: Interview Schedule**

### **C.1: Main Caregivers level of education**

1. Have you ever gone to school?
2. Up to what level did you go to school?
3. If primary, what class did you school up to?
4. If secondary, what class did you school up to?
5. If college, how many years did you train?
6. If university, how many years of university education did you have?

### **C.2: Caregivers' Role definition**

1. Does a parent have any role to play in a child's reading development?
2. When does a child begin to benefit from reading experiences?
3. Why do you think so?
4. Do caregivers have a role to play in their children's reading development?
5. Would you like to help the child learn about books before he/she joins preschool?
6. Does your child know anything about reading?
7. What does he/she know about reading?
8. If he does how has he/she learnt it?
9. Would you like to provide the child with reading materials before he/she joins preschool?
10. Who should be the first person to involve a child with reading-related activities?
11. Would you like to be involved in your child's reading development before his or her entry to preschool?
12. If you would like to be involved, why would you like to be involved?
13. If you would not like to be involved why would you not like to be involved?
14. Does it matter to you whether a child has reading experiences before going to school or not?
15. When should a caregiver begin to get involved in a child's reading related development?

### C.3: Barriers and Constraints/Problems

1. Do you consciously do certain things when you are with the child around print materials?
2. **If "Yes" response**
  - (a) If so what do you normally do with the child around print materials
  - (b) Why do you do that with the child around print materials?
  - (c) Are there reasons why you behave the way you do with a child around print materials
- If "No" response**
  - (a) Why do you not do anything with the child around print materials?
  - (b) Are there factors that cause you not to do anything with the child around print materials?
  - (c) Which factors are these?
3. Tell me whether each of the following problems frequently, sometimes, rarely or never influences you in your efforts to provide your child with print materials.
  - (a) Lack of money
  - (b) Time constraints
  - (c) Lack of interest in the child's activities
  - (d) Lack of knowledge about what books you should buy for the child
  - (e) Lack of knowledge about how you should get involved
  - (f) Thinking that the child is too young to benefit
  - (g) Lack of knowledge about how to deal with the child around the print materials
  - (h) Feeling incompetent to help the child
4. Tell me any other difficulties that have influenced what you do with the child around print materials and how often they influence you?

## Appendices D to E (Instruments used in the survey)

### Appendix D: Parent's or Guardians information

Child's Name.....

Age of the Child.....

#### D.1 Personal and Demographic Information.

Answer the following questions honestly and accurately.

1. Who takes care of the child during the day?.....
2. How long has this person taken care of this child?.....Years.....Months
3. (a) Indicate the father and mother's or guardian's occupation in the following table
  - (b) Indicate the father and mother's or guardian's salary by ticking against the appropriate salary bracket in the table below
  - (c) Indicate the father, mother's or guardian's level of education by ticking against the appropriate bracket in the table below

#### Household income

		Father	Mother	Guardian
Occupation				
Salary per month (If employed)	Above 60,000 KSHS			
	Between 40,000 and 59,000KSHS			
	Between 30,000 and 39,000KSHS			
	Between 20,000 and 29,000KSHS			
	Between 10,000 and 19,000KSHS			
	Between 5,000 and 9,000KSHS			
	Below 5,000KSHS			
Education Indicate the father's, mother's or guardian's level of education by putting a tick (✓) in the appropriate row and column	University	PhD		
		Masters degree		
		First degree		
		Diploma		
	College	Diploma		
		Certificate		
	High school			
	Primary School			
	Preschool			
No schooling				

**Other income sources**

Indicate other sources of household income by ticking in the appropriate column

Source of income	Approximate income (KSHS)					
	Below 5,000	Between 5,000 and 10,000	Between 10,000 and 19,000	Between 20,000 and 29,000	Between 30,000 and 40,000	Above 40,000
Business						
Farming (Agriculture)						
Livestock						
House rents						
Other (specify)						
Other (specify)						



**E.3: Caregivers' Role definition**

1. A caregiver has a role to play in a child's reading development.  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
2. A child begins to benefit from reading experiences before he goes to preschool.  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
3. Mothers/caregivers have a role to play in their children's reading development  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
4. I would like to help my child learn about books before he/she joins preschool  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
6. I would like to provide my child with reading materials before he/she joins preschool.  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
7. The preschool teacher should be the first person to involve a child with reading-related activities.  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )
8. I would like to be involved in the child's reading development before his or her entry to preschool.  
 I strongly agree ( )    I agree ( )    I am not sure ( )  
 I disagree ( )    I strongly disagree ( )

9. It matters to me whether a child has reading experiences before going to school or not.  
 I strongly agree ( ) I agree ( ) I am not sure ( )  
 I disagree ( ) I strongly disagree ( )
10. A parent or caregiver should begin to get involved in a child's reading related development before the child joins preschool.  
 I strongly agree ( ) I agree ( ) I am not sure ( )  
 I disagree ( ) I strongly disagree ( )

#### E.4: Barriers and Constraints/Problems

Indicate how often you each of the following problems and constraints influence the way you behave with the child around print materials.

Constraint/Problem	Very frequently	Moderately	Rarely	Never
Lack of money				
Time constraints				
Lack of interest in the child's activities				
I do not know what books I should buy for the child				
I do not know how I should get involved				
I do not know that it's important for me to get involved				
I think the child is too young to benefit				
I do not know how to deal with the child around the print materials				
I do not feel competent to help my child develop reading				
Other (specify)				
Other (specify)				