HOME LITERACY ENVIRONMENT AND DEVELOPMENT OF EARLY LITERACY ABILITIES OF 3-4 YEAR-OLD CHILDREN IN KAKAMEGA CENTRAL SUB COUNTY, KENYA

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NOVEMBER, 2017
DECLARATION

I declare that this thesis is my original work and has not been presented in any other university or institution for consideration of any certification. This thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited in accordance with anti-plagiarism regulations.

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# TABLE OF CONTENTS

DECLARATION .................................................................................................................................................. ii

ACKNOWLEDGEMENTS .................................................................................................................................... iii

TABLE OF CONTENTS ........................................................................................................................................ iv

LIST OF TABLES .................................................................................................................................................. x

LIST OF FIGURES ............................................................................................................................................... xii

ABBREVIATIONS AND ACRONYMS ................................................................................................................. xiii

ABSTRACT ............................................................................................................................................................. xv

CHAPTER ONE ...................................................................................................................................................... 1

INTRODUCTION AND BACKGROUND TO THE STUDY ..................................................................................... 1

1.0 Introduction ..................................................................................................................................................... 1

1.1 Background to the Study ................................................................................................................................ 1

1.2 Statement of the Problem .................................................................................................................................. 11

1.3.1 Purpose of the Study ...................................................................................................................................... 13

1.3.2 Objectives of the Study ................................................................................................................................. 13

1.3.3 Research Hypotheses ....................................................................................................................................... 14

1.4 Significance of the Study ................................................................................................................................... 15

1.5 Delimitations and Limitations of the Study ...................................................................................................... 16

1.5.1 Delimitations for the Study ......................................................................................................................... 16

1.5.2 Limitations of the Study ............................................................................................................................... 17

1.6 Basic Assumptions of the Study ..................................................................................................................... 18

1.7 Theoretical and Conceptual Framework of the Study ..................................................................................... 19

1.7.1 Theoretical Framework .................................................................................................................................. 19
1.7.1.1 The Bio-ecological Theory .......................................................... 20
1.7.1.2 The Emergent Literacy Theory .................................................... 25
1.7.2 Conceptual Framework of the Study ................................................. 30
1.8 Operational Definitions of Terms ....................................................... 32

CHAPTER TWO .................................................................................. 36

REVIEW OF RELATED LITERATURE .................................................. 36
2.0 Introduction ...................................................................................... 36

2.1 The Concept of Early Literacy .......................................................... 37

2.2 Early Literacy Skills, Reading Development and School Success .......... 42
2.2.1 Early Literacy Skills and Reading Development ............................... 43
2.2.2 Predictors of Early Literacy Development and Reading Ability ........ 46

2.2.3 Estimation of Early Literacy Skills ................................................. 50
2.2.4 Early Literacy Skills, Reading Development and School Success ....... 53

2.3 Domain Elements of Early Literacy Skills ......................................... 58
2.3.1 Oral Language .............................................................................. 58
2.3.2 Phonological Awareness .............................................................. 60
2.3.3 Book Knowledge and Appreciation .............................................. 62
2.3.4 Print Awareness and Concepts ...................................................... 65
2.3.5 Alphabet Knowledge .................................................................. 66
2.3.6 Print Motivation .......................................................................... 68

2.3.7 Early Writing .............................................................................. 70

2.4 Early Childhood Period as a Prime Time for Literacy Development ...... 72

2.5 Conceptualizing the Home Literacy Environment ................................ 77
2.5.1 Home Literacy Environment as a Predictor of Early Reading Development .................... 82
2.5.1.1 Parental Demographic Characteristics and Early Literacy Development .................. 84
2.5.1.2 Parental Literacy Beliefs and Early Literacy Development ................................. 93
2.5.1.3 Parent-Child Literacy Practices and Early Literacy Development ....................... 99
2.5.1.4 Home Literacy Resources and Early Literacy Development ............................... 104
2.6 Summary of Literature Review and Identification of Gaps in Literature ...................... 105

CHAPTER THREE ................................................................................................ 111

RESEARCH DESIGN AND METHODOLOGY .................................................. 111

3.0 Introduction ........................................................................................................ 111
3.1 Research Design ................................................................................................. 111
3.2 Location of the Study .......................................................................................... 114
3.3 Target Population ............................................................................................... 115
3.4 Sampling Techniques and Sample Size ............................................................. 115
3.4.1 Sampling Techniques ...................................................................................... 115
3.4.2 Sample Size .................................................................................................... 117
3.5 Variables .............................................................................................................. 118
3.5.1 Dependent Variable ....................................................................................... 118
3.5.2 Independent Variables .................................................................................... 119
3.6 Research Instruments .......................................................................................... 120
3.6.1 Perception of Literacy Learning Questionnaire for Parents / Guardians ............ 121
3.6.2 Home Educational Resource (HER) Checklist .............................................. 124
3.6.3 Focused Group Discussion Guides for Preschool Class Teachers .................... 125
3.6.4 Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for 3-4 year olds ....... 126
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6.5</td>
<td>Document Analysis Guide (DAG)</td>
<td>127</td>
</tr>
<tr>
<td>3.7</td>
<td>Pilot Study</td>
<td>128</td>
</tr>
<tr>
<td>3.7.1</td>
<td>Validity</td>
<td>128</td>
</tr>
<tr>
<td>3.7.2</td>
<td>Reliability</td>
<td>129</td>
</tr>
<tr>
<td>3.8</td>
<td>Data Collection Techniques</td>
<td>131</td>
</tr>
<tr>
<td>3.9</td>
<td>Data Analysis</td>
<td>132</td>
</tr>
<tr>
<td>3.9.1</td>
<td>Quantitative Data Analysis</td>
<td>132</td>
</tr>
<tr>
<td>3.9.2</td>
<td>Qualitative Data Analysis</td>
<td>135</td>
</tr>
<tr>
<td>3.10</td>
<td>Logistical and Ethical Considerations</td>
<td>138</td>
</tr>
<tr>
<td>3.10.1</td>
<td>Logical Considerations</td>
<td>138</td>
</tr>
<tr>
<td>3.10.2</td>
<td>Ethical Considerations</td>
<td>138</td>
</tr>
<tr>
<td>4.0</td>
<td>Introduction</td>
<td>140</td>
</tr>
<tr>
<td>4.1</td>
<td>Parents/Guardians General and Demographic Characteristics</td>
<td>142</td>
</tr>
<tr>
<td>4.1.1</td>
<td>Parents/Guardians Gender, Marital status, Family Structure, Parental Age, Residential Area and Education Level</td>
<td>143</td>
</tr>
<tr>
<td>4.1.1.1</td>
<td>Parents’/ Guardians’ Gender (n = 72)</td>
<td>144</td>
</tr>
<tr>
<td>4.1.1.2</td>
<td>Marital Status of Parents/ Guardians (n = 72)</td>
<td>145</td>
</tr>
<tr>
<td>4.1.1.3</td>
<td>Parents/Guardians by Family Structure (n = 72)</td>
<td>146</td>
</tr>
<tr>
<td>4.1.1.4</td>
<td>Age of Parents/ Guardians (n = 72)</td>
<td>147</td>
</tr>
<tr>
<td>4.1.1.5</td>
<td>Parents/Guardians by Area of Residence</td>
<td>149</td>
</tr>
<tr>
<td>4.1.1.6</td>
<td>Level of Educational Attainment of Parents/ Guardians (n = 72)</td>
<td>151</td>
</tr>
</tbody>
</table>
4.1.1.7 Parents’ / Guardians’ Occupation and Average Monthly Income (n = 72)......................154
4.1.1.8 Parental Demographic Characteristics as Predictors of Early Literacy Abilities of 3-4 year old Children .........................................................................................................................159
4.3 Parents Literacy Beliefs (PLBs) and Early Literacy Abilities of 3-4 year Olds ..........164
4.3.1. Parent /Guardians Reading Behavior and Habits ..........................................................165
4.3.2 Parents’ Beliefs in ELSs as a Prerequisite to Reading Development..........................169
4.3.3 Parents’ Opinions on their Role as First and Prime Educators of Children ...............172
4.3.4 Parents’ Ideas about Home Environment as the First Literacy Resource ...............176
4.4 Parent-Child Literacy Practices (PCLPs) Influencing Development of ELSs of 3-4 year-olds ...................................................................................................................................201
4.5 Home Literacy Resources (HLRs) and Influence on ELSs of 3-4 year-Olds .............213

CHAPTER FIVE .........................................................................................................................224

SUMMARY OF THE FINDINGS, RECOMMENDATIONS AND CONCLUSION..........224
5.0 Introduction ......................................................................................................................224
5.1 Summary of the Study ...................................................................................................224
5.1.1 Parental Demographic Characteristics as Predictors of Early Literacy Outcomes of 3-4 year old children ..............................................................................................................226
5.1.2 Parents’ Literacy Beliefs and Early Literacy Abilities of 3-4-year-Old Children........226
5.1.3 Parent Child Literacy Practices and Early Literacy Outcomes of 3-4 years Olds........228
5.1.4 The Relationship between Home Literacy Resources and Early Literacy Outcomes of 3-4 year Old Children ..............................................................................................................233
5.2 Conclusions .....................................................................................................................234
5.2.1 Parental Demographic Characteristics as Predictors of Early Literacy Outcomes of 3-4 year old children ........................................................................................................... 235

5.2.2 Parents’ Literacy Beliefs and Early Literacy Abilities of 3-4-year-Old Children ........ 235

5.2.3 Parent Child Literacy Practices and Early Literacy Outcomes of 3-4 years Olds .......... 236

5.2.4 The Relationship between Home Literacy Resources and Early Literacy Outcomes of 3-4 year Old Children ....................................................................................................................... 237

5.3 Recommendations ........................................................................................................ 238

5.3.1 Re-examination of the National Early Childhood Curriculum and Policy in Kenya .... 239

5.3.2 Design and Implementation of Family Literacy Programs or Services .................. 240

5.3.3 Paradigm Shift in Research Practice ........................................................................... 240

5.3.4 Establishment of Community Literacy Resource Centres in Counties .................. 241

5.3.5 Early Literacy Assessment Tools and Programs ......................................................... 242

5.3.6 Suggestion for Further Research .............................................................................. 243

REFERENCES ...................................................................................................................... 244

APPENDIX I: Letter of Introduction ................................................................................... 282

APPENDIX II: Parent Consent Letter ................................................................................... 283

APPENDIX III: Preschool Teachers’ Information Sheet .................................................... 284

APPENDIX IV: Questionnaire for Parents and Guardians .................................................. 285

APPENDIX V: Home Educational Resource Measure/Checklist ....................................... 289

APPENDIX VI: Focused Group Discussion Guide for Preschool Class Teachers ............... 290

APPENDIX VII: Dynamic Indicators of Basic Early Literacy Skills for Children .............. 292

APPENDIX VIII: Authority to Carry out Research ............................................................... 294

APPENDIX IX: Research Permit ........................................................................................ 295

APPENDIX X: Map Showing Kakamega Central Sub county, Kenya .................................. 296
LIST OF TABLES

Table 1: Sample Size Matrix ........................................................................................................... 118
Table 2. Summary of Research Instruments .................................................................................... 121
Table 3: Reliability Coefficients for Parents or Guardians Questionnaire ............................. 130
Table 4: Summary of Data Analysis Plan By Objective ................................................................. 137
Table 5: Distribution of Parent/Guardians by Gender, Marital status, Family type, Age, Residential Area and Education Level (n = 72) .................................................................................................................. 143
Table 6: Distribution of Parent/Guardians by Level of Educational Attainment (n = 72) .... 152
Table 7: Distribution of Parents/Guardians by Average Monthly Income (n = 72) .......... 157
Table 8: Distribution of Households by Family Size ................................................................. 158
Table 9: Fitness of the Regression Model ...................................................................................... 158
Table 10: Analysis of Variance from Multiple Regression Results ........................................ 160
Table 11: Estimated Model Coefficients ....................................................................................... 161
Table 12: Extent of Parents’ Belief in ELSs as Prerequisite to Reading Development (n = 72) .. 170
Table 13: Extent of Parents’ Belief on their Role as the First Educators of their Children (n = 72) ........................................................................................................................................ 173
Table 14: Extent of Parents’ Approval of Home Environment as the ......................................... 177
Table 15: Phonological and Oral Competencies of 3-4 years old Children by Location .......... 181
Table 16: Book Knowledge and Print Motivation Outcomes of 3-4 year olds by Location ...... 186
Table 17: Pre-Writing Skills of 3-4-Year-old Children by Location ............................................. 187
Table 18: Crosstab Pearson Product Correlation Coefficient Result between Parents’ .......... 196
Table 19: Univariate Analysis between Parent’s Belief System and Early Literacy Skills .... 199
Table 20: Frequency of Engagement in selected PCLPs by Location ........................................202
Table 21: Parents Views on Value of a Selected PCLPs on ELSs Development .........................207
Table 22: Thematic Categories of Parent-Child Literacy Practices ...........................................211
Table 23: ANOVA Results on the Effect of Parent-Child Literacy Practices on ELSs ...............211
Table 24: Distribution of Home Literacy Resources by Location ...........................................214
Table 25: Parents’ Views on Effectiveness of Selected HLRs in Reading Development ..........217
Table 26: Categorized Themes of HLRs available in the Households .......................................220
Table 27: Univariate Results Showing the Relationship between HLRs and Early ..............221
LIST OF FIGURES

Figure 1: Conceptualizing the Relationship between Home Literacy Environment and Early Literacy Ability .......................................................... 30

Figure 2: Distribution of Parents/Guardian by Age (n = 72) ........................................ 147

Figure 3: Distribution of Parent/Guardians by Residential Area .................................. 150

Figure 4: Respondents’ Occupation (n = 72) ................................................................ 156

Figure 5: Parents’/Guardians’ Self reports on Individual Reading Behaviour (n = 72) .... 166

Figure 6: Self Reports on Frequency of Reading Behavior by Parents/Guardians .......... 167
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
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<td>ADEA</td>
<td>Association for the Development of Education in Africa</td>
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<td>AEDI</td>
<td>Australian Early Development Index</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>AK</td>
<td>Alphabetical Knowledge</td>
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<td>AMSRS</td>
<td>Australian Market and Social Research Society</td>
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<td>ANOVA</td>
<td>Analysis of Variance</td>
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<td>DCSF</td>
<td>Department for Children, Schools and Families</td>
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<td>DIBELS</td>
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<td>ECDE</td>
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<td>Emergent Literacy Model</td>
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<td>Education for All</td>
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<td>Early Grade Reading Assessment</td>
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<td>Environmental Opportunity Hypothesis</td>
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<td>EPPE</td>
<td>Effective Provision of Pre-School Education</td>
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<td>Ethical Review Board</td>
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<td>Early Writing</td>
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<td>HLE</td>
<td>Home Literacy Environment</td>
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<td>IRA</td>
<td>International Reading Association</td>
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<td>KNALS</td>
<td>Kenya National Adult Literacy Survey</td>
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<tr>
<td>KNEC</td>
<td>Kenya National Examinations Council</td>
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<tr>
<td>MMR</td>
<td>Mixed Methods Research</td>
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<td>MALP</td>
<td>Monitoring Achievements in Lower Primary</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>National Early Literacy Panel</td>
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<td>NAEYC</td>
<td>National Association for the Education of Young Children</td>
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<td>NACOSTI</td>
<td>National Commission for Science Technology and Innovation</td>
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<td>NAEP</td>
<td>National Assessment of Educational Progress</td>
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<tr>
<td>NASMLA</td>
<td>National Assessment Systems for Monitoring Learner Achievement</td>
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<tr>
<td>NCES</td>
<td>National Center for Education Statistics</td>
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</tr>
<tr>
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<td>Parent Child Literacy Activities</td>
</tr>
<tr>
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<td>Parent Child Literacy Practices</td>
</tr>
<tr>
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<td>Print Knowledge</td>
</tr>
<tr>
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<td>PMCC</td>
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<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>PIRLS</td>
<td>Progress in International Reading Literacy Study</td>
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<tr>
<td>PRAESA</td>
<td>Project for the Study of Alternative Education in South Africa</td>
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<tr>
<td>RTII</td>
<td>Research Triangle Institute International</td>
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<tr>
<td>RRM</td>
<td>Reading Readiness Model</td>
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<tr>
<td>SACMEQ</td>
<td>Southern Africa Consortium for Monitoring Education Quality</td>
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<tr>
<td>SECCYD</td>
<td>Study of Early Child Care and Youth Development</td>
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<tr>
<td>SMRS</td>
<td>Systematic Method for Reading Success</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Scientists</td>
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<td>UNCRRC</td>
<td>Convention on the Rights of the Child</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific, and Cultural Organization</td>
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<td>UNHDR</td>
<td>United Nations Human Development Report</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Education Fund</td>
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<td>UPE</td>
<td>Universal Primary Education</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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ABSTRACT

Literacy development is a multiplex process that begins at birth, continues throughout life and is fostered through stimulating interactions within two instructional environments. Home is the first primary literacy resource that affords a child the best opportunities for literacy practice. A parent is the first primary educator and a potent force in shaping a child’s literacy. By creating literacy-rich homes, parents provide a head start and thrust forward into a child’s literacy journey, academic and life success. In Kenya, school related factors contributing to literacy development are well documented. However, how the home context stimulates literacy development has not received sufficient research attention. Guided by the belief that developmental antecedents underlying literacy development are found prior to onset of formal schooling and, that deficiencies become monumental as they accumulate exponentially over time, this study examined the influence of Home Literacy Environment on development of early literacy abilities among 3-4-year-olds in Kakamega Sub-county Kenya. Specifically, the study sought to establish the relationship between Parents’ Demographic Characteristics, Parental Literacy Beliefs, Parent Child Literacy Practices and Home Educational Resources on development of early literacy abilities of 3-4-year-old children in Kakamega Central Sub Count. Anchored on bio-ecological systems theory by Bronfenbrenner and the Emergent Literacy theory by Clay, the study employed Mixed Method Research approach. Specifically, cross sectional and corelational research designs. Respondents were 3-4-year-old children (average age=45months) and their caregivers. Based on stratified, purposive and simple random sampling techniques, 72 children, 72 parents/guardians and 24 preschool teachers from 12 public attached and 12 privately owned preschools within the urban, sub-urban and rural locations of Kakamega Central Sub County were selected and responded to the study. Qualitative data was obtained by means of questionnaire and Focus Group Discussion guides. Quantitative data was generated from indices, scales and checklists of Parent Literacy Beliefs, Parent- Child Literacy Practices and Home Educational Resource. An adapted assessment tool, Dynamic Indicators of Basic Early Literacy Skills estimated early literacy abilities of 3-4-year-old children. Piloting was done in three preschools and inter-rater reliability of qualitative data was established using Cronbach’s alpha statistics. Qualitative data was coded to create thematic categories and presented using descriptive statistics. Pearson’s Moment Correlation Co-efficient established relationship between variables, ANOVA determined mean differences among study variables and Multiple regression measured the quality of the prediction of the early literacy skills attainment. Results revealed that age, gender, family size, parental education level and income are not only key facilitative factors for parental involvement but also significant predictors of early literacy outcome. Parental belief system, literacy practices and availability of home literacy resources were more powerful predictors of ELSs of young children. Developmentally appropriate settings, language enriched communication environment that comprised of printed materials and social support from caregivers were identified as special ingredients that encouraged early forms of reading and writing to flourish and develop into conventional literacy. These were provided at varying levels within the three stratified locations of Kakamega Central Sub-county. High SES households provided stimulating home literacy environment than low SES households. Pre-kindergarteners from high SES households had superior early literacy skills. The study recommends that families be incorporated more explicitly within development and educational agenda of young children. Family literacy programs should be designed with adequate attention to PLBs, HERs and PCLAs for a strong literacy foundation before formal literacy instruction in Kenya.
CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

This chapter sets out the background to the study and presents the statement of the problem. It also outlines the study purpose, research objectives and hypotheses, study significance, limitations and delimitations as well as assumptions. At a glance, it highlights definitions for the study indicators and terms as used in the study. The chapter sums up with a presentation on theoretical underpinning and conceptual model of the study.

1.1 Background to the Study

Of all the core competencies recognized to contribute to academic achievement, lifelong learning and sustainable development, none is quite as central as the ability to read and write (UNESCO, 2007). Literacy is not only essential in achieving each of the Education for All (EFA) goals but also eyed as a key driver for socio-economic transformation of societies (National Council for Curriculum and Assessment, 2011). It confers to individuals, families, communities and nations a set of premiums, for instance, personal empowerment, divergent and rational thinking, decision-making, poverty reduction, cultural identity, equity, active participation in local and global community and, sustainable development (Stromquist, 2005, Trudell, 2009; Odora-Hoppers, 2009). As such, UNESCO (2004) declares literacy as a prerequisite for development and a central means through which people’s capabilities to cope with evolving challenges and complexities of life are built. Conversely, illiteracy is
equated with failure to cope with the demands of life and inability to prosper in modern

Using a rights-based lens, literacy is a critical component of inclusion for human
development, an inherent right to Education for All (EFA) and a cornerstone of freedom and
democracy (UNESCO, 1995; World Declarations on Education for All, 1990; UNCRC
1989). It is perhaps, one of the most crucial elements in positioning children for active
participation in a literary society. Partly, this high demand can be explained in the light of
internationalization of the economic marketplace and a rapid influx of technology virtually
in every sphere of human life (Carnevale, 1991). As a matter of fact, even the real agrarian
communities, now, more than ever, acknowledge literacy as a basic survival tool (UNESCO,

In education practice and related discourse, literacy ability has far-reaching effects
spreading across the elementary to primary grade school years and into adulthood
(Department for Education and Skills, 2004). It is a critical component of all educational
experiences, a vital academic component that influences skill acquisition in other academic
areas and leads to substantial impact on learning over time (UNESCO, 2007: 2004; USAID,
2007; Pence & Justice, 2008). For it is widely accepted that language skills are fundamental
to mastery of school literacy, overall school success and, are generally the obstacles to
achievement in many complex reading and writing tasks in examinations (Cregan, 2008;
For decades now, literacy is at the heart of most basic grade curricula, adult and lifelong learning programs world over (UNESCO, 2007). Evidence exist on special links between literacy and school retention, graduation and success. For instance, International Reading Association and National Association for the Education of Young Children (IRA-NAEYC) (1998), identifies literacy as a powerful predictor for academic achievement. Similarly, Desmond and Elfert, (2008) distinguish it as a useful ingredient in determining whether an individual will contribute meaningfully in an increasingly literate society or not. Put succinctly, literacy is a catalyst for learning throughout life. Probably, this justifies why USAID in 2007, declared that one of the three key educational goals should be to improve reading skills for 100 million children in early grades by 2015.

In line with this new attention, world nations’ economic, civic and social success is today pegged on Educational attainment for All (EFA). Promoting literacy standards has remained a top priority agenda among nations. In Kenya, literacy remains one of the most vital tools for unlocking the economic potential, a means towards achieving a middle level economic status as envisioned in blue-print, the Vision 2030 and a powerful driver towards Sustainable Development Goals (MOEST, 2001; GoK, 2007). Kenya not only enshrines this basic right in her constitution, but enforces the Basic Education Act, which recognizes the right of every child to free and compulsory basic education. Kenya commits to this pursuit by heavily investing on basic education and adult literacy programs (MOEST, 2001; GoK, 2007; RoK, 2001:2013).
Even so, illiteracy is still the greatest world challenge (National Center for Education Statistics 2009a). International Statistics show that significant numbers of children and adults do not acquire literacy skills for success in school and in the work place (Mullis & Jenkins, 1990; US Department of Education, 2001c). As depicted in two surveys, (NCES, 2009a & NAEP, 2003) high percentages of children in America read below basic levels. Additional statistics show that not only one-third of America’s fourth graders read at too low levels to complete school work, but also that 8th- 12th graders and adults’ literacy attainment was dismal (Lee, Grigg, & Donahue, 2007).

Most disquieting was Latino and African American fourth graders’ literacy analysis, which stood at, 56 percent and 60 percent, respectively (Lee et al., 2007). Elsewhere, Australian Curriculum Assessment and Reporting Authority (2012) and Australian Early Development Index (2009) illuminate a similar scenario. Despite adequate intelligence and opportunity, many Australian early graders had failed to acquire literacy skills. From the AEDI analysis, 25% of Australian Year 9 students scored below the benchmark for minimum achievement in reading whereas the ACARA (2012) analysis indicated that 52 per cent of Australians aged 15 to19 had literacy skills that were insufficient to meet the demands of everyday life and work in the emerging knowledge-based economy.

The most devastating literacy analyses have been reported in Sub Saharan Africa. Even though, African literacy rates have doubled in the last two decades, they are still the lowest in the world. The continent has the largest number of countries with literacy rate below 50% (Mullis, Martin, Kennedy, & Foy 2007). Just recently, Research Triangle Institute
International (2011) publication dubbed ‘Early Grade Reading Assessment’ based on at least 50 countries, (23 of them from Africa), showed that between 80% to 95% of children at the end of Grade 2 cannot read one word of a simple story (Gove & Cvelich, 2011). Barely a year before this release, Southern Africa Consortium for Monitoring and Education Quality (2010) published similar results. From SACMEQ report, Zambia recorded the lowest reading achievement scores, that is, 43% among children and high illiteracy among adults in comparison to Mauritius, Seychelles, Tanzania and Kenya. Approximately, 25% of Zambian grade six pupils could not read at minimum level of proficiency while only 3% could read at desirable levels, despite heavy investments to improve reading skills from pre-grade to grade four (Jere- Folotiya, Chansa-Kabali, Munachaka, Sampa, Yalukanda, Westerholm & Lyytinen, 2014; Mubanga, 2012; Mwanza, 2012; Matafwali, 2010). Even though, Kenya was reported as one of highest scoring countries by international comparisons (SACMEQ and RTII), only 30 % of Grade 3 students in Kenya, could read a simple Grade one level passage in English.

Early grade literacy analysis in the region, has persistently posted disturbing profiles. According to EFA Global Monitoring report of 2010 and Uwezo (2011: 2012) publication dubbed, “Are Our Children Learning?” large masses of children in early grades read below basic skill level across the region. So, as much as Kenya boasts of nearly achieving Universal Primary Education (UPE), her children are not acquiring basic literacy skills in their first three years of schooling and the numbers of struggling readers in many grade levels have continued to soar. Approximately, one-third of Kenyan second graders are non-readers and half of these pupils scored zero in comprehension as per Uwezo Report (2012).
By regional comparison, Western Kenya literacy analysis has remained one of the poorest (12 % points lower than the national average). Precisely, only 20% of class three children in Kakamega County can read a class two story (Uwezo, 2012; KNEC, 2010).

From this synthesis, one can only imagine how complexity of content in the elementary grade curriculum contrasts starkly with children’s language and literacy struggles. Without exaggeration, it is reasonable to conclude that many Kenyan children in Grade 3 are still learning the alphabet and identifying letters. As put by Arasa (2004) they are ‘learning to read’ yet, they are ‘expected to read to learn’. Certainly, this provides impetus and an urge to address the mosaic of interrelated forces that shape literacy if we are truly committed to giving our children a better chance to position themselves in the current knowledge society.

Up to date, literacy promotion schemes in Kenya are hinged almost exclusively on the-‘leave it to school approach’ (Uwezo, 2011: 2012; McPike, 1995) even when it is apparent that there are two instructional and/or social environments for literacy development. Policies, research, intervention programs and investments are more common in elementary instructional contexts and school age children are the common beneficiaries. Strictly, the focus has been on teacher development (Marima, 2014), language of instruction (Githinji, 2014), reading disabilities and errors (Runo, 2010; Runo, Mugo & Karugu, 2013; Kang’ethe, (1988), resources, methods and materials (Marima, 2014) and curriculum coverage. The assumption here has been that literacy is a function of school and that good teaching will automatically direct children’s literacy developmental trajectory. The current dilemma is; do school based initiatives reach all children? Do they provide children with life-long learning competencies? (Uwezo, 2012).
Truly, a majority of Kenyan children now access basic formal education, but what is glaring (Uwezo 2010: 2011: 2012; KNEC, 2010) is that Kenyan children do not have basic literacy skills even after spending three years in school. Huge numbers of struggling readers have continued to be churned out of elementary grades (UNESCO, 2001; KNEC, 2010). Classroom-based interventions have recorded limited impact and perhaps, it suffices to say that schooling in Kenya has simply managed to widen the gap between good and poor readers (Speece & Cooper, 2002; Neuman & Roskos 2007). Pertinent questions thus emerge: Why does literacy failure persist despite expanded education access and huge financial investment? More importantly, why does literacy failure persist even with intensive classroom interventions in lower primary grades? Could the home literacy environment be player in this? How does the home environment assert its influence on early literacy development?

Meanwhile decades of empirical evidence shows that home based intervention is at the heart of early grade literacy discourse in international research. It is recognized as the most effective and economically viable mechanism for fostering and sustaining a child’s literacy development (OECD, 2002; Zygouris-Coe, 2007; Willenberg, 2007). Strands of publications from the West, acknowledge primary care givers as potent forces with immediate effect and life time impact on literacy development. According to reports by NELP (2003) and NAEYC, (2006), home is the first primary literacy resource that affords a child the best opportunities for literacy practice. It is the first setting in which language and literacy are typically first encountered and the most enduring school. Parents are therefore chief
supporters, teachers that children have for the longest time and potentially the most important people in the education of their children. Over and above, home setups are believed to offer developmentally appropriate settings, materials, experiences and social support that encourage early forms of reading and writing to flourish and develop into conventional literacy.

Nonetheless, the potential of families in the reading and writing development has remained untapped in some parts of the world. Specifically, parents’ demographic characteristics and practices have not gained considerable attention in analyzing children’s literacy trajectory in sub-Saharan Africa. Home is not yet a priority context for reading development research in Kenya and educational trends do not show any fundamental focus on the family environment. Evidence exist albeit scanty for instance Wambiri’s (2007) exceptional report on the role of families in nurturing skilled reading in Thika District, Kenya. The study ‘Caregivers Behavior with Print and Children’s Emergent Reading Development’ not only illuminated the phase of development from birth to six years as a time of remarkable brain development when stimulation is most profitable, but also demonstrated the potential benefits of stimulating home environment on literacy development before formal instruction (Wambiri, 2007).

In much detail, neuroscience underscores the role of Home Literacy Environment (HLE). According to brain analysis, early childhood period is a ‘critical window of opportunity’ and a ‘fertile time’ when the developing brain is most susceptible to environmental input and most capable of wiring skills at an optimal level (Dickson & Essex,
Bronfenbrenner (1988) and others (Vygotsky 1978; Clay 1966) provide a theoretical underpinning on this. According to Bronfenbrenner literacy development is a profoundly lifelong, slow building (a continuation of a previous learning history) and social developmental process, experienced within the primary context. He puts forth a significant relationship between HLE and literacy failure in school and beyond. Importantly, he appreciates the dynamic, multilevel and interactive nature of literacy. Perhaps, this is well expressed in Stanovich’s (1986) well-known paper “Matthew effects: the rich get richer and the poor get poorer” (Oka & Paris, 1986; UNESCO, 2006; Lonigan, Burgess, & Anthony, 2000). This paper typically explains that a poor first-grade reader almost invariably continues to be a poor reader. Precisely put, a child who cannot read by grade one, will stay behind forever as the gap widens making him/her fall behind in everything else.

Elsewhere, Snow et al (1998) acknowledges that the differential effects on literacy achievement in early school years are closely tied to the quality and quantity of literacy-related experiences in early childhood. Hart and Risley, (1995, p 29) spices this argument by stating that: “…individual difference among children in pre-literacy skills is meaningful and that early differences contribute significantly to longitudinal outcomes in children’s reading achievement”. Putting more light through an economic lens is Crouch (2012), who found out that it is far too expensive to compensate for education disadvantage among older children or /and adults, than it is to provide preventative measures and support in early childhood. Specifically, intervention initiatives (for example Nord, Lennon, Liu & Chandler 2000) stress that reading difficulty for disadvantaged and hardest-to-reach children is more likely to be influenced through prevention rather than remediation.
Today, literacy research and practice acknowledges a set of environmental intermediaries that exert unique influence on a child’s literacy development, one being, the Home Literacy Environment (Dickinson & Neuman, 2006; Harris & Goodall, 2007; Ezell & Justice, 2005) the school and community. For a fact, psychologists are increasingly reaching a conclusion that literacy policies and programs targeting families and caregivers are the best possible initiatives for raising readers from the very beginning, assuring each child ‘start smart’ and ensures each child seizes his or her potential for future success in education (NAEYC, 2006; NCFL, 2004). USAID (2010, p 67) sums this in a powerful statement: “Young children’s literacy development starts early even before a child steps at the door of a kindergarten classroom… children who do not attain reading skills in the first five years of life are on a lifetime trajectory to limited educational progress and limited economic and developmental opportunity”

In view of the foregoing, the present study argues that literacy solutions in Kenya and particularly in Kakamega County cannot be realized without considering the medley of interrelated factors that shape literacy development, especially in the primary literacy context (Zygouris-Coe, 2007 Tabors, Snow, & Dickinson, 2001). This could be important considering that huge numbers of Kenyan children spend substantial amount of time at home before enrolling in preschool (Marima, 2014; RoK, 2005). At the very least, this study makes a case for a ‘preventive’ or ‘starting right’ rather than ‘remedial’ approach (Burns, Griffin & Snow, 1999). It is hinged on four key assumptions (a) emerge long before formal schooling (b) early childhood year is the period when chances of breaking the downward
spiral of disadvantage are evident and (b) the family environment has a pervasive and life-long impact on children(d) stimulating literacy environment has a potential of reducing risks for reading difficulties. This therefore forms the bedrock upon which the present study’s prerequisite questions were anchored: How do homes exert their influence on children’s early literacy development? What early literacy skills do children bring from home that are precursors to skilled reading and writing development?

1.2 Statement of the Problem

There is some common understanding that literacy is a slow building process with roots in the home and, branches extending to other environments. As matter of fact, there are two instructional contexts that provide developmentally appropriate materials, experiences and social support for children’s early forms of reading and writing to flourish and develop into conventional literacy. These are: the home and school. Undoubtedly, the home is the first setting where language and literacy are typically first encountered and, the most enduring school. Parents are therefore chief supporters, teachers that children have for the longest time and potentially the most important people in the education of children (Wambiri 2007; Bennett, Weigel, & Martin, 2002). These home and school offer implicit and explicit experiences that assure each child a ‘smart start’. Significant, as well, is their role in enabling each child seize his or her potential for future success in reading education. (Poe Burchinal and Roberts, 2004).
Even so, the present early grade literacy analyses in Kenya and specifically in Kakamega County, has sparked debates on the capacity of these two contexts in achieving desired literacy goals. For a decade now, compelling evidence from neuroplasticity, intervention, comparative and longitudinal research is tilting the debate towards the primary literacy context, the home. Specifically, concerns have been raised on whether it is home or school having the most considerable impact in literacy stimulation for the most disadvantaged child (Wambiri 2007; UWEZO, 2012).

As brain analysis, agree that early childhood is a sensitive period when ‘critical windows of opportunities’ are open, ‘a fertile time’ when adequate stimulation must be received or development is completely impaired (UNESCO, 2006), evidence from comparative observational studies affirm that children from stimulating HLE have a head start in literacy and an advantage over peers throughout school (Wade & Moore, 2000). Further, Wambiri (2007) and Bennett, Weigel, & Martin, (2002) observe that the home is the most appropriate context for reducing risks for reading difficulties simply because the striking differences that emerge among children from enriching versus impoverished environments are likely to persist in school and beyond.

With these arguments as a backdrop, it is reasonable to equate early grade literacy phenomenon in Kenya and Kakamega County, to “a leaky-pipe. The 80% of class three children in the county who cannot read a class two story, may be getting into a system which simply reinforces their emerging development trends (Uwezo, 2011; 2012). Probably, these roots are in the primary literacy context and this is what needs to be our greatest
concern. As such, this study challenges popular assumptions that literacy development starts at school, the “context” is the classroom, the “messenger” is the teacher and the “resources” consist of those available in school context. It examines mechanisms through which Home Literacy Environment (HLE) exert its influence on children’s early literacy development before formal instruction. This has not been accorded sufficient research attention in Kenya and specifically in Kakamega County.

1.3.1 Purpose of the Study

The study sought to examine the extent to which Home Literacy Environment exerts influence on early literacy development among 3-4 year olds in Kakamega Central Sub County, Kenya. The secondary concern was to account for pre-literacy skills that children bring into preschool that are precursors to conventional literacy.

1.3.2 Objectives of the Study

Specifically, the study sought to:

i. Determine the extent to which Parental Demographic Characteristics predict development of early literacy abilities of 3-4 year olds in Kakamega Central Sub county Kenya.

ii. Establish the relationship between Parents’ Literacy Beliefs (PLBs) and early literacy abilities of 3-4 year olds in Kakamega Central Sub County Kenya
iii. Examine Parent-Child Literacy Practices (PCLPs) that influence development of early literacy abilities of 3-4 year olds in Kakamega Central Sub County Kenya.

iv. Find out the relationship between Home Literacy Resources (HLRs) and early literacy abilities of 3-4 year olds in Kakamega Central Sub County Kenya.

1.3.3 Research Hypotheses

The study tested the following null hypotheses:

$H_0$: There is no relationship between Parents’ Demographic Characteristics and early literacy abilities of 3-4-year-old children in Kakamega Central Sub-County, Kenya.

$H_0$: There is no relationship between Parents’ Literacy Beliefs (PLBs) and early literacy abilities of 3-4-year-old children in Kakamega Central Sub County Kenya.

$H_0$: Parent Child Literacy Practices (PCLPs) do not influence the development of early literacy abilities of 3-4-year-old children in Kakamega Central Sub County Kenya.

$H_0$: There is no difference in early literacy abilities of 3-4-year-old children enrolled in the urban, peri-urban and rural preschools in Kakamega Central Sub-County, Kenya.
1.4 Significance of the Study

The outcomes of the present study point towards a number of implications but the four that stand out are: research practice, literacy assessment, program development and national literacy policy decisions in the early years. Findings of the present study have a potential of stimulating reexamination of national literacy policy and attention on the importance of the early years in development of academic skills. This may enable inclusion of very young children’s programs in the national literacy system. This study recognizes continuity of literacy development, rather than an all-or-none phenomenon that begins when a child steps in school. This assumption may lead to development of family literacy services to sensitize and support caregivers. By extension, it may enable young children to gain kindergarten literacy readiness skills or emergent literacy behaviors needed to successfully begin their education. This may call for active parental involvement. It means parents may become literate, educated and empowered as their children’s best first educators.

Based on the study results, it may be easy to recognize why some children struggle to read more than others. This may be important in stimulating discourse, enhancing public interest and harnessing efforts of Ministry of Education and other development partners such as UNESCO whose priority agenda has been to promote literacy as a basic human right for all in Sub Saharan Africa. Similarly, this study may provide research and national assessment impetus for early identification and early detection of risk factors for literacy failure before formal instruction. For Civil Society Organizations and researchers, the study is likely to reenergize advocacy attention to family literacy programs and add onto much needed data on family literacy as a forward-looking approach. It is likely to benefit children and
communities as it may go along to stimulate development and design of home or community based initiatives and learning resources centers for the benefit of children by well-wishers and Global EFA champions such as World Bank, World Vision, UNICEF and USAID.

1.5 Delimitations and Limitations of the Study

The subsections below provide the study focus, limitations that emanate from research design and thereafter explain how credibility of the study was improved.

1.5.1 Delimitations for the Study

Research (Pellegrini, 2003) has consistently published a collection of family and child characteristics that predict literacy development in young children. These are: race, ethnicity, gender, learning disability, age, temperament, cognitive and social ability, parenting style and interest among others. However, based on the belief that language and literacy are social aspects of human nature and that what parents believe in, and do or not do with their children, is more important than what parents actually are, the present study confined itself to a selected Parental Demographic Characteristics that influences such practices and Home Literacy Environmental factors that can be altered namely: Parent-Child Literacy Practices (PCLPs) Home Literacy Resources (HLRs) and Parents’ Literacy Beliefs (PLBs) expectations and attitudes about early literacy. Parents or guardians and teachers handling beginners were the key informants. Children (3-4 year olds), with the first preschool experience commonly known as beginners, enrolled in privately owned and public attached preschool centers within the rural peri-urban and urban locations of Kakamega Central Sub County, were sampled for the study. This left out 3-4 year olds who
had enrolled elsewhere or those who were out of the age bracket. This was considered ideal in permitting generalization of research findings to similar populations, especially, across diverse socio-economic backgrounds.

1.5.2 Limitations of the Study

Mixed Methods Research (MMR) design adopted for this study requires much time, resources and expertise and, may sometimes result into unequal evidence when interpreting the results (Pellegrini, 2003). Even so, the current practice of systematically combining the two dominant paradigms, has gained much prominence due to its greater utility and enormous potential for exploring complex and multiplex issues inherent in literacy studies (Bloch, 2006). As such, this approach was carefully adopted. The design of the main research tool (questionnaire) provided enough room for exploring respondents’ views, opinions and suggestions. Interview guides that were designed for teachers and selected parents also sought in-depth clarification of self-reported sentiments.

Secondly, the sample size for this study was relatively small just to ensure it was practically possible for it to be carried out. It needed a detailed description of multiple indicators of the independent and dependent variables, thus, increasing the sample size was not possible. However, its generalizability was improved by adding more components in the assessment tools. It implies that caution is warranted in attempting to generalize these findings to a broader population. This study explicitly impressed on respondents’ genuine, thoughtful and honest self-reports but took into account problems inherent in such data. This was minimized through validation and triangulation. This study borrowed heavily from reports
documented outside Kenya (SACMEQ, 2010; NICHD, 2000; PIRLS, 2001 Ngorosho, 2010;2011), due to limited availability of local researches devoted to Home Literacy Environment (HLE) and early literacy development. However, an attempt to refer to national literacy reports (Uwezo, 2012; KNEC 2010) and researches devoted to parental involvement (Wambiri 2007; Kaunda 2013; Kwizizira, 2000; Van Wyk & Lemmer, 2009) in reading development and school work in sub-Saharan Africa was made. This improved its chances of generalization.

1.6 Basic Assumptions of the Study

For this study, literacy was regarded as the single best predictor of future cognitive skills and a fundamental skill for success in school. First, the study recognized that literacy deficits can significantly disadvantage children’s ability to access the national curriculum since almost every educational skill presupposes the use of language (NCCA, 2011). This is to say, early literacy skills are cornerstones needed for the development of later academic skills required in primary grade school years and in higher levels of schooling. Importantly, these skills are formed before formal instruction begins, that is, in the early childhood years.

This study equates early grade literacy failure phenomenon in Kenya to “a leaky-pipe”, demonstrating how a poor start in literacy can cumulatively lead to early grade reading failure. It premises on the understanding that success or failure in reading is influenced highly by Home Literacy Environment and specifically, a selected demographic characteristic of parents, literacy beliefs, practices and literacy resources as major components of HLE (Dodici, Draper & Peterson, 2003). It equally believes that: (a) home
literacy environments vary along socio economic indicators (b) each home has some forms of home literacy interactions and (c) primary caregivers are not only aware of their critical role as prime educators but are also in a position to nurture these skills before formal instructions.

1.7 Theoretical and Conceptual Framework of the Study

This sub-section explores early reading theories that explain the nexus between Early Literacy Development and Home Literacy Environment. It also contains a conceptual framework illustrating the possibility of interaction between selected Home Literacy Environment variables and how they influence young children’s early literacy development.

1.7.1 Theoretical Framework

Language and literacy development is a complex process. There is no ‘silver bullet’ theory sufficient in explaining literacy development process. For this reason, this study adopted an eclectic theoretical approach. It was guided by two theories namely: Bio-Ecological Theory by Bronfenbrenner (1998) and Emergent Literacy Theory proposed by Clay, (1966). These theories provided greater synergy. As discussed in the subsequent subsections, they contain frameworks on which Home Literacy Environment was conceptualized as a meaningful context with embed opportunities for children to learn and develop through observation and apprenticeship. Whereas, the Bio-Ecological Theory (BET) presents four contextual variables in the home that may facilitate or impede early literacy development, the Emergent Literacy Theory(ELT) explains literacy development as a slow building process that develops early in life, continues throughout life and is inseparable from the social context. It
also makes a case for concurrent development of literacy aspects (for instance reading, writing and oral language).

1.7.1.1 The Bio-ecological Theory

Bronfenbrenner’s (1998) formalization of the bio-ecological approach underscores that an individual’s development is nurtured and situated in a set of nested, overlapping, but isomorphic systems. In Bronfenbrenner’s explanation of nurturance in the developmental environment, he discusses network influences of these contexts and sees the appropriate object of study in early literacy development as child-in context rather than the child as an individual. He makes two assertions relevant to the present study about the conditions that must occur or be present within homes for a child to experience language and literacy development.

Bronfenbrenner’s first argument rests on the notion of a primary context. Here, a child observes and participates in activities of others, who possess knowledge and skills that are not yet obtained by the child. This is relevant to what the present study espouses, that is: Parent-Child Literacy Practices, Parents’ Literacy Beliefs as well as habits and behaviors that children observe experience and enjoy under the tutelage of parents. In the present study, the primary context (home) is hypothesized to provide opportunities that enrich children’s literacy experiences.
Hypothetically, when parents espouse positive beliefs, behaviors and make efforts to engage regularly in joint literacy practices, children are apt to demonstrate pre-literacy abilities that lay solid foundation for conventional literacy. This presupposition, is well supported by a robust body of empirical research which establishes that parents’ who strongly value being involved in their children’s learning or express positive beliefs about literacy and reading, engage their children in literacy activities early enough before preschool entry, have children with superior early literacy skills. Such skills anchor the strongest foundation for development of conventional literacy in school and beyond (Goodson & Layzer, 2009).

The second proposition focuses on secondary developmental context in which the child is presented with opportunity, resources, and encouragement to engage in activities such as joint reading, book-talk, story-telling, shared writing, library visits and joint conversation. A print-rich and interactive environment of this nature, not only presents a warm inviting atmosphere, but also permits a child to manipulate resources on their own and with more capable adults. Such asset based activities are hypothesized to permit more “joint attention, adult modeling of new verbal forms, conversation about various elements in literacy and contingent feedback that are meaningful in literacy development (Bronfenbrenner, 1998).

On the same breath, the ecological theory places heavy emphasis on the role of proximal processes (Bronfenbrenner, 1998). Proximal processes are described as increasingly more complex reciprocal and continuing interactions that occur within a literacy environment. Bronfenbrenner (1979) refers to primary and secondary developmental contexts as the microsystem where children have immediate contact with significant others such as their
parents, caregivers and siblings, who provide them with literacy experiences. Elsewhere, scholars expand the microsystem to include places a child spends time such as libraries, play spaces etc. As summarized by National Reading Panel, (2001), such opportunities offered by the environment as well as the roles and relationships pursued in such contexts, heavily influence development. The proximal processes encompass practices such as playing with books and engaging in joint storybook reading with a child.

Additionally, the ecological theory explains features associated with this process for a child to realize meaningful gains. These features are (i) the person must engage in activity for development to occur, (ii) the activity must take place on a regular basis over an extended period of time to be effective, (iii) the activities must take place long enough for them to become more complex, (iv) the proximal processes must include reciprocity and (v) proximal processes can include interactions with objects (for example books) and symbols. The moderating factors such as characteristics of the person, environment and time have a potential to create changes in the content, timing and effectiveness of proximal processes. In the present study, types of literacy activities that a child and parents engage in, the frequency of engagement in literacy activities, as well as presence of resources and objects for a child’s literacy interaction were focused on rather that quality, timing and effectiveness. Quality of interaction would have been reliable if the study adopted ethnographic related designs encompassing participant observation in situ.

The other key tenet of this theory is Bronfenbrenner’s view of literacy as an activity for all humans. Essentially, literacy is a social practice located in the interaction between people
and must be experienced and experimented with throughout a child’s daily life. This is to say, the social and physical environment influence what activity settings are likely to be possible, the task demands, the scripts for conduct, the purposes or motives of the participants and the cultural meaning of the interactions. These settings offer young children opportunities to observe and participate in the purposes, styles of interaction and activities of literacy that are so crucial in shaping their literacy experiences. Seemingly then, differences in these settings (for example literacy rich or literacy poor) is likely to contribute to the considerable variations in patterns of early literacy development. Precisely, what children learn will vary according to the activity settings, local practices, values and the opportunities they are provided with. On this premise, the present study which sought to find out how 3-4 year olds’ home environment in Kakamega Central Sub County vary in terms of literacy beliefs of parents, home literacy resources and practices.

Bronfenbrenner acknowledges a child’s home or family environment as a potent force in shaping his/her literacy development. Children’s interactions with people, objects and symbols affect their understanding, capabilities and dispositions towards language and literacy learning (Bronfenbrenner, 1995). Fundamentally, this theory recognizes the family as both an interactional (for example routines, rituals) and ideological system (symbolically articulated belief) with corresponding behaviors (for example shared reading) that transmit belief systems (proximal processes). Taken together, these function as antecedents to a child’s literacy outcome.
In this sense, ecological theory deviates sharply from technical view of literacy development which equates language and literacy skills as a series of technical skills (Walsh, 1989; Gesell, 1940). Rather, it explains literacy development from a dynamic, multilevel, and interactive framework. This foregrounds the importance of children having opportunities to engage with primary caregivers in asset based activities. The strong argument espoused by this theory is that literacy development is embedded in social interactions, social environment and social discourses. These symbols, objects, places, people, activities offer opportunities for children to learn or acquire literacy by interacting with others in society, along with the people that surround them on a regular basis (Lankshear & Knoebel, 2003). Underpinning this holistic framework is also the notion that motivation, engagement as well as symbols within a child’s environment that is, parent-child literacy practices, parents’ literacy beliefs and home literary resources operate either to facilitate or impede early literacy skill development as a proxy for proximal processes.

This theory underscores literacy development as a process inseparable from social contexts. It acknowledges the home as the first instructional environment in which the child thrives and engages in day to day interactions with significant others. It elaborately accounts for literacy as a social contextualized practice embedded in social interactions, social environment and social discourses. For the present study this theory stands at the strongest vantage point in investigating the contributions of HLE on the development of early literacy skills of 3–4 years. It not only focuses on the context but also the proximal processes as engines for literacy development.
That said, there are criticisms leveled against this theory. First, it fails to adequately explain the link between pre-reading skills of young children and conventional literacy development making it inadequate in demonstrating how precursor skills form a springboard for acquisition of reading abilities in school and beyond. In this sense, it fails to explain literacy acquisition as a dynamic and slow building process originating early in the child’s life. Besides, it does not explain the interconnectedness between language, reading and writing (Bowman, Donovan & Burns 2000). Based on the limitations discussed above, it was complemented by the Emergent Literacy Theory which is discussed in the following subsection.

1.7.1.2 The Emergent Literacy Theory

The power of Clay’s (1966) Emergent Literacy Model lies in her description of literacy development from to a developmental perspective rather than a readiness perspective. What immediately strikes is Clay’s extensive four- fold explanation of this process. Literacy to Clay, develops in a continuum, comprises of interrelated skills, involves complex processing and is a socially contextualized practice. Clay (2001) rejects the concept of ‘getting ready to do it’ or ‘neural ripening’. This is a popular notion that children are preprogrammed to begin acquiring literacy skills at a specific age. Rather, she postulates that children are already actively engaged in literacy practice, in constructing written language system even before they are formally taught to read.

Therefore, one among other key tenets of Clays theory is that literacy development starts early in life and continues throughout life. It thus recognizes changes in literacy behaviors of
young children, hinting that a child at any given age possesses certain literacy skills (knowledge about language, reading, and writing) although the skills are not fully developed. She criticizes the previous view (Reading Readiness Model) proposed by Walsh (1989) and Gesell (1940), which saw entry into formal schooling as the critical starting point for the acquisition of reading abilities. Clay puts this rightly in a statement:

Literacy learning does not need to wait until children have mastered some set of readiness skills or developed a particular level of social-emotional readiness, or are at a certain age. Rather, children begin by building a foundation of literacy abilities which influences later acquisition of formal reading skills (p.79)

Clay’s idea of ‘emergent literacy’ denotes that development of literacy skills is a continuous process that begins when a child is very young, as opposed to simply when formal schooling begins in the elementary school years (Lonigan et al 2000; Whitehurst & Lonigan, 1998). Consequently, she explains that children’s literacy-related abilities are developing long before children are exposed to formal instruction (Whitehurst & Lonigan, 1998) and that earlier precursors of literacy skills are just as important to later reading, writing, and language achievement (Whitehurst & Lonigan, 1998). Her perspective recognizes that literacy development begins at a very young age in the home environment. She describes the early childhood period as an “emergent phase” of literacy development while early literacy skills to her are reading and writing concepts, behaviors, and dispositions that precede and develop into conventional reading and writing. This signals Clay’s belief that in a literate society, all preschool children are in the process of becoming literate because they interact with print in a variety of ways in their home and school environments. She ascribes to the notion that a child is a constructor of his or her own literacy. This is quite relevant to the
present study based on the fact that one of its major aims was to identify foundational skills and abilities that children acquire just as they gain entry into the formal school system in Kakamega County.

Clay equally embraces a unique dynamic relationship among reading, writing, oral language, and listening skills as earlier pointed out by Sulzby and Teale (1991). She explains the current conception that reading and writing are interrelated, wholly interconnected aspects of literacy development that develop together in everyday activities as children come to realize that written language makes sense. This implies that there are broad range of knowledge, dispositions and strategies involved in young children’s becoming literate. She broadens the focus on literacy and states:

Decoding should not be the only measure of beginning reading. Rather, knowledge about directionality, reading print in context, the ability to distinguish print from other graphic forms, understanding the function of print and that the print has meaning, pretend or invented reading and writing, shared reading and writing, all constitute aspects of early literacy development of children that need to be considered as well (p. 34)

Basing on the relative importance placed on both reading and writing related skills, this study investigated abilities of the participating children in the other domains of early literacy such as print motivation and early writing development.

Clay elaborately examined the process of literacy development and affirmed that literacy learning involves complex processing. In so doing, she broadly refers to and builds on foundational base of pioneers, particularly, those who theorized that literacy involves complex processing (Dewey, 1987), children’s understanding arise out of self-directed actions upon the physical environment (Piaget, 1896) and involves children as active
cognitive constructors of meaning (Brunner, 1967). For Clay, early readers initially begin to use simple working systems in reading and writing. Such simple slow literacy processing systems change overtime to become complex fast and interactive processing system which eventually leads to skilled reading. It thus denotes that literacy development is a slow building process involving exchanges between the child and objects or people in the surrounding environment.

Clay’s model did not stop at processes of literacy development but steps further to recognize influences that shape and mediate literacy activities. Literacy contexts are crucial to her just like the former theory, the Bronfenbrenner’s ecological model (1999). In particular, home and family contexts are not ignored in Clay’s model (1966) but considered as social setting for literacy learning Clay argues for meaningfulness and purposefulness in literacy, that is, it must develop in real-life settings based on real-life activities. It means that a plethora of informal literacy interactions and staged opportunities for exploration of literacy materials that go on at home under the tutelage of primary caregivers count as meaningful literacy to Clay. This tenet concurs with Vygotsky’s (1978) socio-cultural view of literacy development. For Vygotsky, literacy is a social contextualized practice, not merely a technical skill, first encountered in formal education. Embodied in Vygotsky’s, belief is that literacy development can be determined as it occurs naturally in social life. This further echoes terms like scaffolding and Zone of Proximal Development (ZPD) that are common in literary discourses. Children learn written language through active engagement with their world. They interact socially with adults in writing and reading situations; they explore print on their own thus profit from modeling of literacy by adults and older children.
In sum, Clay’s and Bronfenbrenner’s models are consistent in making a case for positive interactions between young children and adults as well as the critical role of literacy-rich experiences. They both pose strong arguments that ELSs develop in real life settings through positive interactions with literacy symbols, materials and people. However, Clay steps ahead in foregrounding literacy development as an interrelated, continuous developmental process and a more natural unfolding of skills that begin in the first years of life. She believes that language, reading and writing are intimately linked. As such from her arguments, we can see the connection (and meaning) between an infant mouthing a book, the book handling behavior of a two-year-old, and the page turning of a five-year-old. Most importantly, for the two theorists, caregivers (for example parents) remain prime educators, critical links, valuable resources, meaning-makers and ‘active ingredients’ of environmental influence during early childhood. As such literacy is an inseparable concept from social contexts, with the home as the first instructional environment and a social context in which the child thrives. Home literacy activities are viewed as funds of knowledge and a focal source for very young children’s early learning that should not be neglected, but legitimised and tapped for meaningful progress. Adoption of these two theories provided adequate understanding of the link between HLE and ELSs. The conceptual framework presented in the succeeding subsection equally depicts the concepts and ideas espoused by the two theories.
1.7.2 Conceptual Framework of the Study

**Independent Variables**

- Parental Demographic characteristics
  - Age
  - Gender
  - Education Level
  - Income level

- Parent Literacy Beliefs
  - Value of early literacy
  - Link to reading
  - Role of HLE practices, resources and caregivers

- Parent-Child Literacy Practices
  - Shared Reading
  - Reading to children
  - Dialogic Book talk/
  - Story telling
  - Joint conversation
  - Shared writing

- Home Literacy Resources
  - Books/children readers
  - Labeled tins
  - Printed paper bags/tins
  - Printed clothes/
    charts/Newspapers
  - Calendars/Magazines
  - Visual Aids
  - Printed toys

**Dependent Variable**

**Intervening Variables**

- Child Factors
  - Intelligence Quotient
  - Gender
  - Learning Disability

- Other Parental Demographic Characteristics
  - Parenting Style
  - Parents Interest
  - Ethnicity
  - Race

**EARLY LITERACY ABILITIES**

- Basic concepts about books,
  - Alphabetic knowledge and letter-sound relationships
  - Expanded vocabulary/stories comprehension

*Figure 1: Conceptualizing the Relationship between Home Literacy Environment and Early Literacy Ability*
The diagrammatic representation above hints on the possibility of influence between the variables of study. The study explores relationship between a selected parental demographic characteristics and Home Literacy Environment namely, Parent Child Home Literacy Activities, Parent Literacy Beliefs and the Home Literacy Resources on early literacy developmental outcomes of 3-4-year-old. These are presumed to be more important predictors of early literacy development than others (for example within child factors) (Flouri & Buchanan, 2004). A ‘literacy-rich home environment’ is presumed to be characterized by positive parents’ literacy beliefs system, a variety of developmentally appropriate literacy resources and practices. Such opportunities are expected to provide a stream of benefits that last a life time. They permit children to explore oral and written discourses, build language competencies, inculcate in children motivations and habits that would make children lifelong learners.

The experiences are expected to be mediated by a child’s IQ, sociability, temperament, age, gender, and learning disability and other parental or/and family background factors (parenting style and interest, ethnicity/ race and skills among others). These variables were briefly highlighted in the literature and influence noted but, was not given much focus. More focus was provided to parents’ age, gender, educational qualification, level of income, residential location family size, given the fact that studies world over identify them as key explanatory variables for early literacy development. The outcome variable (Early Literacy Ability) was determined in terms of a child’s level of vocabulary (rapid automatized naming) phonological knowledge (sound discrimination) alphabetical awareness (letter recognition), print or book knowledge, print motivation and early writing skills (for example scribbling and copying).
1.8. Operational Definitions of Terms

The terms used in the present study are as explained below:

**Book Handling Behaviors** is used in this study to refer to attempts related to a child’s physical manipulation or handling of books, such as turning pages.

**Concepts (Conventions) about Print** refer to knowledge of print conventions (for example left-right, front-back) and concepts (for example book cover, text).

**Conventional Literacy Skills** refers to more mature skills such as decoding, oral reading fluency; reading comprehension, writing and spelling that are the focus of instruction in elementary and secondary schools.

**Dialogic Book Talk** is described in this study as a group activity in which parents and children together develop shared understanding of a book through talk. A parent asks open-ended questions about the story or the pictures and prompts a child to talk about the pictures in the book. Parents on the other hand, provide feedback to the child in the form of repetitions and expansions.

**Decoding** refers to the ability to apply knowledge of letter-sound relationships, including knowledge of letter patterns to correctly pronounce written words.

**Early Literacy** (EL) also refers to as emergent literacy in the study. It encompasses reading and writing concepts, skills, attitudes, behaviors and dispositions that precede and develop
into conventional reading and writing. Simply, everything a child knows about reading and writing prior to conventional reading or writing.

**Early Literacy Skills (ELSs)** refers to verbal and nonverbal pre-literacy skills, precursors, predictive, foundational or emergent literacy skills of preschool and kindergarten children (all terms that were used interchangeably in present study) necessary for the development of reading and writing such as print concepts, alphabet principle, phonological processing and oral language.

**English Language Learners (ELLs)** refers to children who are unable to communicate fluently or learn effectively in English. They come from non-English-speaking homes and backgrounds, and who typically require specialized or modified instruction in both English language and in their academic courses.

**Environmental Print** refers to the print of everyday life, such as the letters, numbers, shapes and colors found in logos and signs for products and stores.

**Family Literacy** has been used in this study (a) to describe the manner in which parents, children, and extended family members use literacy at home and in their community, (b) to describe a set of interventions related to literacy development of young children, and (c) to refer to a set of programs designed for parents with early school-age children to improve children’s school readiness and success, while simultaneously supporting literacy.
development of parents (iv) refers to interactive literacy activities between parents and their children.

**Home Literacy Environment (HLE)** is characterized by the variety of resources, experiences, opportunities or materials as well as specific interactions with such materials that care-givers provide and children encounter before formal schooling. Parents’ skills, capacities and dispositions which determine the provision of these resources and opportunities have also been included in this dimension.

**Interactive Literacy** refers to a situation where adults and children rely on the give and take of conversation with each other and on a shared context to obtain clues for understanding the message and the meaning of any new words and cognitive skill.

**Literacy** refers to a broad set of competencies involving the ability to use and comprehend printed information.

**Literacy-Poor Environment** refers to an environment in which 3-4-year-old children has little or no literacy experiences, opportunities and materials.

**Literacy-Rich Experiences** refers to both formal and informal opportunities as well as environmental arrangements, material availability and experiences that children encounter daily in their homes and community that contribute to early literacy development.

**Parent Literacy Beliefs** refers to dispositions, values, ideas or knowledge that parents consider to be factual or true about literacy in general and how a child becomes literate.
**Picture Comprehension** refers to behaviors that show a child understands pictures and events in a book, such as imitating an action seen in a picture or talking about the events in a story.

**Reading Behavior** refers to behavior that include children’s verbal interactions with books and their increasing understanding of print in books, such as babbling, imitation of reading or running fingers along printed words.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

Chapter two presents key research issues, controversies and gaps that emanate from a very broad literature search from published and unpublished scientific data sources. It does not only discuss the current state of research but also conceptualizes in depth, key variables of the study such as: Early Literacy Development and Home Literacy Environment. The first section of this chapter provides an explanation of the concept of Early Literacy. It goes ahead to present other themes in the following order (a) Link between early literacy skills and children’s later reading achievement, (b) Link between reading development and school success, (c) Early childhood years as prime time for early literacy development and (d) Domain elements of early literacy development. This is then followed by an empirical analysis of selected Parental Demographic Characteristics identified as key predictors of literacy development and Home Literacy Environment variables. An explanation on how each variable influences early literacy development of 3-4 year olds, is provided in the fourth section. The discussion specifically dwells on a selected Parental Demographic Characteristics, Parent Literacy Beliefs (PLBs), Parent Child Literacy Practices (PCLPs) and Home Literacy/Educational Resources (HLRs) as emerging predictors of literacy development. The fifth and last section presents literature gaps from scientific studies and sums up with review summary.
2.1 The Concept of Early Literacy

There are wide-ranging expectations or rather essential school readiness skills that are required of a child to successfully begin schooling. For instance, young children at preschool entry are expected to demonstrate some level of mastery of cognitive, social, emotional and physical competencies as well as non-cognitive valuable dispositions, such as motivation to read and persist in learning. Two polarized literacy development perspectives namely; the ‘starting smart model’ (Clay, 1966; Whitehurst & Lonigan, 1998) and the ‘readiness model’ coined in the 1960s and 70s (Walsh, 1989; Gesell, 1940), posit that literacy development is one valuable preschool readiness skill that influences learning over time, and a necessary skill at preschool entry. Early Literacy Skills (ELSs) also referred in this study as ‘Emergent Literacy Skills’ of young children, are simply the building blocks for future reading success. These are the competences that put children on the path to reading success, opening their flood gates for future learning (Yarden, Rowe & MacGillivray, 2011; Whitehurst & Lonigan, 2001; Ghoting, 2006; Shirley-Kirkland, 2002; Arnold, 2003). These skills show remarkable stability over time and are predictive of widening literacy gaps to come especially for children from different economic, racial and linguistic backgrounds (Dickinson & Sprague, 2001).

Emergent literacy entails children’s developing a growing understanding of print and language as a foundation for reading and writing. Whitehurst and Lonigan (1998, p 83) refer to them as ‘…the skills, knowledge and attitudes that are presumed to be developmental precursors to conventional forms of reading and writing’. On one hand, NCCA (2009a, p,
91) describes these skills as ‘reading and writing behaviors that precede and develop into conventional literacy’.

A synthesis of the most rigorous scientific analyses on the development of ELSs in children from birth to age 5 (National Institute for Literacy, 2009; NELP, 2002), recognizes early literacy as skills, knowledge and attitudes which are presumably, the forerunners, precursors, predictive, foundational literacy skills of preschool and kindergarten children. Snow and Uccelli (2009) envision many of these early skills as foundational abilities or rudimentary precursors for later, more sophisticated academic language skills. The above description not only distinguishes these skills from more conventional literacy skills (Whitehurst & Lonigan, 2001; Neuman & Dickinson, 2002) but also denotes that literacy acquisition is a dynamic process originating early in a child’s life (National Research Council, 1998: 2000).

Elsewhere, authors describe ELSs as knowledge, attitudes and behavior that children acquire prior to formal schooling or before children display conventional ways of reading and writing (Storch & Whitehurst 2002; Whitehurst & Lonigan, 2001:1998; Sulzby & Teale, 1991), while other scholars (Senechal & LeFreve, 2002; Shirley-Kirkland, 2002; Ghoting, 2006; Arnold, 2003) refer to them as what children know about reading and writing before they actually can learn to read and write. Florida Institute of Education, (2002) defines them as deemed requisite to formal literacy acquisition. Such skills include: understanding of basic concepts about books, knowledge of the alphabet principle and letter-sound relationships, expanding vocabulary and language, understanding concepts of print and
comprehending stories. Importantly, they are cultivated during the preschool years, from age three to five and can be enhanced through parent involvement in rich literacy contexts (Ghoting, 2006 & Arnold, 2003).

Two scholars Whitehurst and Lonigan, (2001), identify two main overlapping categories of ELSs namely: code-related skills and phonological awareness. Overtime, scholars (see Storch & Whitehurst 2002; Sénéchal & LeFevre, 2002) have expanded the two dichotomies into six pre-reading skills, namely: (a) Print Motivation (PM) referring to appreciation that books and reading are fun, (b) vocabulary which concerns knowing the names of things and (c) Print Awareness (PA) which entails recognition of print and an understanding of how books work. According to Sénéchal and LeFevre, (2002), the other important ELS is Letter Knowledge (LK). This involves the understanding that each letter has its own name and sounds while narrative skills is the ability to tell stories and describe things. Finally, Phonological Awareness (PA), which is linked to recognition of smaller sounds that make up words is discussed separately. Interestingly in this dichotomy, oral language and phonological awareness (ability to distinguish among sounds within auditory language) are still found to play bigger roles in later literacy achievement (Storch & Whitehurst 2002).

According to Bowman et al (2000), early literacy (reading and writing) development begins in the first three years of life. It is closely linked to a child’s earliest experiences with books and stories, follows rather stable trajectories over time and solidifies before children enter formal school. From this argument we derive a relatively new understanding about the critical role that early experiences and literacy rich home play in shaping brain development.
For the three authors the amount of cognitive enrichment, verbal stimulation and book reading that children are exposed to at an early age is predictive of later literacy skills (Bowman et al 2000). Research equally acknowledges the of value of ‘literacy objects’ such as books paper and crayons and, interaction around these resources with the adults as building blocks for language reading and writing development. The words of Bowman et al (2000), on a project that was meant to raise confident readers, put this into perspective:

Reading begins at birth. Parents should begin reading aloud to children at birth. It feeds the child’s hungry brain with data for language development, speaking, and early word reading. It’s a wonderful way to bond and leads to cognitive, social, and emotional development. As the newborn hears sounds and discriminates the oral language, he or she begins to build the foundation of written language and reading and writing. Indeed, the window into the developing brain allows us to see that stimulation from the environment changes the very physiology of the brain with implications for social, emotional, and cognitive growth (p.93).

A lot more is in support of an interactive and experiential process of literacy. Strickland and Riley-Ayers, (2006) throw their weight behind this argument in a statement:

We now know that children gain significant knowledge of language, reading and writing long before they enter school. Children learn to talk, read and write through such social literacy experiences as adults or older children interacting with them using books and other literacy materials, including magazines, markers, and paper (p. 35).

The foregoing arguments support the idea that ELSs (reading and writing) are intimately interlinked, continue to develop from the first years of life within the real life settings and facilitated by positive interactions with literacy materials and other people. Shickedanz (2003) who expressed that reading is much more than ABC argues this from an evolutionary perspective. She comes out with categories of early literacy behaviors and provides meaning to valuable book behaviors of very young children as well as how joint literacy practices
enhance the progress children make along the path to literacy (Paratore, Cassano & Schickedanz, 2011).

ELSs, are skills essential for conventional literacy development and must be the focus of early language and literacy programs. By shifting focus on the importance of the first years of life, scholars (Paratore et al., 2011), have consistently given new meaning to interactions that young children make with books and stories, implying that literacy development is a dynamic developmental process. We can therefore recognize that there are connections and meaning between an infant mouthing a book, the book handling behavior of a two-year-old, and the page turning of a five-year-old. Embodied in this argument is the Emergent Literacy principle by Clay, (1966) which underscores a more natural unfolding of skills through the enjoyment of books as well as the importance of positive interactions between young children and adults as critical components in early literacy development.

EL abilities that are influenced by the earliest experiences beginning from a child’s infancy (Catts, 2002; Catts & Kamhi, 2005; Nathan et al., 2004), do not only develop from direct instruction that begins when children start school, but are enriched during the early years. This is possible in language enriched communication environment with printed materials (Lonigan, 2004; Arzubiaga, Rueda & Lilia, 2002) and opportunities for informal instructional encounters with literacy materials (Sénéchal & LeFreve, 2002). On this understanding, the present study sought to account for early literacy abilities of 3-4 year olds as a way of predicting their path to reading development. This was based on the view that with such a determination, then, it would be possible to design intervention programs for
helping young children to progress towards successful literacy learning if they are found to be lacking these fundamental skills.

2.2 Early Literacy Skills, Reading Development and School Success

Skilled literacy (reading and writing) is a cognitive framework which begins with understanding of spoken words, decoding of written words and deep understanding of text. Precisely, it encompasses both the ability to decode (translate sound to print) and understand what is read at the level of words, simple phrases and sentences which come with lots of experiences (Rayner et al., 2001). This means that, no two children will acquire reading skills at exactly the same rate due to varied literacy experiences they may encounter, but all are able to reach this stage in the early grades. The consequence is for lack of exposure to varied literacy experiences is somewhat clear Failing to read with understanding by grade 2 should be considered a ‘warning light’ for action to be taken to correct this by grade (Annie, 2010).

A skilled reader is an individual who has attained full language literacy. S/he demonstrates ability to approach printed materials with critical analysis, inference and synthesis, write with accuracy and coherence at the same time use information and insights from text as the basis for informed decisions and creative thought (UNESCO, 2009). More importantly, skilled reading depends highly on foundational skills and is the heart to all literacy. It has clear and consistently strong relationship with ELSs such as ability to decode and comprehend text, to write and to spell (NELP, 2002). This is captured explicitly in a summary by McClelland, Kessenich & Morrison, (2003, p 54):
Children need to learn mainstay concepts and skills of written language from which more complex and elaborated understandings and motivations arise, such as grasp of the alphabetic principle, recognition of basic text structures, sense of genre, and a strong desire to know. They need to learn phonological awareness, alphabet letter knowledge, the functions of written language, a sense of meaning making from texts, vocabulary, rudimentary print knowledge (e.g developmental spelling), and the sheer persistence to investigate print as a meaning-making tool.

As such the present study’s effort is to determine the path children take towards reading development. It examined pre-reading and pre-writing skills of 3-4-year-old children in Kakamega Central Sub County which are important in laying foundation for conventional literacy in school and beyond.

2.2.1 Early Literacy Skills and Reading Development

Reading is a staged process that represents a foundational educational milestone. It is acquired in phases and all learners of alphabet-based languages pass through the same stage (Clay, 1979). In the first phase, children build emergent literacy skills by developing letter-sound knowledge, word knowledge and simple decoding of letters into sounds. These skills propel them to develop conventional literacy and learn concepts in other academic areas. As such, longitudinal analysis has published positive trajectory of children’s reading predicted by ELSs. Results confirm that when children fail to achieve ELSs, reading difficulties are likely to persist throughout the primary grades and beyond (Annie, 2010). In other words, between birth and age five early, all literacy competencies facilitate the development of conceptual, affective and attention capacities which then feed upon themselves and gain momentum during the preschool years (Cramer & Castle, 1994).
One study which explored this relationship is Whitehurst and Lonigan’s study of 1998. Results of this study showed that children with more of ELSs profit more from reading instructions read sooner and better than do children with less of these skills. Results of NELP’s (2008) scientific meta-analysis of over 500 peer reviewed articles noted a similar trend. Their goal of this analysis was to identify ELSs that were precursors to later academic success, as well as, how parents and home contributed to the development of such skills. The age group this panel referred to comprised of children less than 5 years of age. The skills they found to be positive contributors to school readiness were early literacy abilities, such as alphabet and print knowledge (Annie 2010; Speece, Mills, Ritchey & Hillman, 2003).

Separately, Wambiri, (2007), Arasa, (2004) and Annie, (2010) revealed that children most at risk of developing reading problems are those who begin school with low oral skills, less phonemic awareness and letter knowledge and less familiarity with literacy tasks and underlying purposes. A report, NICHHD (2000, p39) aptly validated this position by underlining a specific dimension vocabulary, stating: “…if children enter school with limited knowledge of the meanings of words, it makes it more difficult for them to learn new vocabulary words … as they get older, and their limited vocabularies begin to interfere more and more with their ability to understand what they are reading”.

Similarly, larger corpuses of research (for example observational, ethnographic studies, experimental, quasi-experimental) underscore this link (Annie, 2010). In particular, Hart and Risley’s (1995) study confirmed that vocabulary growth rate at age 3, highly correlate with receptive vocabulary, listening, speaking, semantics and syntax scores at ages 9–10.
Amplifying this is Catts, Fey, Zhang, and Tomblin (2001) reiterating that children who exhibit difficulty with vocabulary during their preschool years, are much more likely to experience later reading difficulties than their peers, who acquire oral language according to expected milestones (Annie, 2010).

Elsewhere, Scarborough and colleagues’ chain of studies (1994: 1998: 2001) involving path analyses observed that young children who demonstrate oral language proficiency and competence in print processing, do better in learning to read in first, second, and third grades. Going by these analyses, it is reasonable to conclude that ELSs are likely to be sustained throughout the primary-school years and is an important basis for successful early performance in reading and overall school success. The essence of the present study was thus to estimate ELSs of 3-4-year-old children in Kakamega County and use this not only to project children reading ability beyond preschool but also as basis of advocating for intervention before they begin their formal education.

This link is aptly explained by longitudinal investigations spanning preschool through to grade three. Two of such publications are Lonigan, Burgess and Antony, (2000) and Storch and Whitehurst, (2002), who attempted to determine continuity and stability between levels of reading-related skills displayed by preschool children and levels of reading skills displayed by these children when they are in elementary school. It was noted that most children who enter kindergarten with well-developed print knowledge, phonological processing skills and oral language skills are better prepared to ‘crack’ the alphabetic code and become skilled readers when provided with effective reading instruction (Storch &
Seemingly, this supports the belief that developmental antecedents underlying acquisition of reading are found early and prior to the onset of formal schooling but persist in school and beyond. As such, the present study’s argument is that an examination of early literacy abilities before formal school entry will permit identification of those at risk of reading failure and timely intervention for later school success.

Examining this link using larger samples, ranging from age 3 years through third or fourth grades, spanning geographically, ethnically, and economically diverse population are scholars such as Lonigan and colleagues (2000); Hart and Risley, (1995) and Entwisle and Alexander, (1993). Their findings concurred with those of Annie, (2010). Specifically, Entwisle and Alexander (1993) observed that by the age of five, children differed markedly in their success in reading and that these early differences reverberate throughout a child’s schooling, limiting or amplifying learning success (McGee, 2004). These studies not only present a case for early literacy intervention before formal instruction, but also caution that children who enter kindergarten ill-prepared to learn to read have less chance to succeed in reading. It is therefore compelling to identify early literacy abilities and skills in order to predict children’s reading trajectory and school success.

2.2.2 Predictors of Early Literacy Development and Reading Ability

It is crucial for all children to begin school equipped with skills that contribute to a successful academic trajectory. For literacy and language scholars, the role of pre-reading skills in the early years and their link with reading ability cannot be overstated. One study
that aptly recognized this link was the landmark study by Hart and Risley (1995). Their findings indicated that the rate of vocabulary growth at age 3 is highly correlated with receptive vocabulary, listening, speaking, semantics, and syntax scores at ages 9–10.

Elsewhere, expansive literature reveals that children who exhibit difficulty with vocabulary and grammatical skills during their preschool years are much more likely to experience later reading difficulties than children who acquire oral language according to expected milestones (Catts, Fey, Zhang & Tomblin 2001; Scarborough 2001). This concurs with sentiments of Tabors and colleagues (Dickinson & Tabors 2001; Tabors & Snow 2001) arguing that for all children including English Language Learners (ELLs), oral language plays a substantial role in early learning and perhaps more crucial for children’s literacy development from Grade 2. In consistence, rigorous observational studies, ethnographic studies, as well as research using experimental and quasi-experimental designs, have published compelling evidence demonstrating positive relationship between oral language development and reading achievement.

To start with, the NELP (2008) meta-analysis of over 500 peer reviewed articles devoted to children of less than 5 years of age, aiming to identify precursors to emergent literacy skills and later reading success as well as the role of homes in development of ELSs revealed this connection. From this synthesis, two important predictors of ELS and positive contributors to school readiness were alphabet and print knowledge (NELP, 2008; Speece, Mills, Ritchey & Hillman, 2003). Equally, in 2008, NELP reviewed 23 studies with an aim of exploring the impact of family literacy intervention programs. Once again, this review demonstrated that
families have significant effects that positively impacted on children’s oral language skills and general cognitive abilities. Even so, for all the reviews (NELP, 2008), African children and their families were not part of the sample. This provided the basis for the present study which aimed at examining how African families’ literacy beliefs, practices and resources affect development of ELSs of 3-4 year olds children.

Based on a multiplicative model, Tomblin and Sénéchal (2002) identified three unique predictors of reading competence, namely: phonological processing, print knowledge and oral language. According to the duo, the first two skills prepare children most directly for word-level skills, that is: decoding while the third prepares children to comprehend text. Even though, Tomblin had a conviction that reading competence requires both decoding and comprehension, Sénéchal opined that children must first ‘learn to read’ before they can ‘read to learn’. All in all, the two scholars agreed in principle that the relationship between the two aspects of reading is multiplicative. In essence, this implies that children will never be able to read to learn (i.e. comprehend) if they cannot successfully decode. Of greatest concern to present study is that ELSs are developed from the stages of birth to age five and have a direct effect on conventional literacy skills. This justifies the need to identify ELSs of 3-4 year olds on specific domains like vocabulary knowledge, phonological processing, print knowledge and oral language before children begin formal education.

The most recent results of extended longitudinal studies conducted by Storch and Whitehurst (2002) and NICHD- ECCRN (2005), involving large numbers of children from birth to third grade, identified code-related and vocabulary skills to be highly predictive of
early reading progress. This was found to be true for children from both high and low SES groups. From the above reports, three contentious issues arose: ages at which these influences are apparent, the best predictor skill and the most appropriate time for literacy assessment. These reports especially the NICHD-ECCRN (2005), maintained that broad language skills are best assessed before kindergarten entry because when children progress through the elementary school grades, text comprehension becomes more challenging hence the two skills (code-related and vocabulary) contribute vitally and directly to reading success (NICHD-ECCRN, 2005). However, for other works based on observational studies, assessment was found to be of great value at later stages of childhood.

A similar link was observed among children of low income families. Duncan and Seymour’s (2000) study which examined the link between SES, school readiness and later achievement noted that a significant number of children who come from low income families, arrive at kindergarten with low levels of ELSs making them less likely to be skilled readers with typical instructions provided in early elementary grades (Duncan & Seymour, 2000). Similar sentiments were voiced by Arasa’s study (2004) on “Cognitive Correlates of English Reading Achievement among Standard Three Pupils in Slums of Nairobi Kenya”. According to Arasa, lack of exposure to letters of the alphabet by school entry among low socio-economic status (SES) delays children’s ability to acquire foundation-level literacy. More importantly, Arasa’s study noted that letter sound knowledge, decoding and phonological awareness positively correlated with reading. Nonetheless, this study focused on English reading achievement of urban slum third graders (school age) in Kenya. The
current study shifts emphasis on to early literacy achievement of younger children (3-4 year olds) within the rural town of Kenya.

2.2.3 Estimation of Early Literacy Skills

The practical utility of identifying literacy skills of children in early childhood has been heavily contested. Schatschneider, Fletcher, Francis, Carlson and Foorman (2004) observe that differences between beginning and end of Kindergarten predictions are not statistically significant due to the instability of preschoolers’ performance on measures such as Phonological Awareness (PA) at this time. They attributed the results majorly to size of correlations which was found to be similar between reading and pre-literacy in Kindergarten samples (five years of age) and pre-Kindergarten samples (three to five years of age).

Even so, initial assertions are still supported world over (Gove & Wetterberg 2011). According to an investigation in Western Australian context, children can readily be assessed at the beginning of the preschool year (four years of age) and early intervention is most appropriate at this time (ACARA, 2012; Snow 2006). In addition, Byrne and colleagues (2003) point out that the role of reading-related skills is likely to be much clearer if these are evaluated when the child’s exposure to formal literacy instruction is minimal. Separately, Basic Skills Agency (2002), Brown, Palincsar and Purcell (1986) and Brown, Byrnes, Raban, & Watson (2012) posit that entry assessment provides the teacher with baseline information and perhaps should be done throughout the kindergarten year to help the teacher target and recalibrate his or her efforts over time. The above scholars suggest that assessment of ELSs is of the greatest value to children who hail from high-risk backgrounds (for example rural communities and slums). As such, the main study
respondents for the current study were pre-kindergarteners (3-4-year-old children) in the rural town of Kakamega County in Kenya.

Elsewhere, polarized reports have been published regarding ELS literacy-related competencies which can be termed as the ‘best’ predictors to reading development. Longitudinal analysis conducted by Storch and Whitehurst (2002) of 626 children from Head Start through to fourth grade, attempted to separate oral language from phonological awareness skills. Results indicated a strong relationship between two domains of ELSs, that is, a high degree of continuity over time for both code-related and oral language abilities was detected. More so, in grades one and two, reading ability was found to be predominately determined by the level of print knowledge and phonological awareness a child brings from home or kindergarten. In broad sense, these two models provide evidence that code-related and oral language skills are highly predictive of reading development (oral language and phonological awareness), although they appear to contribute at different points during the development of reading ability. As such the current study’s focus was on both code related and vocabulary skills of 3-4 year olds.

One other study which demonstrated the link between early literacy and reading ability is a comprehensive analysis of experimental studies on phonological awareness instruction conducted by Whitehurst et al (1994). Findings revealed higher reading achievement within small-groups of preschoolers who had phonological instruction. Recently, Passenger, Stuart and Terrell (2000) and Sénéchal and LeFevre, (2002) concurred that early book or print
knowledge and early phonological skills are two ELSs highly associated with future reading achievement.

Literature present at least four critical components of a strong emergent literacy foundation, that is; oral language comprehension, phonological awareness and print knowledge. Some scholars have identified at least one important disposition, print motivation (for example the frequency of requests for shared reading and engagement in print-related activities, such as pretend writing) as a mediator variable (Sénéchal et al 2001; Gove & Wetterberg 2011; Neuman 2002, Whitehurst & Lonigan, 1998). Specifically, Whitehurst and Lonigan, (1998), identified phonological awareness as a requisite skill to formal literacy acquisition and the best predictor of ultimate success in schooling. Adams, (1990, p33) puts phonemic awareness into perspective in his argument “…proficiency in reading depends on automatic capacity to recognize frequent patterns and to translate them phonetically, the failure to learn the mechanics of phonics may be the single most common source of reading difficulties”

Gove and Wetterberg (2011) and Torgesen and Burgess, (1998) equally published the most compelling contention that children who get off to a poor start in reading, rarely catch up. This assertion seems to be consistent with argument of Snow, et al, (1998) that a poor first-grade reader almost invariably continues to be a poor reader. Further, Stanovich (1986) echoes this in his well-known paper the ‘Matthew effects’, a paper that has provided a clear link between poor ELSs and reading failure, better referred as “a leaky pipe”. Based on a path analysis, scholars have attempted to explain the source of this reading failure. Oka and
Paris, (1986), attributed this to negative attitudes towards reading, Nagy, Herman, and Anderson,(1985) linked it to reduced opportunities for vocabulary growth , Brown, Palinscar and Purcell,(1986) argued that it results from missed opportunities for development of reading comprehension strategies while Allington, (1984) attributed it to less actual practice in reading .Over and above, the underlying principle is that a slow start in reading becomes monumental as deficiencies accumulate exponentially over time. This necessitated a determination of ELSs of children at preschool entry hoping to make it possible for early intervention for those in the slippery slope of reading failure before formal literacy instruction. As such, one of the present study’s objectives was to determine ELSs of 3-4 year olds in Kakamega Central Sub-county.

2.2.4 Early Literacy Skills, Reading Development and School Success

The link between ELSs, reading development and school success is extensively reported (Dickinson & Neuman, 2006; Neuman & Dickinson, 200; Gove & Wetterberg, 2011). Specifically, Dickinson and Neuman, (2006) argues that learning to read is the most important skill of early education because the task of ‘learning to read’ in the early school years, leads to ‘reading to learn’ in later grades. The duo equally pin point that children who arrive in kindergarten with a foundation of pre-literacy skills, interest and motivation to learn, are better prepared for the complex task of learning to read than those who lack these foundational skills (Dickinson & Neuman, 2006; Wasik & Neuman 2009).
On the other hand, some specific pre-literacy skills and behaviors are identified as the most important mediators to reading and success in school than others. For instance, conclusions of reports of the National Early Reading First initiative as well as investigations that drew heavily upon preschool and kindergarten classroom observations, strongly suggested that engagement and motivation is every bit as important a factor in emergent literacy development as it is for literacy learning throughout the elementary and secondary schools (Justice & Vukelich 2007; Hernandez, 2011). Likewise, Dreher and Guthrie (2000), underscore motivation as a central factor in reading achievement:

“...more highly engaged readers show higher achievement than the less engaged readers...the motivation associated with becoming engaged in reading can help overcome obstacles to understanding a specific text (lack of adequate background knowledge, inadequate familiarity with certain key vocabulary, and so on) or even to more general risk factors typically associated with lower reading achievement (for example, coming from a low-income background, ELL status” (p. 69).

On this basis, we can recognize that reading to learn is a difficult task that requires sustained motivation and persistence. Unfortunately, a number of observations and reports focus on children in the elementary grades leaving out the most crucial age where foundational literacy development starts. Therefore, the present study’s focus is on ELSs of pre-kindergarteners with print motivation as one major domain of investigation among others.

A lot of intervention promotion schemes are hinged on these premises (for example NICHHD, 2000). Specifically, Justice et al., (2003) and Hernandez (2011), appreciate the critical role of ELSs and reading on school success. They argue that ELS’s provide children with a window to the digital world, enable children to succeed in school and ensure that
each child seizes his or her potential for future success. This view has been shared by other studies devoted to school age children (Strickland and Riley-Ayers, 2006; Gove & Wetterberg, 2011; Hernandez, 2011) in their studies which discovered strong links between ELSs and academic achievement, reduced grade retention, higher graduation rates as well as productivity in adult life. For instance, Strickland and Riley-Ayers study (2006), observed that 74% of third graders who performed poorly in reading continued to do so into high school.

Strong ELSs, are crucial in a number of language development outcomes. They are linked to a child’s capability to demonstrate letter identification before age five (Arasa, 2004; Ann, 2002) as well as an understanding of narrative and story (Wells, 1986). Equally, understanding of writing functions (Teale & Sulzby, 1986), knowledge of nursery rhymes (Ghoting & Pamela, 2006), phonological awareness (Goswami & Bryant, 1990) and capability for explanatory talk (Dickinson & Beals, 1994) are skills that depend highly on strong ELSs. In this regard the current study believes that identification of ELSs of children at this early (age 3-4 years) can timely inform design of intervention programs (Brooks, 2002) for children in the rural settings who are known to be at highest risk of reading failure (Lynch, 2008 & Ngorosho, 2010).

A separate correlation study conducted by Juel and Lentz (1988) also demonstrated this link when it examined the link between reading failure and special needs. It was clear from the results that a majority of school age children who were evaluated for special education services were referred because of unsatisfactory progress in reading. The study’s major conclusion was that children entering school with limited reading related skills are at the
highest risk of qualifying for special education services. Confirming this is NICHHD’s, publication of (2000), that a majority of children who experience serious problems with reading (10-15 %) eventually drop out at high school and consequently turn into crime.

Related body of research confirms that ability to read provides a solid foundation for future education, job training and general life success (Hernandez, 2011; IRA & NAEYC, 1998). For instance, Snow et al (1998) observed that reading is a strong predictor of future academic success and has long-term social and economic implications for individuals, families and societies. This is perhaps well expressed in a joint position statement by IRA and NAEYC (1998, p33) “...the best predictor of whether a child will function competently in school and go on to contribute actively in our increasingly literate society is the level to which the child progresses in reading and writing.”

Baker, Dreher and Guthrie (2000) and Clay (2001), put forth a similar claim that students who experience difficulty in reading present instructional programmatic and policy challenge. To these scholars, inability to read with fluency by third grade is associated with a significantly higher risk of dropping out, delinquency and illiteracy. On the same note, NICHD, (2000) noted that limited progress of such students not only created enormous academic pressure, but also contributed to the abundance of referrals for special education and related services. As such, in a comprehensive book entitled “Reading for Success”, McPike (1995, p 3) sums it in a statement: “…reading is the ‘gateway’ to all other knowledge and students’ learning (...) paths are blocked when children do not learn to read early in their school years”
In keeping with this perspective, National Institute of Literacy (2008) published a paper: “Developing Early Literacy” with a number of themes running among them early literacy and its link with conventional literacy. One impressive argument in this book is that the foundational reading and writing skills that develop from birth to age five have a clear and consistently strong relationship with later conventional literacy skills. Precisely, six variables that is, alphabetic knowledge, phonological awareness, rapid naming of objects, colors, letters and digits phonological memory and writing name, not only correlated with later literacy, but also maintained their predictive power even when the role of other variables, such as IQ or socioeconomic status (SES), were accounted for. This was found to be generalizable based on the fact that data was drawn from multiple studies with large samples of children (NIL, 2008).

Based on such diverse body of evidence, it is not an exaggeration then to say that prevention of reading difficulties from the early years is a matter of survival for many children. ELSs role in preparing a child for kindergarten and promoting a child’s literary success in entire education and even into adulthood appear to be undisputable (NELP, 2002; 2008). Therefore, if we do not assess ELSs at entry into preschool we may not be able to determine appropriate intervention. Such negligence is also likely to cause catastrophic failure at school entry, starting down the slippery slope of non-achievement before children even have a chance to compete or/and lack of preparation for reading instructions that children will receive in first grade (NELP 2001; Newman 2005; Snow 2006). The determination of pre-reading and prewriting abilities (for example oral language, print knowledge and phonological awareness among others) of pre-kindergarteners (3-4 year olds) from diverse
socioeconomic backgrounds (rural, peri-urban, urban) in Kakamega County is thus critical in spurring research attention, generating a comprehensive report into the issues surrounding literacy failure and also to predict literacy developmental trajectory of Kenyan children based on six critical content categories of early literacy discussed below.

2.3 **Domain Elements of Early Literacy Skills**

There are numerous early foundational skills that make a difference in getting children ready for the next step, but some ELSs appear to be more important than others (Lonigan, Wagner, Torgesen & Rashotte, 2002). The strongest and most consistent predictors of later literacy are Alphabet Knowledge (AK), Phonological Awareness (PA) and memory; rapid automatized naming of letters and objects and writing letters (Tracey & Morrow, 2007; Storch & Whitehurst 2002; Scarborough, 2001; Snow, 2006). These are discussed in detail in the subsequent section.

2.3.1. **Oral Language**

Oral language (that is speaking and listening), the ability to produce or comprehend spoken language is the foundation for literacy development (Matafwali, 2010). It provides children with a sense of words and sentences and, builds children’s sensitivity to the sound system so that children can acquire phonological awareness and phonics. According to Whitehurst and Lonigan, (1998), oral language skills that are important for the development of literacy include: vocabulary, syntactic knowledge, listening and narrative comprehension.
Specifically, vocabulary knowledge is a core component of language proficiency and the ultimate goal of reading instruction (Bracken, 2005; Scarborough, 2001). It facilitates comprehension of what is read and may even assist children to read words when they have difficulty in decoding. Vocabulary provides much of the basis of how learners speak, listen, read and write (Sénéchal Ouellette & Rodney, 2006). Neuman and Dickson (2002), observes that improving young children’s vocabulary skills will have long-term consequences for their reading comprehension. In agreement, Schatschneider et al (2004), argues that children’s vocabulary, measured in kindergarten, is one of the best predictors of reading comprehension in grades three and four. In essence, children with stronger vocabulary skills tend to have better reading comprehension skills in grade three.

Separately, Snow and Oh (2011) acknowledges that vocabulary is a reliable indicator of early and later literacy outcomes. It correlates highly with many other indices, namely: reading and listening comprehension (Hirsh, 2003), academic success (Jalongo & Li, 2010) and children’s success in school (Sénéchal & Rodney, 2006). Elsewhere, Neuman (2011) places vocabulary at the forefront of early literacy instruction. On the other hand, syntactic knowledge promotes the use and comprehension of complex sentence composition and appears to be important for both emergent and conventional reading skills. It promotes children’s understanding of narratives and text (Matafwali, 2010; Whitehurst & Lonigan, 1998) because through their own speech, children demonstrate understanding of the meanings of words and written materials. This is to say, strong and wide vocabulary increases children’s ability to make sense of what a word might be while using what they know about phonics.
Importantly, oral language skills can be enhanced at home, in child-care centers and in kindergarten (Share, Jorm, MaClean, Mathews & Waterman, 1983). Children’s vocabulary expands with positive, nurturing relationships and opportunities that allow one-to-one responsive conversation with adults. Especially so, when adults rephrase and extend a child’s words (Share et al., 1983), model more complex sentences or vocabulary structure (Hall & Moats, 1999), encourage children to retell their experiences, describe ideas that are important to them and expose children to a variety of settings (Shonkoff & Philips 2000: IRA & NAEYC, 1998).

2.3.2 Phonological Awareness

Phonological Awareness (PA) is the understanding that a stream of spoken language is made up of smaller units of sound. It also entails an individual’s ability to focus attention on the sounds of spoken language (Lonigan, et al., 2000). PA enables one to detect, manipulate or analyze the auditory aspects of spoken language (that is the ability to distinguish or segment words, syllables or phonemes) independent of meaning. According to Yopp and Yopp (2000), the journey toward PA begins with listening attentively to words then organizing sounds into simple categories (by ending and beginning sounds). It goes further into understanding the concept of words, manipulating the sounds (syllables) in words and finally hearing individual sounds (phonemes) in words. Importantly, play literacy research argue that appealing play activities (for instance rhymes, word play) that focus on the sound structure of language support development of PA (Roskos & Christie, 2010).
Essentially, PA is one of the most powerful predictors of later success in reading. Whitehurst and Lonigan (1998), longitudinal study which involved 526 Head Start children found out that about 50% of the differences in reading outcomes at the end of second grade were accounted for by differences in PA. Reading research among English Language Learners (ELL) equally links PA to word recognition skills. For instance, PA measured in either the child’s first or second language predicts individual differences in the development of word recognition and word attack skills in the second language. This is to say, children are able to learn to read words in their second language through decoding, despite limited oral language skills in the new language. As such, Whitehurst and Lonigan, (1998) explains:

“…without PA, later instruction in phonics and decoding does not make sense because children do not discriminate the sounds of letters, words, and parts of words in the spoken language stream…with repeated exposure to text and opportunities to decode, all children become more fluent word readers” (pg. 78).

According to Lonigan, et al., (2000) and Vygotsky (1978), PA relies on behaviors modeled and supported by adults. Opportunities for language play such as rhyming provides a perfect time for such interface. As such, the main reason for advocating for adults support in development of PA is that some children develop a degree of PA on their own very readily, while others require more help from adults. Caregivers support may enable some children to use meta-cognition (the process of thinking about and regulating one’s own learning) to achieve a higher level of PA (Vygotsky, 1962, 1978). As such, one of the main objectives of the present study was to identify the kind of literacy support available for children in the development of PA as well as children’s outcomes in PA among other pre-literacy skills.
2.3.3 Book Knowledge and Appreciation

Books are important tools for learning, hence require special knowledge and handling (Neuman & Roskos, 1993). They offer perfect opportunities for conversations that go along in building oral language, especially when children are engaged in answering questions and discussions (Lancy, 1994). According to Morrow and Gambrell (2001), books are ‘literacy objects’ that have interesting content, rich vocabulary and detailed illustrations. They help children build oral language and vocabulary, understand the meaning of words and generally how language works. Equally, children’s books contain rich vocabulary in a natural context because they contain a variety of words that might not otherwise come up in daily conversation and those words often occur in complete sentences in the books (Duke, 2003; Baker & Scher, 2002 Snow et al., 1998). Books with lots of interesting illustrations and simple text are best for encouraging young children to talk about what is happening in the pictures and storylines. As children get older, books are important in exposing them to new ideas, new words, and new worlds (Harris & Goodall 2007). As such, it is reasonable to say that the types of books available can make a difference in children’s interest in and use of books for learning and enjoyment.

Handling books is yet another important pre-literacy predisposition. Children need to learn, elements of a book, where to look for them, how to hold or turn pages from front to back (Duke 2003). Children with BK are motivated to read, connect reading events to real life and experience both the pleasure and power of reading. According to Whitehurst et al. (1994), all children can come to appreciate books, find reading enjoyable and learn that
literacy has a purpose when exposed to books. However, to gain optimal benefit from books, hands-on experience under adult tutelage is vital (Neuman & Roskos 1993). Essentially, books must be accessible to allow careful demonstration on book handling especially for children with less experience.

Over the last years, reading to and with children, has proven to be the best predictor variable for reading development (Harris & Goodall, 2007, Duke, 2003; Baker & Scher, 2002; Snow et al., 1998). Opportunities of these kind are effective strategies for promoting BK (Morrow & Gambrell 2001). During such interactions, children ask questions such as: where is the cover? Who wrote it? (i.e author) Who drew the pictures? (i.e illustrator) Where do I start reading? What are letters? What are words? Where do I go next? (i.e left to right and top to bottom orientation). From such verbal exchange, children easily become familiar with elements of a book and perhaps more meaningful when they create their own books (Baker & Scher, 2002).

Interactive book talk is one of the best ways to help children become familiar with different kinds of print (Baker & Scher, 2002). By reading and re-reading stories, adults help children follow elements of narrative, retell stories, demonstrate understanding of events, engage in creating narratives, scripts as well as dramatic play. Such joint interactions in turn support understanding of story elements, extension of ideas and clarification of misunderstanding (NELP, 2001) These not only promote vocabulary development, but, also builds children’s self-confidence and prepares children for the literacy world (NELP, 2001). In line with this reasoning, Lancy (1994, p 3) states:

63
“Literacy is influenced by conversations a child has participated in, by being read to, by opportunities to enact stories in play. (...) becoming literate occupies every waking moment throughout childhood. It is a dynamic process, through which literacy-related competencies grow and change over time. With appropriate stimulation, the competencies required for reading and writing emerge”

It is therefore accurate to say that reading and writing development is a continuous process with roots in the home and, branches extending to other environments. As Tabors et al, (2001) and Wasik (2001) put it, literacy development is only possible through exposure to oral language, written language, books and stories. Thus, homes should have adequate supply of children storybooks or any other resource (for example fiction and non-fiction, poetry, information, stories, children’s references picture dictionaries and encyclopedias) that serve children’s interest and allow them to engage in literacy experiences.

With these ‘literacy objects’ available in the physical environment of the child, (for example a child’s library, book corner or child’s ‘office area’) they would then explore different features, characteristics or circumstances of the topics. More comfortable places for children to sit could be identified and stuffed with items such as magazines, pamphlets, wall posters, assorted paper and envelopes, telephones and telephone directories, forms, files and folders, pens and pencils, calendars, recipe cards, cookbooks, library cards, coupons and notepads. In such an environment a child would readily gain book knowledge and other related skills. It is on this basis that this study sought to assess 3-4 year-olds’ level of awareness of book features in Kakamega Central Sub County.
2.3.4 Print Awareness and Concepts

Print Awareness (PA) refers to children’s knowledge about print, that is, the knowledge that print on a page represents the meaning of words rather than pictures or other features of a book (Adams, 1990). It encompasses understanding print components such as letters of alphabet, cover of a book, book title, letters, numbers as well as sounds (Whitehurst & Lonigan, 2001). It extends to knowledge of conventions of print, such as left-to-right and top-to-bottom orientation of print, differentiating between a cover of a book and a page as well as recognizing punctuation and spacing between words and sentences (Clay, 1979).

According to Adams (1990), PA includes understanding that print performs a variety of functions; recognizing print in the environment (signs and labels) and realizing that print represents speech or thoughts written down. These are important elements which constitute developmentally appropriate outcomes in literacy learning (Clay 1985). PA does not only contribute to reading development. It has been linked to development of early writing skills, namely: letter and name writing, and spelling (Burgess, 2006; Lonigan, 2006; Lonigan et al 2000). Specifically, Lonigan and colleagues’ longitudinal study (2000) revealed that letter knowledge and phonological sensitivity were significant factors in children’s ability to decode words in reading.

One other strong predictor of later reading success is the ability to write one’s name at the beginning of kindergarten. This is a skill that encompasses many of the elements of print awareness (Riley, 1996). According to scholars (see Morrow 1990; Neuman & Roskos 1993; Vukelich 1994), developing print awareness is challenging, but achievable within a
stimulating context that permit play with books. Children’s play is highly motivating and is one of the most effective strategies for learning concepts of print as well as other important literacy skills (Roskos & Christie 2010). According to Neuman, Hood and Ford (2013), enriching home play settings and experiences with environmental print and literacy tools are effective ways of helping children accomplish many literacy outcomes. Such enriched contexts permit children to engage in activities such as scribbling with tools (for example charcoal, chalk and crayons) and to learn functional use of print in the environment (for example communication, expression, explanation, direction, and information). Neuman & Roskos (1992) and Roskos & Christie (2010) have consistently demonstrated that when children interact with signs of hand washing steps, road signs, prize lists and daily menu they understand the role of print for instruction and communication.

2.3.5 Alphabet Knowledge

All languages have alphabetic letters used to represent written or spoken sounds. As such knowledge of and familiarity with the visual shapes of the individual letters is an important prerequisite to early decoding, spelling ability, later reading and writing achievement (Network, 2005; Sénéchal & Rodney, 2006; Schikendanz & Casbergue, 2009). This is based on the understanding that there is a systematic relationship between letters and sounds and that spoken sounds and words, can be represented by a limited set of agreed-upon symbols. It is also true that learning letter names often turn spontaneously into interest in letter sounds and spellings of words since some letters contain information about their sounds (Richgels, 1986).
According to Schikendanz & Casbergue (2009), early writing, decoding written words or writing would not be possible without Alphabet Knowledge (AK). For instance, knowledge of letter names is strongly associated with children’s ability to remember the structure of written words and the tendency to treat words as ordered sequences of letters rather than holistic patterns. Conversely, lack of letter-name knowledge is associated with difficulty in word recognition and in learning letter sounds. As expressed by Burgess (2006), letter knowledge may help direct a child’s attention to the components of words and the general idea that they can be represented as smaller units. This agrees with findings of Manolitsis, Georgiou, Stephenson and Parrila (2009) in their impressive study which revealed that letter knowledge in kindergarten predicted non-word decoding and reading fluency in grade one better than any other measure including phonological sensitivity. Additionally, Leppänen, Aunola, Niemi and Nurmi (2008), demonstrated that a combination of letter-name knowledge and phonemic awareness is a better predictor of reading skill in grade one than phonemic awareness on its own. However, ability to recite the alphabet was found not sufficient on its own because children must be able to recognize each letter in isolation before recitation.

Importantly, preschoolers may not fully grasp alphabetic principle but should be well on their way to knowing letter names and recognizing most of the letters, especially those that are meaningful to them, for instance, letters in their name, friends’ names or special words (Neuman & Roskos, 2005). Essentially, a child’s ability to recognize letters quickly and accurately (rapid naming) is a necessary prerequisite for later decoding of unfamiliar print and is also a strong predictor of success in reading during first grade (Arasa, 2004).

67
Likewise, letter knowledge is valuable to a 3-4-year-old child because each letter name is close to the sound it makes in words (for example, the name of B is closely related to the phoneme /b/). With such appreciation children can begin to understand the letter-sound relationships. In this regard, AK is one aspect that has been the focus of this study.

2.3.6 Print Motivation

Developing young children’s appreciation for books and their motivation to read is a fundamental goal for early childhood education. Print Motivation which entails being interested in and enjoying books, is an important early literacy skill because learning to read is a hard task that calls for sustained interest (Scarborough & Dobrich, 1994). As argued by Oldfather and Wigfield, (1996), children who enjoy books and reading will be curious about reading and will be motivated to learn to read themselves. Conversely, children who have negative experiences with books and reading, wind up with less interest in reading and less desire to learn.

Extant literature appreciates that for nearly every child, the process of learning to read becomes difficult at some point along the way. This could be in (i) first grade where decoding becomes the focus of instruction, (ii) second grade where conventional spelling is demanded, or (iii) third grade where comprehension takes center stage (Snow et al., 1998, Scarborough & Dobrich, 1994). Nonetheless, from a paths analysis, young children who are motivated to learn to read are more likely to persist when they encounter challenges, a construct dubbed ‘reinforcement model’. It recognizes that reading is a complex task that requires persistence (Scarborough & Dobrich, 1994). Motivation to read, appreciation of
books and frequency of book reading engagement are thus considered as mediator variables. Meaning, the more a child reads the better reader s/he becomes. In deed Scarborough & Dobrich (1994) affirm that motivated children are almost always better readers as a result of sustained curiosity that takes them to books to find answers. Persistence leads to concentration through difficult reading tasks, sharpens reasoning abilities and support comprehension of the text. Better put, children’s motivation for reading leads to increased frequency of engagement in literacy-relevant activities which in turn improves children’s literacy skills.

Echoing this argument is Oldfather and Wigfield’s (1996), construct of ‘motivation and reading’. The two colleagues present motivation as a multidimensional aspect. To the two, motivation encompasses (i) children’s interest in and attitudes about reading, (ii) children’s sense of self-efficacy as readers and, (ii) children’s valuing of different types of reading activities. In this sense, we recognize motivation for reading as both a consequence of reading experience as well as a predictor of later reading skills (Oldfather & Wigfield, 1996; Scarborough & Dobrich 1994).

To offer more grounded arguments, scholars have attempted to explain the role of motivation in reading development. For Gambrell and Morrow (1996), motivation results from initial reading motivation or desire to engage in literacy activities which later culminates into sustained reading motivation. In their case, Gambrell and colleague impress upon parents to read with their children as often as they can with the knowledge that even a few minutes a day can make a difference. Baker and Scher (2002), agrees that even when
children join school with limited understanding of the value of learning to read or fail to develop an interest in reading while in school, motivation to read plays a very large role in determining continued expansion of reading skill especially after the beginning stages of learning to read.

Oldfather and Wigfield (1996) and Scarborough and Dobrich (1994), approach this from an experiential learning perspective. They argue that children naturally imitate actions of their parents and important adults around them. This enables them to gain interest in the activities carried out by those adults. Based on this synthesis, the social context within which reading occurs appears to be important in fostering motivation. The home is one of these contexts which should be in the forefront in providing such motivational experiences, (Sonnenschein, Baker, Serpell & Schmidt, 2000). When children experience pleasant reading attitudes and interactions with caregivers at home, they may develop an interest in continuing to engage in such interactions and in learning how to read. As such, the present study sought to document literacy motivational aspects within 3-4 year olds homes in Kakamega Central Sub-county and the resultant variations of these in children’s early literacy achievement.

2.3.7 Early Writing

Engaging children in their own writing is one of the best ways to help children to learn to read (Neuman, Copple & Bredekamp 2000). Specifically, writing enhances print awareness as well as many other pre-reading predispositions. As Snow et al., (1998) argue, engaging children in early writing not only promotes muscle maturity for pen handling, but also an essential hands-on learning experience that helps them to learn about print and written
words that they will eventually read and spell. It means then that young children should have ample opportunities of access to paper, crayons and other materials for drawing and writing, exploring shapes and imitating features of adult writing (Neuman et al., 2000).

Obviously, children’s first writing attempts may initially look like uncoordinated scribbles, but gradually these scribbles become more deliberate and controlled (McGee & Richgels, 2007). Soon, they incorporate letter-like shapes or symbols, circles and lines, in their drawings and later, alphabetic letters and invented spelling replace these marks. In the long run, phonetic spelling sets in permitting children to initially attempt to associate sounds with letters. It means then that the process of trying to figure out how to write words is an important step on the way to learning conventional spelling (Neuman et al., 2000).

Caregivers’ attempts to observe and talk to or with children as they produce these spellings enables monitoring children’s understanding of letter-sound relationships and catalyzes the writing process. As young children experiment with writing, adults have many opportunities to convey basic information about print for example, directionality of print (for instance writing from left to right) as well as other aspects (use of special symbols called letters, specific names of letters and sounds). As opined by Neuman et al., (2000), the more frequently children write, the more children learn about print and how it works. Needless to say, there should be a variety of materials and abundant opportunities for children to engage in writing, drawing, scribbling, “driting” (a combination of drawing and writing), some letter-like forms, and even some letters sketching activities incorporated into play and projects.
In support of this view, is Vygotsky (1962) who postulates that emergent writing is based on behaviors modeled and supported by adults. It is adults that encourage children to change and refine their own ideas to more closely match conventional notions. For Vygotsky, early writing is not only about learning to form letters, but rather, about using print for real reasons. He confirms that children most readily approach letter learning by first focusing on the letters in their own names and also that they need to see adults writing, so that they write themselves and imitate pen handling techniques. These activities enable children to learn: different text that forms different functions, new vocabulary of print and, that writing is a useful way to share information and have fun (Neuman et al., 2000). It is important then to determine and assess children’s knowledge of letters in the context of their everyday activities by observing children’s play and examining their drawing/writing samples for evidence of letter learning. This is one component that the present study examined.

2.4 Early Childhood Period as a Prime Time for Literacy Development

The time of early childhood prior to Grade one is a qualitatively unique developmental period for not only language and literacy learning, but also multiple learning readiness skills. Scholars (Snow et al., 1998; Juel, 1988; Stanovich, 1986) have been consistent in demonstrating relative stability of individual differences in reading achievement during the elementary years. Over time, there has been a strong argument about cumulative nature of literacy development. This is to say, all cognitive skills begin to develop very early in life and follow rather stable trajectories over time. Champions of the two views agree in principle that children’s developmental course begins to solidify before they enter formal schooling or rather before children utter their first words. Probably, a clear demonstration is
found in longitudinal analysis by Hart and Risley (1995) who discovered that children’s early experiences can lead to striking differences among children from enriching versus impoverished environments. Similarly, Maduewesi (1999) has provided considerable information on the importance of the early years of life in laying the foundation of learning. Accordingly, he states:

A child learns in the first five years of life than at any other. The brain of a child grows at a tremendous rate reaching almost its mature bulk, while the mind develops with corresponding velocity, such that never again will a child make such rapid advancement. During the first few years a child acquires literacy learning patterns, skills, behavior, habits and attitudes (...)50 percent of growth potential in educational achievement takes place between the age of four and five years (p.76)

On yet a different lens, neuroscience aptly provide a wealth of evidence that a child’s brain architecture is set in the early years and takes shape with a speed that will never again be equaled (UNICEF, 2001). From brain analysis, a child’s brain in the early years, gains sophisticated level of functioning enabling children to think, speak, learn and reason. This shapes the quality of children’s future education. In broad sense, the early childhood years represent a critical transition period for later academic success (Neuman & Dickinson, 2001; Snow et al.,1998; Whitehurst & Lonigan, 2001) and is a sensitive period during which adequate stimulation must be received or development is completely impaired (UNESCO, 1995:2006).

These sentiments are comparable to reading assessments and literacy reports world over (Justice et al., 2003; Dickinson & Neuman, 2006; Neuman & Dickinson, 2001; Goodson & Layzer 2009). According to these scholars, developmental precursors of formal reading and
writing emerge early before formal instructions and can be stimulated right from home. As implied in the statement of Goodson and Layzer (2009):

“...even before children start school, they can become aware of systematic patterns of sounds in spoken language, manipulate sounds in words, recognize words and break them apart into smaller units, learn the relationship between sounds and letters, and build their oral language and vocabulary skills” (p.85).

Bennett-Armistead, Duke and Moses, (2005) adds that

Children do not have to ‘get ready’ to learn how to read and write. They begin learning language and about language from the moment of birth. It’s never too early to begin reading to your child, babies love hearing the sounds of their parents’ voices reading to them, even when it is the morning paper. What we know, children thrive when they are immersed in rich language, oral and written, as they play with language, recite nursery rhymes, sing songs, engage in daily conversations and book reading. These are important experiences that weave children into literacy morning, noon, and night day, enabling them learn best through repeated exposure to materials and experiences (p.196)

Based on the above premise, scholars acknowledge rudimentary routines and simple practices such as talking, pointing, singing, storytelling and reading to children by caring human beings in stimulating environments as catalysts that turn on brain cells for a healthy literacy development (Mistry, Biesanz, Taylor, Burchinal & Cox, 2004). Specifically, the neuroscience thoughts continue to converge around the prevention intervention model cautioning that literacy deprived homes are likely to make children fail before they start (Canadian Council on Learning, 2007: Ghoting, 2006).

This model shifts way from Walsh (1989) and Gesell’s (1940) ‘reading readiness’ thinking which emphasizes on ‘waiting’ until the child is ready to learn to read. For Walsh and colleague, children cannot develop reading concepts until a certain maturation level is
reached. Specifically, this view appears attractive to scholars concerned with childhood stress, such as Elkind (1981). In his argument, Gesell reveals that:

Reading is a complex achievement, which came late in the cultural history of the race. Why should it not come with difficulty and delay for countless children who for reasons of maturity and inheritance have insufficient command of basic coordination of eyes, hands, speech perception, and comprehension at the age of 6 years? It is most likely that many of the early reading difficulties would vanish if the natural processes of maturation were given a chance to assert themselves (p.g. 83)

Over and above, waiting for natural process of maturation to assert itself before literacy stimulation has been criticized heavily by reading remediation reports. According to NICHD-ECCRN, (2005) and IRA/NAEYC, (1998), preventing early reading failure or interventions for young children most at risk of reading failure at an early age has shown immeasurable gains. For instance, Clay (2001) observe that poor readers in first grade remain at the bottom of the class in later grades. It means waiting for low-performing children to mature, denies them the opportunity to learn about literacy concepts before they are too far behind their peers. Separately, Bryant and Wasik (2004) concurs that constructed instructional interventions before kindergarten improve children’s later reading development. To add on, Justice and Pullen (2003) argue that early exposure and children’s participation in meaningful literacy events in an implicit manner without direct instruction leads to spontaneity and meaningful learning

Based on the above arguments intervention scholars have maintained their push for family literacy interventions, particularly for most disadvantaged, hardest-to-reach children, ethnic minorities and low income families (Kennedy, Flaherty & Cheryl, 2002). According to the trio, the model should be entrenched in systems where early grade classroom interventions
have not translated to expectations of educators, policy makers and parents, as observed in Kenya (Uwezo, 2011 2012; USAID, 2010; IRA/NAEYC, 1998; Juel 1988). Specifically, Juel (1988) advocates for literacy intervention before formal instructions in a statement:

Although it has been found that good teaching can improve a child’s developmental trajectory, what seems to happen more commonly is that schooling simply reinforces the emerging developmental trends and usually widens the gap between good and poor readers (…) with few exceptions, the developmental trajectory of most children appears to be well established at school entry (p.89).

Caregivers especially mothers, are increasingly recognized as chief supporters of education of young children in becoming literate learners (Wade & Moore 2000; Bus, et al 1995). Parents do engage children in conversation and innumerable print encounter right from home. They assist children to identify environmental print, talk about functional print (for example the print on kitchen appliances, on food products, on electronic gadgets among others), listen to and discuss stories from a favorite storybook, play with language through riddles, rhymes, songs and so forth. As put by Wade and Moore (2000) such chances are provided for by caregivers who understand that they have a stream of benefits that last a lifetime namely; complex understanding about print, the world and how print works. This conceptual knowledge is likely to build into cumulative and invaluable measures, some of the benefits that go beyond school (Burgess et al., 2002; Whitehurst & Lonigan, 2001). As such this study endeavored to establish not only the beliefs, perceptions, ideas and values parents hold about reading development during this period, but also whether they put any meaningful effort that may lead to early literacy development among their 3-4-year-old children.
2.5 Conceptualizing the Home Literacy Environment

Studies published on factors that support emergent literacy (Aaron, Joshi, Gooden, & Bentum, 2008; NICHD- ECCRN, 2005; Scarborough, 2002) acknowledge two categories of factors, that is, within child and within family variables. At the center of much theorizing is the role of experience and context in explaining variation in emergent literacy and language competence (Connor, Morrison, & Slominski, 2006).

Broadly, these scholars argue that significant variability in children’s literacy experiences (i) emerge long before formal schooling (Farver, Xu, Eppe, & Lonigan, 2006; NICHD- ECCRN, 2005) (ii) is remarkably stable over time (Scarborough, 2002); and (iii) relates to what theorists call ‘Environmental Opportunity Hypothesis’ (Stanovich, Cunningham, & West, 1998). Presumptions of the EOH is that children whose homes provide less stimulating environments and experiences for optimal literacy development, are at higher risk for reading difficulties than children whose homes are ‘literacy rich’ (Snow et al 1998). This provides the initial reasoning behind the concept ‘Home Literacy Environment’

Overtime, studies have discovered two instructional contexts that provide developmentally appropriate settings, materials, experiences and social support for early forms of reading and writing to flourish and develop into conventional literacy. These are: home and school. Even so, the role of the home context has remained somewhat unclear in the developing parts of the world. Recently, the relationship between literacy contexts and reading failure has sparked debates on whether it is home or school having the most considerable impact in literacy stimulation for the most disadvantaged child (Weigel et al., 2007). Strands of
literature from developing countries emphasizes more on classroom-based interventions while scholars in the West front the view that literacy skills are inextricably linked to the home environment (Vernon-Feagans, Hammer, Miccio & Manlove, 2001). Somehow, there is an appreciation that reading and writing development is a continuous process with roots in the home and, branches extending to other environments. Even so, operationalizing HLE still proves to be a difficult task, as there is no convincing literature or definition regarding the exact components of an ideal ‘literacy stimulating environment’.

Traditionally, researchers conceptualized HLE by examining frequency of shared book reading between parents and children (Burgess et al 2002). However, this has been considered by some to be too simplistic and not a full representation of important factors in the HLE. Recent advocates of context as a predictor of literacy development posit that HLE is composed of more complex factors such as attitudes, resources, activities (including shared book reading) as well as parental skills and abilities (Burgess et al., 2002).

Recently, Van Steensel (2006) illuminated this complexity when he administered a survey to parents of kindergarten children in the Netherlands (mean age of children was 6.4 years and 46.6% were girls), to gather information on home literacy activities. He asked questions about various parent activities (i.e. reading books, magazines, or newspapers, writing letters among others). He also gathered information on activities involving both parent and children such as book reading, writing, visits to the library and singing children’s songs. His study’s focus was on type and amount of literacy activities that parents and children engaged in on their own (writing letters, perusing magazines, reading/looking at books) and jointly with
their children (going to library, shared reading, storytelling and viewing educational television programs).

From his findings, Van Steensel coined three types of literacy contexts (i) a rich environment where parents and children participating in a vast array of the literacy activities, both together and on their own, (ii) a child-directed environment with fewer literacy activities, but still some occurrence of high priority activities, such as shared reading, singing, and library visits, and (iii) a poor literacy environment with very little participation in literacy activities by either the parent or child. Van Steensel concluded in a statement “…HLE is much more complex than the picturesque version of a child seated on a parent’s lap, enjoying a storybook together” (p. 78).

The importance of the HLE as a contributor to young children’s emergent literacy is grounded in the fact that the home serves as a setting in which language and literacy are typically first encountered (Purcell-Gates, 1996). Specifically, DeBaryshe et al., (2000) believe that the home environment is crucial in the development of ELSs because children may have lots of opportunities at home to: (i) become familiar with literacy materials, (ii) observe the literacy activities of others, (iii) independently explore literate behaviors, (iv) engage in joint reading and writing activities with other people and (v) benefit from the teaching strategies that family members use when engaging in joint literacy tasks.

Elsewhere, Saracho (1997) argues that literacy level of a parent and availability of reading materials are the primary characteristics of the HLE. Leseman and de Jong (1998) expanded
this by including three more aspects of the HLE that is; opportunities for practice, promotion of literacy activities by literate family members and motivation. Studies (Christian, Morrison & Bryant, 1998), included aspects such as the age of the child when joint book reading began, independent child or caregiver reading, frequency of library visits and frequency of behaviors that interfere with reading (for example television viewing). The potential influence of the parent as a model for literacy activity is thus considered an important construct in defining the HLE (Teale, 1986). Specifically, the idea of a model has stimulated enormous research on parent book reading and newspaper or magazine subscriptions as a separate component of home literacy activities (Payne et al 1994; Scarborough, Dobrich, & Hager, 1991). Essentially, Griffin and Morrison, (1997) maintain that information about parent reading is part of a larger construct that also warrant inclusion in the HLE framework.

Burgess et al., (2002) came up with a more expansive conceptualization of HLE. To them, HLE encompasses a variety of resources and opportunities provided to children as well as parental skills, abilities, dispositions and resources that determine the provision of these opportunities for children (Burgess et al., 2002). Even so, Leserman and de Jong, (1998) criticized their view arguing that participation in literacy-related activities in the home is equally crucial. The duo suggested inclusion of aspects of exposure such as availability of print material and frequency of reading. According to the latter, a literacy-rich home environment means more than just having books and writing materials, but rather includes an effective and organized environment with stimulating print materials as well as one that demonstrate how materials are used in literacy circles.
In defining the home as a setting in which literacy is typically first encountered, Weigel et al., (2006) and Burgess et al., (2002) concurs with Leserman and colleague (1998). The former acknowledge that HLE is all about uncountable shared literacy-related activities, (for example conversation or book talk), exposure to modeled reading behavior as well as print rich environment. Specifically, Burgess et al., (2002) state:

A home literacy environment is an organized, print-rich environment which sends a dual message that reading is an important value in the family and that everyone in this family no matter their age reads….it does not need a parent to be literate in English because reading and writing in one’s native language, sends similar strong literacy messages (p.56).

Essentially, there is no better place for children to begin their literacy journey than at home. In fact, literacy practices available in a given society or family influence in many ways how children will acquire literacy in school (Purcell-Gates, 2000) Parents’ attitude, support, literacy practices and level of involvement with reading activities at home has significant positive influences on reading achievement, performance in literacy, pupils’ interest and attitude towards reading (Paratore, 2005; Paratore, Cassano, & Schickedanz, 2011; Spreadbury, 2002; Tracey & Morrow, 2006). In the words of Flouri and Buchanan (2004), parents can make a great difference through supporting a child’s learning at the earliest years in the home before supporting activities of the school.

Based on the fore going, caregivers remain critical sources for early literacy development. They can inculcate good reading habits making children avid, willing and responsive readers from the first years of life. Precisely, much of what children learn is learnt at home (Spreadbury, 2002; Harris & Goodall, 2007). While much of these statements have been
validated and documented in the developed world, little is still known on the influence of home and family environment in developing countries. As such, one concern of the present study was to examine the mechanisms through which homes influence development of reading and writing abilities of 3-4 year olds in Kakamega Central, Kenya. Parent’s demographic characteristics as one of factors identified to result into this variability has been discussed below

2.5.1 Home Literacy Environment as a Predictor of Early Reading Development

The impact of HLE in nurturing academic skills of young children has been acknowledged in many cultures. (National Research Council, 2003; Niklas, Frank, Schneider & Welfagary, 2003). Home setups provide developmentally appropriate settings, materials, experiences and social support that encourage early forms of reading and writing to flourish and develop into conventional literacy (Harris & Goodall, 2007). Such rudimentary features of literacy have strong links to early literacy skills and in some cases, with later elementary-grade reading achievement.

One study that demonstrated this link is a Multi-Country study of Western nations whose analysis found no significant influence of the home and community environment on reading achievement in the classroom (Mullis et al., 2007), but confirmed immense influence of literacy environment outside school on children’s learning, particularly in the early grades. Abouchaar, (2003, p 2) succinctly state, “Parents are a child’s first teachers, and families are their first and most enduring school with a life time impact” Separately, Morrow (2004) supports this in a statement:
Parents are the first teachers that children have, and they are the teachers that children have for the longest time. Parents or other caregivers are potentially the most important people in the education of their children. Research supports a strong link between the home environment and children’s acquisition of school-based literacy. (pp 6-7)

More and more literacy promotion reports provide substantive evidence that the process of assisting children in acquiring school readiness skills begins early in life and includes the family and other primary caregivers (Dodici, Draper & Peterson, 2003). Parents who are cognizant of their role in child’s learning and are informed about best practices can become proactive in taking the early steps that provide children with ‘a smart start’ in schooling. According to Campbell, Ramey, Pungello, Sparling and Miller (2002), children who are routinely read to, immersed in rich book talk and related activities, thrive while those children with less exposure to books face tougher learning challenges in school and beyond (Campbell et al 2002; Dickinson, McCabe, & Essex, 2006; Neuman & Celano, 2006). As advised by the Executive Director of Reach Out and Read, a program that promotes early literacy and school readiness:

Providing children strong literacy education in the early years lead to better outcomes later on …. the brain develops faster than any other time between the ages of zero and three. Because of this, it’s important to foster literacy during the early stages of life. If children are not stimulated, if they’re not read to, if they’re not engaged, if they’re not asked questions, their brains actually atrophy. There’s real opportunity in providing parents with books and encouragement to read to their children regularly, sing with their children, and engage their children in conversation—all of which prepares our next generation to be incredibly successful in school (National Early Literacy Panel Report, 2008 p.11).

Bus et al., (1995) equally published on the value of early reading to or with the child. Results showed that parents and other primary caregivers, who interact with children during the early years of life, become integral contributors to children’s initial experiences with the
development of literacy skills (Whaley & Egeland, 2004; Hart & Risley, 1995) Importantly, this study observed that from birth, infants are already emulating parental behaviors and follow functions of conversations, writing and reading as displayed by caregivers. However, such interactions were found to be influenced by a couple of other individual parent or family demographic characteristics.

2.5.1.1 Parental Demographic Characteristics and Early Literacy Development

There is a decade of empirical evidence confirming a collection of SES factors that predict children’s literacy achievement. These are: poverty and family economic success (Duncan & Brooks-Gunn, 2000; Nord, Lennon, Liu & Chandler, 2000), ethnicity or gender (Chatterji, 2006), mothers’ levels of education, family violence and criminal behavior, social support, depression, and mastery of parental skills (McCarty & Franze 2005; Pianta, 2004), parent-child relationship (National Institute for Literacy, 1998; Foster, Lambert & Abbott-Shim, 2005) as well as lack of literacy skills and financial resources (Bohrer, 2005). These factors have dominated literature as aspects thought to be highly linked to children’s literacy development.

Specifically, low income, social risk factors and home learning variables (McCarty & Franze, 2005 and Forum on Child and Family Statistics, 2004) have consistently recorded the strongest relationship ranging from 43% to 60% with low literacy. Indeed, Liu and Chandler’s study (2000) confirmed that children coming from families with a lower socio-economic status are likely to lag behind in cognitive and educational performance. This is observed to occur as early as kindergarten. This study also found out level of education and
type of occupation of the parents to correlate significantly with the level of literacy achievement of their children. As such, the current investigation identified parental income and level of educational attainment as potential variables worth investigating.

A multicultural investigation (Mullis et al., 2007) which recorded significant gaps between American children’s literacy achievement and their Caucasian counterparts also illuminated other important demographic factors. From the analysis, the variance on literacy achievement among children pointed towards poverty. This means ethnicity or gender had no notable impact (Chatterji, 2006). A separate investigation dubbed ‘Early Child Care and Youth Development’ (SECCYD) conducted by Burchinal and Forestieri, (2010) discovered that parenting practice is a better predictor of language and reading skills from age 2-13 years. Most importantly, this association did not vary with regards to income and ethnic orientation. This way, the present study believes there are more important variables of concern other than SES.

Elsewhere, studies have demonstrated an alarming likelihood of children from low-income homes and ethnic minorities to read at much lower reading levels than their peers (Bingham, 2007; Bracken & Fischel, 2008). In Kenya, a study conducted by Arasa, (2004) that involved identification of class three pupils reading ability within slums in Nairobi also found similar results. Children from lower socioeconomic communities were noted to be lagging behind their counterparts in vocabulary and literacy skills. Scholars attribute this partly to less responsive and sophisticated adult communication (Hoff, 2006), less time being in reading
storybooks or hearing new stories in the early years (Raikes et al 2006), lack of exposure to books and lack of literacy skills among parents (Arasa, 2004, Abouchaar, 2003).

More scholars have attempted to isolate SES factors and examine their exact influence on children’s literacy skills (Britto, Brooks- Gunn & Griffins 2006; Hart & Risley, 1995). This is after noting stark disparities in parent-child language use, literacy supports and relational aspects between low and higher-income families (Neuman, 2006). One that stands out in literature is low income. Low income generated stressors were noted to affect parental involvement and responsiveness. As a matter of fact, the resultant effects of poverty lead to inattentiveness in children’s educational endeavors and impaired relationships, all of which contribute negatively to a child’s language development (Neuman, (2006). In broad sense, poverty carries with it a range of stressors that ultimately have deleterious effects on children learning ranging from depressed mood, social isolation, diminished feelings of personal efficacy and trauma caused by violence (Farver, Xu, Eppe & Lonigan, 2006; Feinstein, 2003). Such emotional situations not only sap energy, focus and hope of parents, but at the same time, reduces parents’ ability to provide attention or encouragement that young children require for literacy development at the early life stages.

For the present study, Parental Demographic Characteristics such as parental age, gender, income and educational qualification which are consistently quoted in literature as mediators to the early literacy development process were considered. Much focus was given to three other factors in the HLE, that are facilitated by Parental Demographic Characteristics namely: Parent’s Literacy Belief System, Parent Child Literacy Practices and Home
Literacy Resources as key explanatory variables with greater impact. As such, significant variability in literacy development among children in Kakamega County with regards to SES was controlled by drawing study participants across three locations that is three varying socio economic groups (rural, peri-urban and urban) in Kakamega Central Sub-county in Kenya. This made it possible to make a comparison among the three sub populations, with regards to Parents Literacy Beliefs (PLBs), Parent Child Literacy Practices (PCLPs), Home Literacy Resources (HLRs) and children’s early literacy outcomes.

Critical analyses of HLE indicators and their link with reading development has captured attention of a handful of investigations in Kenya over the last decade. Separately, Arasa’s (2004); Mwoma’s (2010) and Wambiri’s (2007) reports involving children from urban poor, rural and peri-urban populations respectively, expressed that academic level, parental occupation, type of preschool as well as beliefs parents hold about early literacy and schooling, affect their ability to support their own children’s academic achievement. Specifically, Mwoma (2010) found that fathers’ who supported children, often made visits to preschools, showed great interest in their children’s learning and had children who were motivated to learn. Similarly, Wambiri (2007) and Arasa (2004) indicated that parents who held positive affirmative beliefs about their role and that of home as a primary learning context had children who performed better in school readiness skills. In agreement, scholars (Park, 2010; Foorman, Anthony, Seals & Mouzaki, 2002), demonstrated that a child’s language literacy accounted for by SES factors (for example income, occupation, education level of parents) ranged from about 31 percent to 40 percent and showed significant relationship with school readiness skills (Farver et al., 2006). In sum, SES factors were
identified as powerful predictors in children’s growth in reading and overall academic success in school (Weigel, et al., 2007; NELP, 2008; Mullis et al., 2012; Makin & Spedding 2001; Wambiri 2007).

Despite such wide recognition, other scholars (Payne et al., 1994 & Snow et al., 1998) best think of SES factors as marker variables than process variables. As a marker variable, SES functions as a proxy for processes that are transmitted via SES. Snow et al., (1998, p 73), argues in a statement “SES effects are strongest when it is used to indicate the status of a school or a community or a school district, not the status of individuals”. In support, some converging evidence (for example Flouri & Buchanan, 2004) illuminate that SES does not itself contribute most directly to reading outcomes, but rather, other characteristics of the family context (for example expectations, conversations in the home, availability of materials and resources) are more explanatory. Essentially, parental involvement is increasingly acknowledged as a more powerful force for academic success than other family background variables, such as social class, family size and level of parental education (Flouri & Buchanan, 2004; Fan & Chen, 2001). In particular, Auerbach, (1982, p 17) sums this in a powerful statement; ‘…the context provided by parents and their consistent support might be more important than any transfer of skills (for their children’s literacy development)’

Consistent with this argument is a strand of literature explaining that some aspects of the home environment are potentially more important than others in promoting reading-related outcomes (Dodici, Draper, & Peterson, 2003). Cases in point are studies conducted by
Hannon, (1998) and Harris and Goodall, (2007) which revealed that parent-child joint storybook reading in samples of working-class families was equally limited. This deficit was linked to lack of time and ignorance of parents about their role as primary educators, a situation which placed working-class children at a disadvantage. More evidence emanates from Arasa, (2004) Wambiri, (2007) and Hood, Conlon and Andrews (2008) who observed that although parent education, occupation, and income are related to children’s reading outcomes, the actual characteristics of the atmosphere that is created by the parents, may be much more important. As put by Flouri and Buchanan (2004), parental involvement in child’s literacy practice is a more powerful force than other family background variables, such as social class, family size and level of parental education.

Research on The Effective Provision of Pre-School Education (EPPE) study in England iterates the fundamental role of parents as children’s first and most important teachers. Results of this investigation revealed that all children of a high-quality HLE, where parents actively engaged in activities with children and encouraged their intellectual and social development, scored well in literacy as well as in other developmental outcomes. Essentially, such practices were found to be more important than parents’ social class and their levels of education (OECD, 2002). Perhaps, this is best expressed in the Evidence of the House of Commons Select Committee on Education and Employment, First Report, (2000):

Mother’s educational qualification is what the mother does with the child. Education matters…but if the mother reads to the child, plays rhyming games, sings songs, talks about letters and sounds, and takes the child to the library, these behaviors at home are more important (p.g.108)
The other disputed SES variable is racial and ethnicity. In a sample of Mexican American families, Laosa (1982) found that although mothers who were more educated read to their children more often than mothers with less education. As such, ethnic differences in parent-child reading practices was non-significant. Coelho (1998) spices this further in a statement:

“…. even if parents are not able to read to their children, they can just listen to their children reading to them, tell stories, engage in discussion and ask questions that encourage children ….as long as the parent shows interest in what the learner is doing, the learners’ interest in reading and school activities also improves” (p.98)

Van Wyk and Lemmer (2009) in support states: 
‘Parents must show that they believe in their children and show them that they are important, loved and capable … it does not necessarily matter what language is used for this discussion, as long as it is one that the parent and child can use to communicate effectively with each other’ (p.65)

Similarly, Neuman and Dickinson (2006), strongly affirm that parents’ effort to promote children’s language and literacy can make a considerable difference in children’s development and prepare them for the demands of school. According to the duo, parents can still assist their children by listening and encouraging them to read, regardless of their SES or educational level. Penly (2004: 98) demonstrates this in a statement: “Most parents, regardless of economic status, educational level or cultural background care deeply about their children’s education and can provide substantial support if given specific opportunities and knowledge”.

Over the years, scholars (Dickinson & Tabor, 1991; Snow et al., 1998; Purcell-Gates, 2001) have established that availability of literacy materials at home, family beliefs in literacy as well as exposure to literacy modeling by adults, positively relate to the child’s literacy development. In particular, Snow et al.’s study (1998) on ‘Preventing Reading
Difficulties” found out that children whose parents had a history of reading problems were at risk of reading failure as they did not receive enough support.

Likewise, Baker’s (2003) and Sénéchal and LeFevre’s (2002) investigations on the role of parents in motivating struggling readers and parental involvement in the development of children’s reading skills respectively, pointed out that parental involvement in children’s literacy activities and their own interest in reading related activities are important factors. Interestingly, the later concurred with Heath, (1983) who noted that many parents are still unaware that the non-assistance to their children to obtain important pre-literacy experiences constitutes a handicap for their children in the long term.

In an investigation on reading motivation, Mullis, Martin, Kennedy and Flaherty (2002) found that an inviting home environment and positive attitudes towards reading are crucial for literacy development and affect the way a child learns in school and beyond. An inviting home environment in this context is one in which parents tell stories and read aloud to their children as often as possible, participate in their children’s reading and speak with children about what they read. Simply, it is a place where parents help their children to recognize that books secure, lighten and beautify lives. To Cramer and colleague (1994), children’s interest and attitudes are affected by two major factors, that is; the climate in the home (carries explicit and implicit messages about the value of reading) and a child’s own competence in reading. Fortunately, the two environmental factors can readily be altered or manipulated through provision of reading materials in the home, regular home literacy events, warm
parent-child literacy interactions and positive attitudes towards children’s literacy development (Cramer & Castle, 1994).

Morrow, (1997) share the same perspective but brings in other correlates that is, quality of the HLE, and child’s attitude to literacy, background experience or home life, parental and social influences. On one hand, Bettelheim and Zelan (1982) extends it to include parent’s conviction and attitude but maintain that parents have to acknowledge that they are their children’s prime educators with immediate effect and lifetime impact on literacy development. The scholars advise parents to be willing to spend some of their time, resources and energy in nurturing their children’s growth in literacy. Succinctly, Bettelheim and colleagues capture this in a statement;” ...parents from all walks of life, all economic and educational levels can help create family cultures that encourage their children to become actively literate adults and lifelong readers” (p.89).

Using a structural path model, Weigel et al., (2006), involved 85 parents and their children, in a USA study which investigated the connection of multiple components of the HLE that is: parental demographics, parent reading beliefs, parent-child literacy and language activities, with preschool-age children’s emerging literacy skills. Results of the structural path model indicated that (i) parental literacy habits were positively associated with parental reading beliefs, (ii) parental reading beliefs were positively associated with parent-child literacy activities in the home, and (iii) parent-child literacy activities were positively associated with children’s print knowledge and reading interest. Parental demographic characteristics such as education attainment also indicated a positive bearing on children’s
expressive and receptive language skills. The results of this study demonstrated that HLE indicators were linked to different domains of preschool-aged children’s literacy abilities. Even though, the study sample population was comparable to the current study, the context differed markedly hence the need to replicate such a study in Kenya as none has been documented especially in Kakamega County.

Anecdotal evidence exists in Kenya and in the region (Ngorosho 2011; Kaunda, 2013; Kwiriza, 2000; Wambiri 2007) on the relevance of HLE and other than SES factors on preschool children’s early literacy development (for example, parent-child print interaction, quality and frequency of literacy interactions and so on). One specific study carried out by Wambiri (2007) on Factors Contributing to Caregivers Behavior with Print and Children’s Emergence Reading Development in Thika District Kenya, revealed that children regularly exposed to print had better ELSs. As such, the current study focused on what parents do or provide to their children. Perhaps what can be altered or manipulated to minimize risks of reading failure in children. Therefore, Parent Child Literacy Activities (PCLAs), Home Literacy Resources (HERs) and Parental Literacy Beliefs (PLBs) were identified as unique predictors of ELS rather than measures of SES as described in the subsequent section.

2.5.1.2. Parental Literacy Beliefs and Early Literacy Development

Parental Literacy Beliefs (PLBs) is one dimension which has received sufficient attention of researchers over the last decade as a pathway to children’s literacy opportunities (DeBaryshe, 1995; Perry, Kay & Brown, 2008; Burgess, Hecht & Lonigan, 2002). Beliefs, broadly conceived as attitudes, knowledge, goals and values, are thought to shape and
mediate adults’ behavior or children’s development. According to Drummond & Stipek, (2004), parents who strongly value being involved in their children’s learning or express positive beliefs about literacy and reading, engage their children more regularly in literacy activities (Weigel et al 2007) such as games, nursery rhymes, songs, conversations, library visits and shared reading and writing (Landry, Swank, Smith, Assel & Gunnewig 2006).

A study by Chansa- Kabali (2004) conducted in Lusaka, Zambia, sought to examine how HLE influence the development of early reading skills among primary school pupils. The key variable was parental reading attitude. The study found that parental attitude produced a significant variation on children’s early reading skills. Parents who favorably ascribed to reading as an important activity in the home had children with better early reading scores. Seemingly, such affirmative parental views and positive outlook was often translated into action which eventually impacted on children’s early reading scores (Chansa- Kabali 2004).

DeBaryshe (1995) examined 60 low-income families and 56 working-class families’ maternal beliefs about reading aloud to their children. She hypothesized that maternal beliefs stem from class backgrounds (SES), from literacy skills and from personal interest in reading. DeBaryshe found that parental literacy habits and abilities as well as parental socioeconomic status, were positively associated with PLBs. Education, income, and the mother’s self-reading habits predicted maternal beliefs about reading aloud. Mothers who held beliefs consistent with emergent literacy model provided their children with broader and more frequent joint reading experiences. They also engaged in more discussions with their children when reading aloud. From this results, DeBaryshe concluded that, even
though parental beliefs were correlated to SES status, they are a separate factor that plays a key role in the home reading experience. As such for this study selected family background variables (for example income and educational qualification) as well as Parental Literacy Beliefs were accorded prominent focus.

Van Steensel (2006) examined the relationship between HLE and literacy development in children, using a sample of children from different SES and ethnic-cultural backgrounds. The sample consisted of 48 native Dutch families and 68 ethnic minority families. Two types of data were collected; (a) data on the children’s home literacy environment collected through a parental questionnaire and (b) data on children’s literacy development from kindergarten through second grade collected by standardized school tests and teacher observations (Van Steensel, 2006). The measure of home literacy environment included individual literacy activities of each family member (including siblings) and joint literacy activities involving the child such as shared book reading, storytelling, library visits, watching literacy-focused television programs, singing/rhyming and shared writing activities. Van Steensel (2006) found an association between the HLE and SES. Although considerable variability in the HLE existed within the low SES groups, a majority of children from high SES families had the most stimulating HLE. Importantly, HLE profiles were found to be related to literacy outcomes in kindergarten through second grade. In other words, rich HLE produced positive effect on children’s vocabulary scores in first grade and on their general reading comprehension both in first and second grade.
On further investigation, DeBaryshe (1995) established that parents with a positive outlook: initiated unique types of activities, provided warm joint attention, modeled new verbal forms, frequently asked questions or/and encouraged contingent feedback as well as shared conversations. Such asset-based activities were found to account for as much as 27% of children’s receptive and expressive vocabulary development (Purcell-Gates 2000). Subsequent studies (Bingham 2007; Haney and Hill 2004) are in agreement that parents hold divergent views about their role in children’s literacy development and that this is reflected in their reading behavior and habits. Those with strong affirmative beliefs on the value of literacy, read more frequently affirmed positively on their role as prime educators of their children and, have children with better reading scores. From this analysis, it is true that home literacy practice is a consequence of parental literacy belief.

On yet a similar argument, Weigel et al’s (2006) study on HLE contributions to preschool age ELSs, noted that children’s language skills are much greater when parents value their role but this is sometimes influenced by SES. Weigel and colleagues noted that parental literacy habits, as well as socio-demographic characteristics of the home environment, are reflective of the beliefs and attitudes that parents hold towards children’s literacy and language development. Specifically, socio-demographic characteristics and parental beliefs were found to predict vocabulary development. It implies then that an understanding of parental belief systems is of paramount importance in explaining the variance in reading practices within families, an aspect that the present study sought to shed light on.
DeBaryshe (1995) explored this further using path analyses. The aim was to determine the underlying factors. He found out that mothers with higher education, better economic resources and stronger literacy orientations had more facilitative language belief systems than other mothers. These beliefs, in turn, were strongly related to more parent-child reading experiences and expanded child reading interest. Wambiri (2007) confirmed this in her study on “Factors Contributing to Caregivers with print and Emergent Literacy Development” conducted in Thika District Kenya. This study revealed that a lot of parents (74%) had negative perception about their role in children’s emergent reading development and this influenced their print interactions with children.

Ngugi (2000) concurred with this view in his study conducted among the rural and urban poor populations. Results of the two studies revealed that caregivers did not perceive themselves as having a role to play in stimulating reading development in children. They placed teachers at the highest vantage position in stimulating children’s reading development. Among the major reasons parents put across to hinder their support for reading development were: lack of time, lack of knowledge and skills on how to do this as well as financial constraints (Ngugi, 2000; Wambiri, 2007).

In an expansion of DeBaryshe’s (1995) model, Weigel and colleagues (2006) tested the paths from parental literacy habits and demographics to parental beliefs to parent-child literacy activities and ultimately to preschool-aged children’s language skills. The duo found statistically significant direct paths from parental demographics to parental reading beliefs, beliefs to parent-child activities, activities to print knowledge and, finally to children’s
reading interest. Like DeBaryshe’s study, parental reading beliefs were found to be directly related to receptive vocabulary (Weigel et al., 2006). As such, Weigel et al., (2006:59) sums it up this way: ‘Parents who are serious about their children’s education will provide whatever effort, time and money as necessary resources to ensure that learning is effective’. In addition to being provided with the necessities, the child will also see by the parents’ example that education is important, and will respond to that knowledge with greater interest. Precisely, parental interest in what a child does, praising and encouraging the child when learning gets tough is quite important aspect that keep a child going.

A recent investigation on mothers’ literacy beliefs conducted by the same colleagues (Weigel, et al., 2006) found that mothers who believe they play an active role in building their preschool children’s knowledge created a more literacy-rich home. Children from such homes developed greater interest in reading and had superior print knowledge than children whose mothers believed that schools are primarily responsible for teaching reading. Close to this is the reading for entertainment model. According to Sonnenschein, Baker, Serpell and Schmidt (2000) parents who believe that reading is a source of entertainment had more positive views about reading than do parents who emphasize on the skills aspect of reading development. In essence, beliefs held by children’s parents about the purposes of reading and how children learn to read relate to children’s motivations for reading. As such, one variable of consideration by the current study was views, beliefs, concepts and values parents attach to early literacy as well as their ideas as prime educators of their children.
2.5.1.3 Parent-Child Literacy Practices and Early Literacy Development

Current literacy definitions acknowledge literacy as a cognitive skill, a nested social practice manifested in many different ways (Cairney, 2002; Matthews & Cobb, 2005), influenced through an individual’s actions with, through and about language. The argument here is that; what parents do and not do with their children rather than what they are or have, is more prime. To start with, parents modeling reading behavior, send children the message that reading is an important activity (McGee & Richgels, 2007). In explaining this reading modeling concept Vygotsky (1962), refers us to six principles: (i) learning is often a mutual accomplishment, (ii) children learn through guided participation, (iii) children profit from support of more competent people, (iv) effective instruction is contingent instruction and that, (v) it is not only the interaction itself that matters but also (vi) the quality of the interaction that contributes to better learning.

Here Clay describes literacy development in the context of social, collaborative and cultural learning. This ecological understanding underscores the role of social practices in which children’s interactions with people, objects and symbols affect their skills, capabilities and dispositions towards literacy development. It foregrounds the importance of children having opportunities to engage with caregivers in interesting and meaningful ways as they enjoy support from knowledgeable and trusted adults. Indeed, earlier discussions (Storch & Whitehurst 2001; Weigel et al 2006; Spedding Harkins Makin, & Whiteman, 2007) have demonstrated the potential influence of the parent as a model for literacy activity.
Supporting the above perspectives is the Effective Provision of Pre-School Education (Sylvia, Melhish, Sammon, Siraj-Blatchford & Taggard, 2004), a large-scale longitudinal study that involved 3,000 children from the age of three to age of 10. The report indicates that parents’ involvement in home learning activities makes an important difference to children’s attainment when the influence of other background factors has been taken into account (such as family SES, mothers’ education, income and ethnicity). The EPPE report documented a range of activities associated with positive outcomes at age 3 and 7. These included: playing with letters and numbers, emphasizing the alphabet, reading with the child, teaching songs and nursery rhymes, painting and drawing, and visiting the library. This is well argued by Sylva, Siraj-Blatchford, Melhuish, & Quinn (2001), who maintain that what parents do together with children is what matters. The latter was supported by Makin & Spedding, (2001) who cautioned that researchers should never overlook the situated expertise of parents even when they live in disadvantaged circumstances but rather, support them as first literacy educators This was considered by this study. It did not only focus on SES indicators but also literacy support available within the sampled households.

There is need to focus on literacy-related activities that parents or caregivers engage in with children or support (Gadsden, 2000). Perhaps, the most common, tested and approved being reading aloud. When children are read aloud to or engage in reading text and pictures in books, they learn that printed text conveys meaning and that being able to read is valuable and worthwhile. Other encounters with print (for example writing names or forming letters) do not only help establish children’s awareness of and familiarity with text, but go along the
way in reinforcing young children’s developing awareness of text. For instance, drawings that are connected with stories permit children’s play with books and other print material thereby laying the foundations of reading literacy. Early associations of enjoyment with printed text helps in establishing a positive attitude towards reading that will motivate young readers (Sonnenschein et al., 2000).

Adams’s (1990) extensive review identified reading aloud or interactive storybook reading as the single most important experience for eventual success in reading. It provides maximum learning potential when children have opportunities to actively participate and respond (Morrow & Gambrell, 2001). Obviously, it works best when there are opportunities for scaffolding or support. It means that (i) before-reading activities, caregivers should arouse children’s interest and curiosity in the book about to be read; (ii) during-reading, caregivers should supply prompts that keep children actively engaged with the text being read; and (iii) after-reading questions and activities, caregivers should give children an opportunity to discuss and respond to books that have been read.

Shared reading aids development of word knowledge, understanding of the meaning of print and awareness of written letters and words (Sénéchal LeFevre, Thomas, & Daley, (1998). Accordingly, Adams (1990) estimates that children who are read to approximately 30 minutes each night, will have acquired at least 1,000 hours of print exposure when they begin kindergarten. For Adams, this extensive print exposure is an important prerequisite for children to begin to understand phonemic structure of language and be ready to identify letters. In agreement, Dickinson and Smith (1992) reports that reading aloud to young
children may be one of the most beneficial home learning experiences parents should provide. Early book-reading with opportunities of open-ended questioning and decontextualized talk is predictive of ELSs and strongly associated with later reading performance in the elementary grades and beyond. It contributes to development of oral language, cognitive skills, phonemic awareness skills, story comprehension and print awareness (Bus 2001; Dickinson & Smith, 1992). Separately, Allington and Cunningham (1996) and Hall and Moats, (1999), concur that children, who are read to develop a wide range of topics, become familiar with rich language patterns, learn reading processes by watching how others read alongside developing an understanding of story structure and what written language sounds like. Importantly, the frequency of reading aloud and the nature of the interaction that occurs during joint reading are all important constructs in the process.

Reading aloud promotes positive affective consequences in children’s interest in books and their motivation to engage in independent book-related play (Burns, Griffin, & Snow, 1999). It helps children to associate reading with pleasure and encourages children to seek out opportunities to read on their own. By extension, repeated readings of favorite stories provide an informal opportunity to gradually develop a more elaborate understanding of concepts. By revisiting stories many times, children focus on unique features of a story or text and reinforce previous understandings. Re-reading enables children to read emergently and promote concentration (Sulzby, 1985).

When children participate in literacy activities they often experience more joint attention adult modeling of new verbal forms, frequent questions and contingent feedback for
children’s speech and shared conversations (Purcell-Gates, 2000). Such ventures account for as much as 27% of children’s receptive and expressive vocabulary development (Weigel et al., 2007). This is aptly demonstrated by DeBaryshe, (1995) who reported that the degree to which children learn many concepts skills, attitudes, and behaviors in their homes has been linked to whether they participate in such asset-based activities like book talk, storytelling, shared conversations and guided writing.

As for Sénéchal (2006), specific home literacy experiences like frequency of storybook reading are predictive of specific reading competencies even for Year 4 children. Experiences during story book reading enhance school reading behavior because children’s school literacy experience will always mirror home literacy practices (Pellegrini, 2003; Owocki, 2001). Just to echo sentiments of Hoff, (2003), the source of early differences in most children reside in their experiences with language and literacy in the home. This is why studies continue to show that lack of literacy opportunity among children in lower income or culturally diverse backgrounds predicts early grade reading failure (Hart & Risley, 1995; Harris & Marsh, 2003; Farver et al., 2006). In keeping with assumption, this study examined parent child home literacy practices within the sampled households in Kakamega Central Sub-County. It used the variance in explaining early literacy abilities of 3-4 years old children at preschool entry.
2.5.1.4 **Home Literacy Resources and Early Literacy Development**

According to IRA & NAEYC (1998), all children need to have high quality children’s books as a part of their daily experience, instrumental at story and/or book talk time. Existence of sufficient, relevant and a wide range of literacy resources such as books (pictures, short stories, chapter, rhyming, alphabet), magazines, newspapers and writing tools at home, permits greater opportunities to learn about identifying letters on labels, writing letters and identifying words. As opined by McGee and Richgels, (2007), literacy-rich environments, both at home and at school, are important in promoting literacy and preventing reading difficulties. In broad sense, one of the main characteristic of a literacy-rich home environment is abundant opportunities for daily reading, extended discourse and language play, experimentation with literacy materials, book talk (discussion of characters, action and plot) and dramatic play (Burns et al., 1999; IRA & NAEYC 1998) Undoubtedly, high quality children’s books must be part of this daily experience.

Large scale studies on parenting practices (National Research Council, 2000; NICHD, 2008) validate this position. Young children reared in homes with more stimulating, age-appropriate books and toys show faster acquisition of language skills. Asset based opportunities of this kind were indicated to have a link to literacy competence in the first a thousand days of birth and in elementary school (Zero to Three Journals, 2000). Elsewhere, Campbell et al., (2002) noted that children who are immersed in rich book talk and related activities, thrive while those children with less exposure to books face tougher learning challenges in school and beyond. For this reason, NAEYC, (1998) advises parents to
provide reading spaces for children so that children can go back to favorite books again and again.

The other ‘literacy objects’ found to support learning in the home environment include: audiovisual materials, periodicals and art supplies. The family reading area equally need to be stuffed with magazines, newspapers, encyclopedias, atlases, the Bible, and comic books of appropriate age (NAEYC, 1998). Better still, homes with activities that stimulate children’s thinking (for example computer games) as well puzzles are apt to place children on the right literacy track. Family trips to the public library can also augment the collection with exciting, new titles (Burns et al., 1999). Importantly too, is a space to share stories from cultures and oral traditions. This promotes oral language forms and builds a strong foundation for reading.

2.6 Summary of Literature Review and Identification of Gaps in Literature

Illiteracy has been a worldwide challenge for decades now and, has attracted a number of initiatives (Raising a Reader, Incredible Years programs, Early Authors Program) launched in different parts of the world. The aim is to provide solutions to this phenomenon (NAEP, 2003). Additionally, literacy promotion schemes have been implemented world over. These come in different names for instance the No Child Left Behind (NCLB) in USA, the Good Start, Grow Smart in USA, “Book Start” in the UK, Educate your Child” in Cuba, “Every Czech Reads to Kids” in the Czech Republic, the Turkish Mother-Child program and Grandmother and Child Program in Uganda (NAEP, 2003). Of all the initiatives, the potential of parents and families across varied socio economic status in shaping a child’s
literacy trajectory has been tested and approved. None of such initiatives is documented in Kenya an indication that home is not a priority context for literacy intervention in Kenya.

Underpinning these innovations is the realization that parental involvement in a child’s early literacy development is the most important determinant for reading development, academic and school success, perhaps, having a greater impact than a combination of SES factors that have dominated literature for decades (UNESCO, 2010; Bus et al., 1995). Countless studies continue to affirm that, parents who introduce their children to books early give them a head start in school and an advantage over their peers throughout primary school (Wade & Moore, 2000). Joint literacy practices, availability of literacy resources and positive beliefs of caregivers have been confirmed to have significant positive influences not only on reading achievement, language comprehension, expressive language skills (Gest, Freeman, Domitrovich & Welsh, 2004), but also on pupils’ interest in reading, attitudes towards reading and attentiveness in the classroom. In Kenya, less documentation exists on the influence of Parents Literacy Belief system, Practices and Home Literacy Resources on reading development among preschool children. At the very least none has been published in Kakamega County.

Joint literacy practices and stimulating literacy environment are more powerful forces than other family background variables such as social class, family income, family size and level of parental education (Flouri & Buchanan, 2004; OECD, 2002). Despite the evidence, Kenya’s literacy intervention schemes are still hinged on the ‘leave it to school approach’. Classroom instruction context has been at the heart of literacy intervention with the most
important context- the family environment, largely ignored. Besides, no attempts have been made to account for or assess ELSs of pre-kindergarteners before preschool or primary school entry especially in Kakamega County, yet it is clear that, mainstay concepts and skills are highly predictive of more elaborate and complex literacy skills to be developed in school and beyond.

A surge of literature based on longitudinal, quasi experimental, observational and neuroscience analyses spanning from birth to grade four, validate arguments that literacy deficiencies and gaps that emerge before children become conventional readers are rarely closed in later years. Furthermore, a follow up using independent, longitudinal analyses have reached similar conclusions (McKinsey & Company, 2009; Lonigan et al., 2008) that literacy deficits eventually undermine reading development indirectly through their impact on code-related literacy skills for beginning readers and directly through their impact on reading comprehension in older elementary school children. Even so, little evidence exists in Kakamega and in Kenya generally, with regards to early literacy skills and behaviors of pre-kindergarteners that would enable projecting their literacy trajectory or inform intervention before children successfully begin their education.

Language and literacy, is a lifelong process and context- situated practice which begins at birth with parents as meaningful makers and prime resources in this context (the home). In this primary context, joint literacy activities are recognized as meaningful and asset based experiences that produce profound and long-lasting premiums (Mullis, Mullis & Cornille, 2004). In particular, benefits of parental involvement in early literacy activities extend
beyond the realm of literacy and educational achievement, but rather, spreads out into social and emotional development (Allen & Daly, 2002), learning and performance at school (Fan & Chen, 2001; Feinstein & Symons, 1999), higher academic achievement, greater cognitive competence, greater problem-solving, greater school enjoyment, better school attendance and fewer behavioral problems (Melhuish, Sylva & Sammons, 2001) and continues to improve life chances in teenage hood and adulthood (Desforges & Abouchaar, 2003). Studies such as Jordan, Snow and Porsche, (2000) argue that success in reading is a gateway to success in other academic areas but again this is one subject among the school subjects that has been found to be most sensitive to parental support, more so, in the early years (Sénéchal & LeFevre, 2002). Nevertheless, a lot of literacy intervention programs that are ongoing in Kenya focus on classroom contexts and among school age children. Preschool children have not been enlisted as beneficiaries and the home context has been largely ignored.

Literacy problems go beyond cross racial, linguistic and socioeconomic groups. However, extant literature revealed that children from low SES are found to be more times likely to join formal schools without most of these core skills, putting them at the greatest risk for reading failure in elementary school (Papadopoulos, 2002). Similar conclusions were shared by Arasa’s study (2004) on cognitive correlates to reading among standard three pupils in Kibera slums, an investigation which found out that letter sound knowledge, decoding phonological awareness positively correlate with reading. In essence this implies, that children at greatest risk for reading problems in elementary school are those who start kindergarten with weak language skills, poor abilities to attend to the sounds of language as
opposed to its specific meanings, those with deficient letter recognition skills or /and unfamiliarity with the basic strategies of reading. Arasa’s study dealt with older children but the current study examines early literacy abilities of younger children aged 3-4 years.

Early years are prime times for literacy learning. The home environment and its experiences are considered to be initial and most important building blocks for children’s subsequent language development under tutelage of potent forces such as older peers and siblings and more importantly the parent. Parents can readily improve children’s odds of becoming poor readers by giving them pre-literacy competencies (print knowledge and phonological awareness) that will enable them to profit from formal instruction. Additionally, engagement in literacy activities in the home develops children’s propensity towards a reading culture and becomes primary routes for literacy development. In Kenya, studies have mainly focused on school age children with only a few exceptions on emergent literacy (Wambiri, 2007). The study sought to advance literature in this area and in particular in Kakamega County where no such studies have been documented.

Recent literacy studies have reported diverging views about what actually predicts parental involvement in preschool children development. While some studies hold that beliefs, availability of time and other resources are of critical importance Mwoma’s investigation (2010) on paternal involvement and its effects on preschool children’s education outcomes in Gucha District revealed that this is highly depended on fathers’ academic level, occupation and the type of preschool the child attended. Surprisingly, Arasa (2004) found that educational level is not actually the best determinant when her study revealed that even
the educated parents did not support their children at home and in school. This study sought to determine the exact explanatory demographic characteristics of caregivers, facilitative and predictor variables that have long lasting effect on early literacy development a
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter describes design and methodology employed. It opens up by a detailed presentation of the Mixed Method Research (MMR) adopted for this study and offers justification for its adoption. In addition, a summary of gains derived from the two dominant paradigms with specific reference to the present study is provided. Two specific designs: correlation and cross sectional survey design and their place in the present study explained. It provides information about the variables and indicators of focus, the study location, target population and their relevance. What follows is a description of the target population sampling techniques, sample size along with its justification. It then presents a detailed description of research tools, strategies of ensuring tools’ validity and reliability as well as the procedure for administration. The chapter goes ahead to spell out data collection procedures, methods of analysis and presentation. It sums up by a highlight on logical and ethical considerations. The subsection below discusses the design and methodology employed in attempting to answer the research questions.

3.1 Research Design

This study adopted a Mixed Method Research (MMR), also referred to as Multi Method Approach. As supported by Green, Judith, Camilli, Elmore, Patricia (2006) it is impossible for any single approach to adequately address a research problem. Michael (2002, p 34) adds that:
The usage of numbers and description of words are mutually complementary and the strength of both can produce a research synergy in which the whole collective benefits are greater than what is obtained from either designs alone” This is to say, when both qualitative and quantitative designs are used in the same study, the strengths are maximized and the weaknesses minimized.

This complementary approach provided priority and equal weighting to both quantitative and qualitative paradigms in all the phases of the study (Creswell, 2004; 2008; ACET, Inc., 2013). The current study envisaged an understanding of the complexity of literacy development and multiplex factors that influence early literacy development of 3-4 year olds in Kakamega County. For instance, it was instrumental in explaining parents’ perceptions, beliefs and literacy practices as well as unearthing the values parents placed on early literacy as a prerequisite for reading development and role of home context Over and above, it promoted a strong research synergy and enabled data cross-validation and triangulation for robustness and credibility. MMR was considered ideal for this study as it did not only enable data to be collected simultaneously, reducing time and resources required, but also provided an understanding of the complexity of early literacy development.

Quantitative and qualitative approaches as explained by Creswell (2004) are more than simple differences between research strategies and data collection procedures. Rather, they represent different epistemological frameworks for analyzing the nature of knowing, social reality and procedures for grasping a phenomenon under investigation. Best and Kahn (1993, p 13) describes this dichotomy by stating that quantitative research deals with numbers, use of statistical models to explain data while qualitative research deals with
interpreting social realities through meanings, concepts, definitions and descriptions of social phenomenon or events.

In the qualitative realm, cross-sectional survey design was adopted. Its use enabled soliciting sufficient information from a wide range of participants (3-4-year-old children, parents and teachers) at one point in time and within the natural setting. Equally, it enabled sharing in the understanding, views and perceptions of participants on the mechanisms through which home literacy environment influences development of early literacy abilities of 3-4 year olds.

On the quantitative front, correlation design was adopted in attempting to discover relationships, between the designated variables. Correlation research is defined by Gall, Borg and Gall (2007, p 56) as “a type of investigation that seeks to discover the direction and magnitude of the relationship among variables through the use of correlation statistics”. It thus generated scores of the study variables simply by determining their measure and relationships without manipulations or proving causality. Three to four year olds were tested in various aspects of literacy development (usually referred to as reading readiness) and their achievement levels are then correlated with particular home background characteristics.
3.2 Location of the Study

This study was conducted in Kakamega Central Sub-Country in Kakamega County Western Kenya (Appendix X). Kakamega County, has a land mass area of 3050.3 sq. Km a GDP of 4.6% and poverty index of 4.65. The population is multiethnic and all religious groups in Kenya are represented (Kenya National Demographic Survey, 2015)

Based on the recent Reading Assessment Reports (USAID, 2010; Uwezo, 2010:2011:2012, KNEC, 2010) early graders have persistently recorded low basic literacy skills in Kenya. An in-depth inter-county comparison shows significant variance among the 47 counties in Kenya. For instance, the report by Uwezo (2012), published Kakamega County as one of the worst performing counties in early grade literacy. Only 20% of class three children in Kakamega County can read a class two story (Uwezo, 2012; KNEC, 2010).

Kakamega Central Sub-County, was identified for this study leaving out eleven other sub-counties. It was found to be the best choice as it largely encompasses a variety of social economic classes as opposed to where we would get rural pure or urban pure population. Its wide geographical and diverse economic coverage was quite pertinent to this study which sought to establish variations in early literacy abilities of 3-4 year olds who were newly enrolled in the urban, peri-urban and rural preschools in Kakamega Central Sub-County. Its two educational divisions namely: Municipality and Lurambi, represents rural, urban and peri urban populations which were crucial in achieving the study objectives.
3.3 Target Population

The study participants were drawn from 85 privately sponsored and 62 public owned preschools located within the rural, peri-urban and urban centers of Kakamega Central Sub County, Kenya. Only preschools that offered opportunities for 3-4 years olds otherwise known as nurseries, baby class or beginning classes were targeted. The population of interest to this study was 3-4 year olds with first preschool experience, their parents or guardians as well as teachers that handled these children.

3.4 Sampling Techniques and Sample Size

The subsequent subsections present the sampling procedures and techniques that were employed in selecting the study respondents.

3.4.1 Sampling Techniques

In order to accurately capture all the nuances peculiar to this study and to provide enriching data from such diverse geographical and SES composition, both probability and non-probability sampling techniques were adopted. Judgmental sampling technique was adopted in picking the study area that is, Kakamega Central Sub County. Despite its proximity to the county headquarters and its cosmopolitan nature, it was one of the sub-counties in Kakamega County which posted the lowest (12 points below the National Early Grade Literacy Assessment) early grade reading outcomes (Uwezo, 2011: 2012).
Stratified random sampling procedure was employed to draw sample respondents from each stratum after obtaining a list of all preschools from Kakamega Central Education Offices. As opined by Mugenda, (2008), this technique is ideal when dealing with study populations that are not uniform. Kakamega Central Sub County consists of private and public owned preschool centers scattered in three different locations that is urban, peri-urban and rural. (Kakamega Central Sub-County Education Records, 2015)

Preschools that offered opportunities for 3-4 years olds were first categorized into two main divisions: public attached- 62 and privately owned -85. An elaborate stratification placed preschools into geographical locations: urban, peri-urban and rural. Consequently, 24 preschools (12 privately-owned and 12 public- attached) representing 16.33 per cent were randomly selected to participate in the study (Table 1). The preschool names were arranged following alphabetical sequence and randomly selected. This was based on argument by Kombo (2006) that 10 -30 % sample is sufficient for social science research. The goal of stratified random sampling was to achieve desired representation from various sub- groups in the population specifically based on diverse socioeconomic background. Another major advantage of this technique was that it ensured inclusion of sub-groups which otherwise would have been omitted entirely by other sampling methods because of their small numbers in the population (Mugenda, 2008).

Purposive sampling method which is a non-probability sampling technique was used to ensure selection of groups of participants with relevant, reasonable and reliable information or simply as Kombo, (2006, p 36), explains, “…. respondents judged to be rich in the
required information and knowledge of the study”. Patten, (1990) agrees with the two scholars that purposive sampling is useful where there is a need to limit the sample cases that are likely to be “information rich” with respect to nature and purpose of the study. So even when this sampling approach has been criticized for its inability to produce generalizable data, it was found relevant to this study. Nevertheless, the study strived to improve its weaknesses by randomization of study samples (Gall et al., 1996).

First, 3-4-year-old children without prior preschool experience were purposively identified and then randomly selected to give each a chance of inclusion in the study. This approach ensured that those who had repeated or had enrolled elsewhere were left out. Parents or guardians described as potent forces in children’s early literacy development (Britto & Brooks, 2001; Britto et al., 2006; Hammer et al., 2005: 2006; Robert et al., 2005) were included by the virtue of their children’s participation in the study. Preschool class teachers handling beginners were also purposively selected. This technique was deemed appropriate since it helped in keeping sample size at minimum taking cognizance the nature of the study.

3.4.2 Sample Size

Kakamega Central Sub County had 147 preschools, 85 privately sponsored and 62 public owned. From this, preschools were first categorized as rural urban and peri-urban population then sampled using stratified sampling techniques. Eight preschools were picked at random from each location giving a total of 24 preschools that is, 12 public attached and 12 privately owned. Simple random sampling technique was also applied in picking three children (3-4
year olds) from each school. This was done after creating a list of learners from the register. This gave a total of 72 children whose early literacy skills were estimated. One parent or guardian (each of the sampled -child) as well as the child’s preschool class teacher were picked by virtue of their children participating in the study, yielding to a total sample size of 168 respondents. Table 1 provides this summary.

<table>
<thead>
<tr>
<th>Categories of Population</th>
<th>Population (N)</th>
<th>Number of Respondents Sample (n)</th>
<th>Percentage (%)</th>
<th>Sampling Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preschools</td>
<td>147</td>
<td>24</td>
<td>16.33</td>
<td>Purposive and Stratified random sampling</td>
</tr>
<tr>
<td>Preschool children</td>
<td>2940</td>
<td>72</td>
<td>2.44</td>
<td>Purposive and Stratified random sampling</td>
</tr>
<tr>
<td>Parents or Guardians</td>
<td>2940</td>
<td>72</td>
<td>2.44</td>
<td>Purposive and Stratified random sampling</td>
</tr>
<tr>
<td>Preschool teachers</td>
<td>156</td>
<td>24</td>
<td>15.39</td>
<td>Purposive and Stratified random sampling</td>
</tr>
</tbody>
</table>

(Source: Kakamega Central Sub-County Education Records, 2015)

3.5 Variables

The independent and dependent variables of this study are as described in the subsequent sections.

3.5.1 Dependent Variable

This is the variable that changes as a result of an experimental manipulation of the independent variable (Kombo, 2006). It depends on other factors that are measured and
sometimes referred to as, the presumed effect. For this study, the dependent variable was Early Literacy Ability. This was estimated with a focus on the six domain elements namely: Vocabulary, Alphabetic Knowledge (AK), Print Knowledge (PK), Phonemic Awareness (PA), Print Motivation (PM) and Early Writing (EW). Based on 23- item-DIBELS tool (Appendix VII) comprising of statements presented on a 4-point likert scale: Not at all = 1, Not very well = 2, moderately well = 3, and Very well = 4, the researcher checked (√) each of the statements showing the extent to which they agreed that the child demonstrated a certain level of skill development in the specific domain. Very well indicated above average response score of greater than 3 through 4, in which, moderately well indicated an average of greater than 2 through 3, not very well indicated an average of 1 through 2 Not at all indicated an average of 1 to less (Mullis, 2003).

3.5.2 Independent Variables

Independent variables on the other hand, are those that cause change in the dependent variable or rather, conditions that are manipulated or sometimes under the control of the researcher to measure their effect on the dependent variables (Kombo, 2006). They are stable and unaffected by the other variables of measure and sometimes referred to as, the presumed cause. The independent variable, that is, Home literacy Environment (HLE) was determined in relation to three indicators namely Parent Literacy Beliefs (PLBs), Parents-Child Literacy Practices (PCLPs) and Home Literacy Resources (HLRs). Parent Literacy Beliefs was examined on a scale (5-point) showing the extent of agreement or disagreement whereas Parent Child Literacy Activities were analyzed in terms of types and frequency. Lastly the Home Literacy /Educational Resources were determined in terms of availability,
quantity and accessibility to the child. This is discussed in detail in the subsequent themes (pp. 128-130)

3.6 Research Instruments

The study was structured to collect both primary and secondary data. Thus a critical review was first conducted to help identify the most appropriate instruments for this research. This is because language and literacy literature authors suggest particular methodological concerns that must be accounted for during data collection. In regard to this investigation, there was need to thoroughly capture different perspectives of the phenomenon and explain nuances that may inform sustainable policies. As Creswell and Plano (2004), recommends, methodological triangulation was adopted. Four research instruments were designed and used to collect primary data namely: a semi structured questionnaire, Home Educational Resource Measure or checklist (HER), an adapted tool, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and Focused Group Discussion guide. Secondary data was obtained through content analysis. The researcher also reviewed children’s writing samples to document children’s emergent writing development. A summary of the research instruments used and the purpose each served is presented in Table 2.
### Table 2. Summary of Research Instruments

<table>
<thead>
<tr>
<th>Research question</th>
<th>Research Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent does Parents’ Demographic Characteristics predict Early Literacy abilities of 3-4 old children in Kakamega Central Sub-county, Kenya?</td>
<td>PPLL Questionnaire</td>
</tr>
<tr>
<td></td>
<td>FDG guides</td>
</tr>
<tr>
<td></td>
<td>DIBELS</td>
</tr>
<tr>
<td>What is the relationship between Parents Literacy Beliefs (PLBs) and early literacy abilities of 3-4 year old children in Kakamega Central Sub County, Kenya?</td>
<td>PPLL Questionnaire</td>
</tr>
<tr>
<td></td>
<td>FDG Guides</td>
</tr>
<tr>
<td></td>
<td>DIBELS</td>
</tr>
<tr>
<td>What is the influence of Parent Child Literacy Practices and on Early literacy skills of 3-4-year-old children in Kakamega Central Sub County, Kenya?</td>
<td>PPLL Questionnaire</td>
</tr>
<tr>
<td></td>
<td>FDG Guides</td>
</tr>
<tr>
<td></td>
<td>DIBELS</td>
</tr>
<tr>
<td>Is there any relationship between Home Literacy Resources (HLR) and early literacy abilities of 3-4 year old children in Kakamega Central Sub County, Kenya?</td>
<td>HER Checklist</td>
</tr>
<tr>
<td></td>
<td>PPLL Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Questionnaire</td>
</tr>
<tr>
<td></td>
<td>FGD Guides</td>
</tr>
<tr>
<td></td>
<td>DIBELS</td>
</tr>
</tbody>
</table>

Details of the design and administration of each instrument are discussed below.

#### 3.6.1 Perception of Literacy Learning Questionnaire for Parents / Guardians

The questionnaire (Appendix IV) was designed to solicit data from parents/guardians. Firstly, the introductory part introduced the researcher, research topic and mentioned basic ethical rights of the respondent. It was considered a suitable tool in collecting data from a wide cross-section of participants on a wide range of variables. Specifically, it explored: parents’ own literacy beliefs, what literacy practices and objects they considered effective in enhancing children’s literacy, their views on the role of ELSs in reading development, role definition as the prime educators and HLE as the first literacy resource for literacy.
development. This four-part, semi-structured tool was administered to parents of 3-4 year olds.

**The First part** gathered data on demographic information of the family. These included gender, level of education, monthly average income, occupation, number of children and so on. The general and demographic variables were used to predict early literacy outcomes of 3-4 year olds.

**Part Two** explored parents’ early literacy beliefs, values, ideas, dispositions and expectations about their roles as their children’s primary educators, home as the first literacy resource and the value of early literacy skills in reading development. The responses to the closed-ended questions were recorded on a 5-point Likert-Scale ranging from strongly agree (1) to strongly disagree (5). It was scored as follows 5 = Strongly Agree, 4 = Agree, 3 = Undecided, 2 = Disagree and 1 = Strongly Disagree. The respondents were required to check (√) one of the responses depending on the extent of their agreement or disagreement with the provided statements.

The Likert scale was chosen because it is a quick way of obtaining and comparing views and opinions of individuals about a given construct (Creswell & Plano, 2004). In this particular case, it rated parents’ perception or extent of their agreement with statements based on their own role definition as the first primary educator and the home environment as the first literacy resource for a child’s literacy development. 5-point Likert items were deemed efficient in providing sufficient variability for data comparison. The provision of a
neutral mid-point is useful in such opinion-based questions to cater for respondents who are not decided and therefore cut down on non-response rates to the individual questions.

**Part Three** provided parents’ rating on nature of Parent Child Literacy Practices (PCLAs) common in their households. Frequency with which parents engaged in own or joint literacy practices as well as their belief on the effectiveness of selected home literacy resources in enhancing literacy abilities of 3 – 4 year olds were also rated on a four point likert scale. This was gauged in terms of the frequency of engagement indexed along continuum that is, frequently (practiced on regular basis), occasionally (practiced sometimes) and seldom (usually not practiced). It was based on 10 literacy activities. The views on effectiveness of literacy resources were keyed as very effective (VE), moderately effective (ME), less effective (LE) and not effective (NE). The frequency with which they engaged individually or with the child in selected literacy practices was rated 4 = Always 3 = Occasionally 2 = Rarely 1 = Never.

**Part Four** comprised of an index of Home Educational Resources (HER) which enabled parents to rate total number of books, number of children’s books and other educational resources found in the homes. High level, indicated more than 50 books in the home, 10 and above children’s books, in the home and 3 or 4 educational aids. Medium level, indicated 25-50 books in the home, 5-10 children’s books and 2 or 3 educational aids and lastly low level indicated less than 25 books in the home, less than 5 children’s books and 1 and 2 educational aids.
The questionnaire was pilot-tested using 3 preschool parents/guardians who were not participants in the actual study. The pilot was used to further refine the questionnaire items and to remove any ambiguities. Details of the piloting process are presented in the subsequent section.

3.6.2 Home Educational Resource (HER) Checklist

To determine print-richness of households and to establish if there is a match between what parents believe in, say and what they actually provide, non-participant observation was conducted to identify the types and number of educational resources available in homes. This documented HERs in continuum that is, high, moderate and less, specifically targeting environmental print (i.e. daily newspapers, calendars, charts and pictures), study area (books, desk, table), writing materials (i.e. crayons, chalk, drawing books) and educational toys (television, radios, computer). This checklist determined the total number of books, number of children’s books and other educational resources in the home. High level indicated more than 50 books in the home, 10 and above children’s books, in the home and 3 or 4 educational aids. Medium level indicated 25-50 books in the home, 5-10 children’s books and 2 or 3 educational aids and lastly low level indicated less than 25 books in the home, less than 5 children’s books and 1 and 2 educational aids. This approach provided greater accuracy, flexibility and possibility of data cross validation (Appendix V).
3.6.3 Focused Group Discussion Guides for Preschool Class Teachers

To cross validate parents’ self-reports, Focus Group Discussions were conducted with teachers handling beginners. The follow up by Focused Group Discussion targeting different respondents in this case, the teacher, provided more in depth accounts from their perspective vis-à-vis parents self-reports on constructs such as role definition, long held assumptions and routine literacy practices. Teachers verbalized notions, beliefs and assumption held by parents as well as concrete examples of actual literacy practices within households.

FGD was considered an important data triangulation method due to the likelihood of information elicited through questionnaires reflecting more of the parents’ theoretical or idealistic beliefs (what ought to be) usually informed by technical or propositional knowledge as contrasted with beliefs elicited through discussion of actual practices which may be more rooted in reality and reflect home literacy experiences and situations (Phipps & Borg, 2009). As such it enhanced credibility of data collected through corroboration. It consisted of closed and open ended questions. Closed-ended questions sought specific details (for example age, gender, class roll, years of experience, professional training etc). From an expert’s view point, personal views on value of ELSs and, their relevance in reading development, role of caregivers on literacy development, expected and observed literacy competencies of children at preschool entry and finally, the role of home environment as a literacy resource was solicited. They were equally required to indicate home-based factors that predicted literacy development. Findings from FGD guides was used to cross validate self-reports of parents. Converging and diverging statements were presented inform of verbatim excerpts (Appendix VI).
3.6.4 Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for 3-4 year olds

A tool, Dynamic Indicators of Basic Early Literacy Skills (DIBELS) by Deno, (1985), Deno and Fuchs, (1987), Shinn, (1989) was reviewed, customized and used in estimating children’s early literacy skills at preschool entry. DIBELS are a set of procedures and measures for assessing the acquisition of ELSs from kindergarten through sixth grade. The test is equally applicable in identifying children experiencing difficulty in acquisition of basic ELSs in order to provide support and to prevent the occurrence of later reading difficulties. They are designed to be short (one minute) test, comprising of seven measures that functions as indicators of phonemic awareness, alphabetic principle, accuracy and fluency with connected text, reading comprehension and vocabulary.

For this study the test was enhanced by adding more aspects. It was anticipated to take at least 15-20 minutes to be administered by researcher due to many components and practical assessments. However, during the administration of this tool this was again not feasible. For some children it took more than 40 minutes. It took 28 days for this exercise to be complete as opposed to the anticipated 18 days. The tool estimated ELSs of 3-4 year-olds in seven domain areas, namely: (i) oral language (ability to produce or comprehend spoken language) (ii) alphabet knowledge (understanding that alphabetic letters are used to represent the sounds spok) (iii) print awareness and concepts (knowledge about print and ability to recognize print in everyday life) (iv) book knowledge & appreciation (understanding elements of a books for example holding, turning pages among others) (v) phonological awareness (manipulating and recognizing individual sounds among others) (vi) print
motivation (appreciation for books and desire to engage in literacy activities among others) (vii) early writing (engagement in coloring, scribbling, drawing, writing and imitating features of adult writing among others).

DIBELS is a reliable tool which is adaptable to diverse contexts and also appropriate in assessing emergent literacy skills and behaviors of young children aged 3-5 years (National Research Council 1998; National Reading Panel 2001). The 23- items (based on the seven domains areas) were presented on a 4-point Likert scale: Not at all = 1, Not very well = 2, moderately well = 3, and Very well = 4 in which the researcher checked (√) against each statement based on the extent to which they agreed that the child demonstrated a certain level of skill. Very well indicated above average response score of greater than 3 through 4. Moderately well indicated an average of greater than 2 through 3, whereas, not very well indicated an average of 1 through 2. Finally, not at all indicated an average of 1 to less (Mullis, 2003) (Appendix VII).

3.6.5 Document Analysis Guide (DAG)

Secondary data meant to complement and supplement primary data was collected from published and unpublished sources including institutional records, internet, library research from books, journals, theses, periodicals, government publications as well as field research. Children’s drawing and writing samples were also examined to get the impression of letter learning and children’s emergent writing development (Merriam, 2002).
3.7 Pilot Study

Questionnaire which was the main data collection tool was pre-tested in three pre-schools. These were not included in the final study. The schools were: one privately-owned and two public attached preschools, located in the rural parts of Kakamega Central sub-county. From each preschool, three parents and three teachers were involved in examining the clarity of the questionnaire items and appropriateness of DIBELS tools respectively before fine tuning and adoption.

3.7.1 Validity

Creswell (2005) explains validity as the degree to which empirical measure or several measures of a concept accurately measure the concept. According to this scholar, validity is ensured by scrutinizing and carefully designing items on the tools of research to ensure that the items address adequately the objectives of the study. On the other hand, Mugenda (2008), describes validity as the degree of accuracy of data collected in representing a given variable or construct in the study. The former equally recommends that validity should be based upon careful analysis of the individual items by several expert judges. So, after design of the research tools, they were presented for construct and content validity judgment by a panel of experts in the Department of Early Childhood Studies, Language and Linguistics, Kenyatta and Technical University of Kenya. Panelists’ views and inputs were incorporated theme by theme when refining the tools and this enhanced the tools’ accuracy in collecting data according to the study objectives. Secondly, study piloting was conducted. Three preschool centers (one from urban, one from peri-urban and one from rural) which were not included in the main study were used for piloting. Views of experienced preschool teachers
were sought as they interacted with the tools. Inconsistencies detected during the pilot study formed a spring board for fine-tuning the tools before the actual data was collected. For instance, questions that were ambiguous and statements that were similar were made clear and others dropped respectively.

3.7.2 Reliability

Reliability is described as the accuracy and precision of a measurement procedure or tool (Creswell, 2008). For Mugenda, (2008), it is a measure of the degree to which an instrument gives similar results over a number of repeated trials. To ascertain that the questionnaire which was one of the main data collection tool in the present study was able to produce consistent results, split-half technique was adopted. Using the split-half method means the same participant can be used without having to wait for them to ‘forget’ the questions. It was found to be a quick and an easy way to establish reliability. These were seen as important strengths that led to choice of this technique. Determination of this instruments’ reliability was conducted after piloting and it involved four parents (two parents with a child enrolled in a preschool within an urban setup and the other two, in rural setup).

Split-half method was used to determine the reliability of the questionnaire items. It examined any positive correlation between the two halves. As such the researcher randomly chose half the questions on the first questionnaire and compared them with the results of the other half. This tool yielded a correlation of .78 and as Best states, this was strong hence the tool (questionnaire) was reliable and suitable for administration. Even though, one major criticism of this technique was that it can only be effective with large questionnaires in
which all questions measure the behavior being researched, it was found to be relevant in computing reliability of this tools. Indices or scales representing Parents Literacy Beliefs (PLBs), Home Educational Resources (HERs) and Parent Child Literacy Practices (PCLPs) were analyzed. Composite scores were computed for each of the two sets of questions from the two tools. Scores were correlated using Pearson Product Moment Correlation coefficient. They correlated at a reasonably high level (0.78) (See table 3.3) as argued by Creswell, (2005), a reliability of not less than 0.7 is recommended.

To ensure further internal consistency of the research tools, ambiguous questions were refined after the pilot study (Creswell, 2004). Methodological triangulation equally ensured further consistency. This was achieved through incorporation of open ended items in the questionnaire schedule and interviews as well as conducting participant observations. This provided opportunity to cross validate self-reports of parents. The reliability analysis is summarized in the following table:

| Table 3: Reliability Coefficients for Parents or Guardians Questionnaire |
|-----------------|---------------------|
| Instrument      | Questionnaire for Parents/Guardians |
| Reliability Coefficient | 0.78 |

Table 3 indicates a reliability coefficient of .78, based on Pearson Product Moment Correlation coefficient. This was considered adequate (Creswell, 2008) and adopted after fine-tuning ambiguous questions. Further, reliability of the study results was assured through methodological triangulation. According to Orodho, (2004), methodological triangulation is applied when the researcher uses more than one data collection instrument to
measure variables. Data collected using questionnaire was confirmed through use of interview schedule, observation guides and Focused Group Discussion Guides.

3.8 Data Collection Techniques

Familiarization, obtaining contacts, class registers and consent from parents was done on the first week of term one. On obtaining consent, teachers and parents were briefed on the objectives of the study and appropriate dates set for administration of research tools. Data collection was conducted in two phases with the help of one research assistant.

Phase One involved questionnaire administration. This was administered to 72 parents. It took place within the preschool setup through arrangement done by the teacher. Provisions were made for parents who were not comfortable to be interviewed at school. Two parents were interviewed at the work place and one guardian was interviewed at home. Questionnaires yielded both quantitative and qualitative data. Questionnaires were mainly constructed in English but provisions were made for those who were not comfortable with either Kiswahili or English languages.

Phase Two entailed administration of Dynamic Indicators of Basic Early Literacy Skills (DIBELS) checklist to estimate early literacy skills of seventy-two, 3-4-year-old children. This was conducted within the preschool centers. Assessment took one month approximated at about 15-20 minutes’ interaction with an individual child with the assistance of a preschool teacher.
Phase Three entailed filling of Home Educational Resource (HER) checklist within households. Focused Group Discussion with preschool teachers was also conducted in phase three. A total of three FGDs were held each comprising of 8 participants (teachers), giving a total of 24 participants. It was designed to take two hours. These were all tape recorded for transcriptions after obtaining consent from teachers. (Appendix III)

3.9 Data Analysis

Data analysis is the process of systematically organizing the materials collected, bringing meaning to them so that they tell a coherent story and writing it all up so that others can read what one has learned (Ololube, 2006). For this study, both qualitative and quantitative data analysis techniques were adopted to enable the researcher give a reasoned meaning to the study. The analysis of the data collected was based on the specific research questions and also dependent on the kind of data collected. Data collected from administration of the questionnaire were both qualitative and quantitative while data from the FDGs, observation and document analysis were mainly qualitative. This called for different methods of analysis.

3.9.1 Quantitative Data Analysis

According to Gay and Airasian (2000) quantitative data analysis is a process of manipulating a collection of numerical data in order to explain, predict and/or control phenomena of interest. Pole and Lampard (2000) on the other hand, explains this process as one which involves decision-making and data manipulation guided by theoretical ideas, the researcher’s substantive insight, his or her degree of experience as a data analyst and the
data itself. This technique was adopted in this study to analyze data based on statistical scores that were sought by objective two, three, and four.

Quantitative analysis began with examination of tools for completeness and accuracy, followed by data coding, entry, cleaning, transformation, analysis and interpretation in that order. Data transcription and coding was done by the aid of computer Software Programme (SPSS version 21.0). This was mainly for statistical scores from structured components of the questionnaire namely: indices of Parent Literacy Beliefs (PLBs) Home Education Resource (HER) checklists, Parent Child Literacy Practices (PCLPs) scales as well as Dynamic Indicators of Basic Literacy Skills (DIBELS) checklists. These were computed differently, separately, and objective wise taking note of indicators of focus (Mullis, 2003).

**Objective One** determined the extent to which a selected Parents’ Demographic Characteristics predicted attainment of early literacy abilities among 3-4-year-old children. Data on demographic characteristics was checked based on options provided on Section A of the Parents’ Perceptions of Literacy Learning Questionnaire. Results were computed in frequency, means, and percentages. Multiple Regression Analysis was conducted to determine the quality of the prediction of each of the demographic characteristic on the early literacy skills attainment (Creswell, 2008).

**Objective Two** sought to establish the relationship between Parents’ Literacy Beliefs (PLBs) and early literacy abilities of 3-4 year olds. A reliable tool for rating parents’ perception or extent of their agreement, the Parents’ Perceptions of Literacy Learning
Questionnaire was used. Self-reported responses were rated on a 5-point Likert scale, computed in weighted means and reported by area of residence. Beliefs were classified into Strongest Belief (4.1 - 5.0), Moderately Strong (3.1– 4.0), Satisfactory Belief (2.1 – 3.0) and lastly, Weak Belief (1.0 -2.0). DIBELS checklists which contained 23- items were checked on a 4-point Likert scale indicating each child’s level of competence in early literacy. Relationships between mean weighted scores of PLBs and values of ELSs was then determined based on Pearson Product Moment Correlation coefficient.

**Objective Three** Examined Parent Child Literacy Practices (PCLPs) that influenced development of early literacy abilities of 3-4-year-old children. Parents’ Perceptions of Literacy Learning Questionnaire was used in rating the extent of caregivers’ agreement on the influence of a selected Parent- Child Literacy Practices as well as, the frequency with which caregivers engaged in joint literacy practices based on based on a 5 point likert scales respectively. PCLPs were then categorized into six broad themes (A to F). Computations of means frequencies and percentages then determination of relationship based on Pearson Product Moment Correlation Coefficient Univariate Analysis was conducted to determine the interactive effect and differences in means between the six categories of parent Child literacy practices and early literacy competencies of 3-4-year-old children at significance level of 0.05

The final objective (Objective Four) sought the relationship between Home Literacy Resources (HLR) and early literacy abilities of 3-4 year olds. To achieve this, an index of Home Educational Resources (HER) was rated by caregivers indicating to total numbers of books and educational resources in the home. High level indicated more than 50 books in
the home, 10 and above children’s books, in the home and 3 or 4 educational aids. Medium level indicated 25-50 books in the home, 5-10 children’s books and 2 or 3 educational aids and lastly low level indicated less than 25 books in the home, less than 5 children’s books and 1 and 2 educational aids.

The available resources were summarized into five broad themes computed in means, frequencies and percentages and analyzed as per location. Caregivers’ opinion on the level of effectiveness of a selected Home Literacy Resources was also rated on a 4-point Likert scale using Parents’ Perceptions of Literacy Learning Questionnaire. Quantitative data was coded into a computer software namely SPSS windows version 21.0 (Bryman & Cramer, 2001) and relationship determined by means of Pearson Moment Correlation Coefficient (PMCC) and interactive effect by Analysis of Variance (ANOVA). This established the relationship between study variables. Further, multiple regression analysis was conducted to determine the quality of the prediction between demographic variable and the early literacy outcomes of children. Analysis of Variance (ANOVA) determined the interactive effect and difference between means of the 5 broad classifications of HLRs and values of early literacy outcomes of 3-4-year-old children at significance level of 0.05 Results were then presented in tabular and statistical forms.

3.9.2 Qualitative Data Analysis

Creswell (2008, p 15) defines qualitative research as: “an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting”. Gay and
Airasian (2000) on the other hand see qualitative research as the collection of extensive data on many variables over an extended period of time, in a naturalistic setting, in order to gain insights not possible when using other types of research. This definition has little or no difference from the one cited by Creswell.

Parts of the questionnaire tools contained unstructured or open-ended questions, (Denscombe, 2005). Further more information was gathered through Focused Group Discussions and Documentary Analysis and this elicited more in-depth and flexible information which were presented in qualitative means (Mugenda, 2008). As expressed by this scholar, mere figures alone would not have explained the complex nature of this study.

Qualitative information from preschool teachers was processed as follows: recording the interview using a tape recorder, data cleaning, classification of various responses; identifying key responses for various themes; listing and tallying key responses by specific themes, transcribing the record, identifying patterns emerging from key responses; studying the interrelationships between identified patterns and drawing inferences from the patterns and their interrelationships. Processing of the qualitative data began from the field. After each interview session, all relevant responses from the discussions were put together. Classification of various responses was then carried out for individual sessions. This information was grouped. Finally, information from the various groups was summarized by themes. A summary of data analysis plan by objective is provided (Table 4) highlighting the variables of focus, indicators measured on each variable, instruments used to measure the constructs and statistical data analysis techniques employed.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Objective</th>
<th>Data</th>
<th>Indicator</th>
<th>Instrument</th>
<th>Analysis of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Extent to which parents’ Demographic Characteristics and Early Literacy Abilities of 3-4 year olds</td>
<td>Demographic characteristics of parents/guardian</td>
<td>Numbers /Frequency/ Percent</td>
<td>Parents’ Perceptions of Literacy Learning Questionnaire FGD guides DIBELS</td>
<td>Tables Narratives Multiple regression Analysis</td>
</tr>
<tr>
<td>2.</td>
<td>Relationship between Parent Literacy Beliefs and early literacy abilities of 3-4 year olds</td>
<td>Parent Literacy Beliefs</td>
<td>Positive / Negative Beliefs System</td>
<td>Parents’ Perceptions of Literacy Learning Questionnaire FGD guides DIBELS</td>
<td>Tables Narratives PMC Coefficient</td>
</tr>
<tr>
<td>3.</td>
<td>Influence of Parent Child Literacy Practices and Early literacy skills of 3-4 year olds</td>
<td>Parent Child Literacy Practices</td>
<td>Nature / Frequency/percentages on effectiveness</td>
<td>Parents’ Perceptions of Literacy Learning Questionnaire FGD guides DIBELS</td>
<td>Tables Narratives PMC Coefficient</td>
</tr>
<tr>
<td>4.</td>
<td>Relationship between Home literacy Resources and Early Literacy Abilities</td>
<td>Home Educational Resources (HER)</td>
<td>Availability / Numbers / Accessibility of HLRs</td>
<td>Parents’ Perceptions of Literacy Learning Questionnaire FGDs HLR checklist DIBELS</td>
<td>Tables Narratives PMC Coefficient</td>
</tr>
</tbody>
</table>

Tools were first examined for completeness and accuracy before transcription and coding into the computer software program, SPSS version 21.0 (Bryman & Cramer, 2001). First, open-ended items based on research questions 1, 2, 3 and 4 were first checked for internal consistency (Cooper & Schindler, 2003). Cronbach’s alpha was used to determine inter-rater reliability of open ended items and helped creation of categories and examination of emerging (Nunnaly, 1978). Emerging themes were then presented using descriptive statistics (for example means, frequency counts, percentages, tables, pie and bar charts as
well as multiple bar graphs). Narratives from interviews and FGDs were also reported verbatim in form of excerpts.

3.10 Logistical and Ethical Considerations

The following sections present logical and ethical considerations of the study.

3.10.1 Logical Considerations

To ensure ethics in the study, an introduction letter from Graduate School (GS), Kenyatta University was used to obtain a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) (Appendix IX). A visit to the Sub-county Office to obtain a list of preschool centers was made. This was followed by an initial visit to preschools by the researcher in the second month of the first term of January 2015. During this period, the researcher got an opportunity to introduce herself, obtain consent to carry out the study and also to explain the study objectives to preschool directors and teachers.

3.10.2 Ethical Considerations

Ethics in research is based upon the confidence that research is carried out honestly, objectively and in a manner that protects participants’ rights of privacy (Australian Market & Social Research Society-AMSRS, 2009). As recommended by Denscombe (2008) and Cohen (2008), confidentiality of information given by research participants was guarded as much as possible. All the gate keepers were assured of autonomy. The researcher ensured a balanced research relationship by encouraging disclosure, trust amongst respondents as well as guaranteeing participants’ autonomy. This enabled eliciting candid and objective
responses. Research proposal was reviewed by the Research Ethics Review Board of Kenyatta University to ascertain they conform to standards.

Finally, in the recognition that the study dealt with minors and that the right to informed consent is one of the vital rights of a participant, a written consent was sought from the parents/guardians of participating children and information about the study intentions, freedom of choice to participate in the study, and right to withdraw their children at any time without penalty was shared. Written consent was provided by parents whose children participated in the study. Research Ethics Review Board ascertained plagiarism was avoided and that all the literature used in the study was dully acknowledged by the researcher. Consent to use a tape recorder was sought by first making it clear to the respondents the study intentions. This was used during FGD sessions only.
CHAPTER FOUR

DATA PRESENTATION INTERPRETATION AND DISCUSSION

4.0 Introduction

Chapter four present findings of the study as collated from the research instruments described in sections 3.6.1 to 3.6.5. This chapter opens up by a presentation of findings of a selected Parental Demographic Characteristics (background variables) believed to be facilitative variables of early literacy outcomes. Parental age, gender, educational qualification and level of income are discussed in detail while other parental demographic characteristic are also highlighted. A lot of focus is given to variables that have dominated literature for some time as key predictors of ELSs. The extent to which they contribute to development of early literacy outcomes was determined through multiple regression analysis and ANOVA.

In this chapter, research objectives are addressed progressively. For each objective, overall treatment is followed by a relevant variable consideration, and then plausible interpretation of results is done in descriptive and statistical forms. This is offered in light of related literature in Kenya and other parts of the world. Implications of study results are also captured in this chapter. The population of the respondents was 168, comprising 72 parent/guardians, 72 children and 24 preschool teachers. The present study sought to establish the influence of HLE on development of ELSs of 3-4-year-old children in Kakamega Central Sub-county, Kenya. In so doing it estimated ELSs of 3-4 year-old
children at kindergarten entry that were perceived to be precursors to conventional literacy. Specifically, it addressed the following objectives:

1. Determine the extent to which Parental Demographic Characteristics predict the development of early literacy abilities of 3-4-year-old children in Kakamega Central Sub County, Kenya.

2. Establish the relationship between Parents Literacy Beliefs (PLBs) and early literacy abilities of 3-4-year-old children in Kakamega Central Sub County, Kenya.


4. Investigate the relationship between Home Literacy Resources (HLRs) and early literacy abilities of 3-4-year-old children in Kakamega Central Sub County, Kenya.

The study tested the following null hypotheses

1. H₀: There is no relationship between Parental Demographic Characteristics and early literacy abilities of 3-4-year-old children in Kakamega Central Sub county Kenya

2. H₀: There is no relationship between Parent Literacy Beliefs and early literacy abilities of 3-4-year-old children in Kakamega Central Sub- County, Kenya

3. H₀: There is no difference in early literacy abilities of 3-4-year-old children from literacy rich homes and those from literacy-poor homes in Kakamega Central Sub-County, Kenya

4. H₀: There is no difference in early literacy abilities of 3-4-year-old children enrolled in the urban, peri-urban and rural preschools in Kakamega Central Sub-County, Kenya
Objectives and hypotheses stated above generated both quantitative and qualitative data. Quantitative data was analyzed with the help of a computer software namely SPSS windows version 21.0 (Bryman & Cramer, 2001). Statistical computations were done by means of Pearson Moment Correlation Coefficient (PMCC) and Analysis of Variance (ANOVA) A multiple regression analysis determined the quality of the prediction between each of the parental demographic characteristics and the early literacy outcomes of children. Qualitative data was analyzed using descriptive statistics and presented in tabular and graphical forms and, supported by narrative or in verbatim in form of excerpts. The first section presents results on demographic characteristics of respondents.

4.1 Parents /Guardians General and Demographic Characteristics

Parents’ level of educational attainment, occupation, family economic success (Nord, Lennon, Liu & Chandler, 2000), parent-child relationship (National Institute for Literacy, 1998) are highly published, as contributing factors to literacy development. Specifically, low income or social risk (Forum on Child and Family Statistics, 2004) has posted the strongest relationship ranging from 43% to 60% with low literacy scores. As a matter of fact, an EPPE’s large scale project (Sylvia et al., 2004), which surveyed professional and middleclass parents’ literacy activities, concurred that social class and level of parents’ education, are distinct from ethnicity and nationality, but are critical contributors to the development of literacy in children. There is consensus that children from disadvantaged backgrounds (defined by social class and level of parents’ education), enrolled into preschool (around age 3) and primary school (around age 4+) are largely less prepared to begin literacy education. On this premise, the present study determined the influence of selected
demographic characteristics of parents/guardians. The sections that follow presents parents’/guardians’ level of educational attainment, occupation and income level, family size and area of residence, age, family type, marital status and gender of the respondents.

4.1.1 Parents/Guardians Gender, Marital status, Family Structure, Parental Age, Residential Area and Education Level

A distribution of parents’/guardians’ by gender, marital status, type of family, age, location and level of educational attainment opens up this section.

Table 5: Distribution of Parent/Guardians by Gender, Marital status, Family type, Age, Residential Area and Education Level (n = 72)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category</th>
<th>F</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>44</td>
<td>61.0</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>28</td>
<td>39.0</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>53</td>
<td>75.0</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>10</td>
<td>13.9</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>8</td>
<td>11.1</td>
</tr>
<tr>
<td>Type of family</td>
<td>Polygamous</td>
<td>14</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>Monogamous</td>
<td>58</td>
<td>81.0</td>
</tr>
<tr>
<td>Age range</td>
<td>21-30</td>
<td>26</td>
<td>36.11</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>28</td>
<td>38.89</td>
</tr>
<tr>
<td></td>
<td>41-50</td>
<td>8</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>51-60</td>
<td>4</td>
<td>5.55</td>
</tr>
<tr>
<td></td>
<td>Over 60</td>
<td>6</td>
<td>8.33</td>
</tr>
<tr>
<td>Location or residence</td>
<td>Urban</td>
<td>23</td>
<td>31.94</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>22</td>
<td>30.56</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>27</td>
<td>37.50</td>
</tr>
<tr>
<td>Parents’ level of education</td>
<td>Never attended schools</td>
<td>8</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>Primary school</td>
<td>9</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>10</td>
<td>13.9</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>38</td>
<td>52.8</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>7</td>
<td>9.7</td>
</tr>
</tbody>
</table>
4.1.1.1 Parents’/ Guardians’ Gender (n = 72)

Primary caregivers are integral contributors, critical links, valuable resources, meaning-makers and ‘active ingredients’ in children’s initial literacy (Flouri & Buchanan, 2004). Fathers are recognized as the second most important persons to inspire reading and literacy outcomes of their children after mothers (Clark Osborne & Dugdale, 2009) and are as capable as mothers in literacy interaction with their children. And so, this research targeted either gender in getting responses but mainly encouraged more involvement of male parents.

Even so, the gender disaggregated data (Table 5), indicate that a majority 44 (61.0%) of the respondents were females. Males were the minority 28 (39.0%). This is striking, given that the present study deliberately attempted to encourage participation of male in the study. Results concur with local studies (Mwoma, 2010; Ngugi, 2002) which expressed that ECDE is still a female dominated discipline. Male parents are passive in all matters related to development of children at the formative stages of life, a situation that may be a manifestation of cultural bias which has considered child care and development as woman’s agenda for several decades.

In an attempt to explain the reason behind male parents’ low participation, teachers’ interview results pointed out sentiments bordering personal, gender and cultural stereotypes.

Teacher X, a participant in the fourth FDG 5 aptly explained:

Most fathers equate education in the early years to childcare. They believe that mothers are in a better position to offer opportunities for early reading development due to their close connection with children at the formative stages of life…Whenever, parents are summoned for any meeting, female parents’ turnout is always impressive. In the absence of female parents, male parents prefer having
house helps or older siblings attend school functions and meetings on behalf of parents (FGD Summaries: 23/1/2016).

As earlier hinted by (Lynch, 2002; Mwoma, 2010), familial, personal, structural and cultural barriers are too compelling to men that they need urgent attention. Fathers are discouraged from being involved in development of their children due to preconceived gender roles, feelings of inadequacy, uncertainty about their roles in children’s learning and prioritization of their own needs, abilities and interests.

As it is, men’s level of participation in ECD has not changed even with intensive community mobilization efforts. This may be a significant contributor to insufficient attention towards preschool development, inappropriate learning environment as well as poor learning outcomes. Nonetheless, ‘female dominance’ is believed to be a fuel and an enabler for development in this period (NICHHD-ECCRN 2000). As a matter of fact, children who are read to, told stories or sang songs to (especially by mothers): develop wider vocabularies, become better readers and perform better in school, whereas children who lack this kind of stimulation especially from their mothers during early childhood tend to arrive at school with lower levels of language skills.

4.1.1.2 Marital Status of Parents/ Guardians (n = 72)

Economic burden, low income generated stressors, lack of parental involvement and irresponsiveness are perhaps, common characteristics of large family or single headed family structures. Significant is their link with inadequate educational support (OECD, 2002). Based on this argument, the present study established marital status of respondents.
Results on this aspect (Table 5) indicate that 54 (75.0%) of the respondents were in marriage while only 10 (13.89%) were not. A few 8 (11.1%) of the respondents were widowed. A majority of children from the surveyed households appeared to have social, moral and academic support from both the parents. Such a context is believed to be appropriate for emotional support and academic skill development. As put by Brooks (2002) such a context is also likely to promote rich conversations and contingent feedback that are positively linked to superior ELSs (oral communication) at preschool entry.

4.1.1.3 Parents/Guardians by Family Structure (n = 72)

Family structure is not only predictive of the number of dependents in a family but also its socio-economic situation which in turn, predicts academic support (OECD 2002). For instance multiple partners, is commonly associated to large family sizes and of course, high economic burden. More often than not, children’s chance of engaging in asset based literacy practices or obtaining educational resources (for example being in possession of educative toys, watching educational programs) is diminished. Importantly, it robs a parent the opportunity to provide academic support due to overwhelming and competing demands. This study sought to establish types of arrangements in the sampled households.

As depicted on the table 5, a majority of caregivers lived among monogamous families constituting 58 (81.0%) while the rest 14 (19.0%) lived in polygamous families. Results reveal that children from surveyed households enjoyed all benefits perceived of monogamous families namely: adequate early childhood stimulation from both parents and
academic support necessary in laying foundation for reading development and psychosocial support.

4.1.1.4 Age of Parents/ Guardians (n = 72)

Literacy research identify age as a variable important in explaining a parent’s desire, motivation and competence in providing literacy support to a child. Specifically, data disaggregated by age has consistently discovered benefits of youthful parenting especially with regards to tutelage of school related skills, academic role modelling and interest in school activities (Papadopoulos, 2002). For this reason, this study attempted to establish the age of parents/guardians of the participating children. The diagrammatic representation below bears out the distribution of parents by age.

Figure 2: Distribution of Parents /Guardian by Age (n = 72)

For this study, 26(36.11%) of parents’/guardians’ fell in the range of 21 to 30 years while 26 (38.89%) fell between 31- 40 years of age. Another, 8(11.11%) of them were in the range of 41 – 50 years, while the remaining 4(5.55%) were aged 51 – 60 years old. Notably, 6 (8.33%) of the respondents were over 60 years old. In sum, a majority 52(75%) of
caregivers were in their youthful stage with only a few who seemed to be either guardians or grandparents.

Youthful parenting has enormous potential in nurturing reading ability and in supporting children in becoming literate. To start with, young parents are typically more educated thereby serving as role models (exemplify reading behavior). They also have the capacity to tutor their children (implicit tutelage) hence it is expected that children of youthful parents would be right on their path towards literacy education without intensive intervention. However, for a minority 6(8.33%) of the children, presumably living with guardians (for instance grandparents), are likely to be living in a deprived literacy and communicative environment (less practices, inadequate resources and so on). As expressed by Papadopoulos, (2002), primary caregivers who are of age, 60 years and above, demonstrate low confidence in offering learning support in specific areas (for example reading and writing, taking a child to the library, playing games to teach a child new things, reading to a child and so on). As such, an analysis of their situation and tapping the situated expertise of their elderly caregivers may help put them back on course. Such children could be an important target group for early literacy intervention before formal instructions. If not, they would be classified as children at risk of reading failure.

Even as research evidence equate old age to illiteracy, negative self-concept and inadequate literacy modeling, a conflicting finding by Morrow and Gambrell (2001), maintain that elderly caregivers remain rich sources of oral literature for young children. In support is Melhuish and Colleagues (2008), who recognized elderly caregivers as prime resources too.
According to the duo, caregivers are instrumental in creating interest and curiosity in literacy learning, developing and availing literacy resources, planning for conversations and sharing stories from cultures and oral traditions. All these are valuable opportunities for promoting oral language forms and building a strong literacy foundation.

4.1.1.5 Parents/Guardians by Area of Residence

Residential area is yet another important variable of consideration given its link with families’ socioeconomic status (for instance income, occupation and education level). Rural and/or slum dwelling correlates with low SES, that is, low level of education and income, all factors which position themselves to impede academic skill development in the early years and beyond. As argued out by Arasa (2004) and Ngugi (2000) high levels of illiteracy and low income among rural and slum dwellers are the major impediments that render caregivers less likely to read for pleasure or help their children with reading and writing task. On the other hand, there is some evidence from Harris and Goodall, (2007) and Wambiri, (2007) who discovered less literacy activities in samples of working-class families, which were attributed to lack of time and ignorance of parents about their role as prime educators in the early years.

Reasoned from this polarized view, scholars (Hood, Conlon & Andrews 2008; Flouri & Buchanan, 2004; OECD, 2002; Neuman & Dickinson 2006) consider that social class, family size, level of parental education, occupation and income are less important in determining children’s reading outcomes. Actual characteristics of the atmosphere created by the parents, are believed to be more powerful in preparing them for the demands of
school (Melhuish et al., 2008). It was interesting to understand whether residence is connected to SES status of families, beliefs, literacy practices, home literacy resources and variations in early literacy outcomes of 3-4 year olds at kindergarten entry. As such the figure below (Figure 3) gives a distribution of families by residential location.

![Figure 3: Distribution of Parent/Guardians by Residential Area](image)

Figure 3, indicate that 23 (31.94%) of the respondents lived in urban locations, while 22 (30.56%) lived in the peri-urban locations of Kakamega Central Sub-county. Twenty-seven (37.50%) of the respondents were rural dwellers. Although, slightly more of the surveyed families 27(37.5%) resided in the rural locations, there was a fair representation of respondents across the three geographical locations. Such diversity in sampling is likely to allow establishing accurate variations that exist (i) along SES lines, (ii) with regards to
beliefs, literacy practices, home literacy resources and (iii) based on variations in early literacy outcomes of 3-4 year olds at kindergarten entry.

4.1.1.6 Level of Educational Attainment of Parents/ Guardians (n = 72)

The link between parental education attainment, a child’s literacy development trajectory, school readiness skills and overall school success is adequately published. According to Lara-Cinisomo et al., (2004), children whose mothers are less educated, have less access to books at home, are less likely to be read stories and/or taken to the library. On one hand, international and local literature (Parsons & Bynner, 2007; Williams, Clemens, Oleinikova, & Tarvin, 2003; Arasa 2004; Wambiri 2007; Ngugi 2000), observe that children of less educated parents are at the greatest risk for low cognitive and language development, since such parents are unlikely to help their children with reading and writing.

Other scholars observe that children of highly educated parents read more for pleasure, are likely to have high cognitive and language development. Perhaps, this is because such parents consistently place greater premium on education, display better understanding of what is expected of children at kindergarten entry (Finlayson, 2004), and have capacity to provide enriching literacy environment (Baker et al., 1995). Parental education is seen to have significant links to: beliefs about reading (Lynch, et al., 2006), concept of home reading activities (Baker, et al., 1995) and value of literacy resources in the home environment. In view of the foregoing, this present study investigated parents’ educational level. Findings are as follows:
Table 6: Distribution of Parent /Guardians by Level of Educational Attainment

(n = 72)

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never attended schools</td>
<td>8</td>
<td>11.1</td>
</tr>
<tr>
<td>Primary school</td>
<td>9</td>
<td>12.5</td>
</tr>
<tr>
<td>Secondary school</td>
<td>10</td>
<td>13.9</td>
</tr>
<tr>
<td>Tertiary Level (college)</td>
<td>38</td>
<td>52.8</td>
</tr>
<tr>
<td>University</td>
<td>7</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Findings indicate that 8(11.1%) of the respondents had no formal education while another 9(12.5%) had primary education qualifications. A slightly higher percent 10 (13.9%) had secondary education qualification while a majority 38(52.8%) of the respondents had attended education up to tertiary level. The least number 7(9.7%) had university education qualifications. Essentially, a majority 64 (86.2%) of the respondents having some basic and higher educational qualification are believed to not only possess positive reading attitude but also greater capacity to offer literacy support (for example engaging continuously in shared reading or dialogic book talk).

It is also expected that they will place greater premium in their children’s education and, that their perception, behavior and habits will shape families’ literacy practices. For a few, yet significant 8 (11.1%) without such formal education, their children could be at risk of reading a failure making them an important target group for early literacy assessment and family literacy interventions (De Coulon, Meschi & Vignoles, 2008) just before kindergarten entry. Early literacy intervention could prepare them for the literacy instruction
in school and beyond. This is in line with findings of a study by McCarty and Franze (2005), who observed that such disadvantage (for example low parental education) place children at risk of low educational attainment and can only be reversed before formal instruction. Since schools are best positioned to provide such support, Hallgarten, (2000) and Nakagawa, (2000), suggests that schools should provide support for parents with low literacy levels and remove barriers present within the school system that hinder involvement of parents (e.g negative experiences cultural and language barriers).

Unexpectedly, educational attainment, is equally contestable as an accurate explanatory variable for academic support from a teacher’s perspective. When asked to share her experiences with children of parents of varied educational levels, Teacher X of FDG 3 had this to say:

To me I don’t think education really matters. Yes, a majority of educated parents value excellent learning outcomes and would afford a book or two for their children, they do not possess qualities which are important in nurturing basic skills such as reading. Educated parents want immediate results, are impatient and believe that money can do miracles. They are always willing to engage teachers on private tuition all times even during school holidays. Others possess the ‘know it all’ attitude and are not willing to listen to teachers. They do not take time to understand their children, are quick in judging and comparing children. Some of them push children too much, making them just lock up. (FDG Summaries, 23/1/2016)

From the results, educational level may not fully explain the level of educational support at home. This is to say although, literacy support in the HLE appears to be predicted by educational level of a parent, it is not an accurate explanatory factor. Parents do not seem to know exactly how to support their children and have not lived up to the expectations of early childhood educators. Educational attainment should not be exclusively equated to
provision of home literacy resources, but rather, availability of opportunities for tutelage and high intensity of joint literacy practices. As earlier hinted (OECD, 2002), parent’s educational qualification matters…but if the mother reads to the child, plays rhyming games, sings songs, talks about letters and sounds, and takes the child to the library, these behaviors at home are more important. It suffices to say, every parent irrespective of their level of educational attainment can be empowered as their children’s best primary educators. Importantly, school-home partnership should be embraced as the most vital component for literacy development.

4.1.1.7 Parents’ / Guardians’ Occupation and Average Monthly Income (n = 72)

Parents’ occupation or rather, average monthly income, predicts a parent’s ability to meet basic family requirements as well as academic support. Accordingly, multicultural analysis (NICHD, 2002; NELP, 2008) has demonstrated the link between poverty to fewer educational resources and diminished academic achievement among children. Likewise, large scale comparative analysis (National Research Council, 2000) noted that slightly more than half of low-income families (52%) possess fewer than 26 books in the home as compared to 23% of middle and upper-income families. Specifically, Lindsay (2010), discovered a consistent gap between academic performance of children in poverty and their upper and middle-class peers. Her study concluded that families in poverty lacked skills, are unsure of their role in supporting their children’s emergent literacy skills and cannot afford children’s books or reading resources. For instance, they do not subscribe to magazines or newspapers yet; these materials are an important part of a supportive literacy environment.
In contrast, Penly (2004) believes that the level of economic disadvantage is not an accurate explanatory variable for a supportive literacy environment. In his conclusions, he cautioned that educators and researchers should not overlook the situated expertise of parents even when they live in disadvantaged circumstances but rather, support caregivers as first literacy educators. To qualify this argument, Bettelheim and colleagues (1982) discovered that parents from all walks of life, that is: economic status, educational level or cultural background, care deeply about their children’s education and are able to provide substantial support if given specific opportunities and knowledge. It can then be inferred that all families have the ability to create family cultures that encourage their children to become actively literate adults and lifelong readers. This assertion became live based on an interview excerpt which attempted to compare literacy support through a socio-economic lens. Teacher IX in FDG 2 retorted:

Parents from low income families are more patient and easy to work with. They can spare some of their time engaging children as well as teachers. They regularly consult on how best to support their children in various academic pursuits. Specifically, females from low income families make great sacrifices. They seek to understand their children’s academic threats, make more contacts with teachers and do not take for granted little progress realized by children. They are free with us. We advise them on available literacy resources and supplementary reading materials. Some of them go as far as requesting class readers, story books and other materials for use at home. This kind of support yields immeasurable gains such as a child’s great interest in learning and improved reading development outcomes (FDG Summaries: 23/1/2016).

Premised on this diverging view, parents'/guardians’ occupation and average monthly income was also considered as an explanatory construct for HLE and was established by the study. Findings are as shown in Figure 4.
Results, indicate that a half (50.0%) of the respondents were employed while the other half (50.0%) of them were unemployed. Although, the study did not investigate households’ alternative sources of income, it was assumed that those not employed, did not have gainful employment or rather, steady, secure and reliable source of income. Given that a majority of respondents were women, results confirmed that a majority of women are economically disadvantaged. Importantly, half of the sampled households could be classified as disadvantaged, hard- to- reach and economically deprived. Children living in such households are likely to be at risk of reading failure. It then means that they should be the target for family literacy services or early grade reading intervention before formal literacy instruction. If this is not done, then they may lag behind their peers at school entry. Results on income level is as stipulated.
Table 7: Distribution of Parents/ Guardians by Average Monthly Income (n =72)

<table>
<thead>
<tr>
<th>Income</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ksh. 10000 and below</td>
<td>39</td>
<td>54.2</td>
</tr>
<tr>
<td>Ksh. 10000 – 30000</td>
<td>19</td>
<td>26.4</td>
</tr>
<tr>
<td>Ksh. 30000 – 50000</td>
<td>10</td>
<td>13.9</td>
</tr>
<tr>
<td>Ksh. 50000 and above</td>
<td>4</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Table 7 indicate that 39(54.2%) of the respondents earned an average income of Ksh. 10,000 and below per month, while another 19(26.4%) recorded that they earned monthly income ranging from Ksh. 10,000–30,000. A further 10(13.9%) had their monthly income ranging from Ksh. 30,000–50,000 while another 4(5.6%) earned Ksh. 50,000 and above per month. A majority, 58 (80%) fell in lowest income bracket, an indicator that they were less likely to provide “literacy objects” (for example alphabetic toys, crayons, colored pencils, puzzles, picture books) and opportunities (for example taking child to the library, play games to teach child new things, reading to child, sharing reading, providing reading materials). That is to say, a majority of children are not placed at a vantage point in developing pre-reading and prewriting skills based on their economic backgrounds.

In the recognition that family income is likely to be influenced by other factors, information on family size was necessary. So, parents /guardian were asked to indicate the number of dependents (children and adults) in the same household other than their sons/ daughters/ grandsons/ daughters. Findings were as presented below in Table 8:
Table 8: Distribution of Households by Family Size

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Freq</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children /dependents in a family</td>
<td>None</td>
<td>2</td>
<td>2.78</td>
</tr>
<tr>
<td></td>
<td>1 – 3</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>4 – 6</td>
<td>19</td>
<td>26.89</td>
</tr>
<tr>
<td></td>
<td>Over 6</td>
<td>15</td>
<td>20.83</td>
</tr>
</tbody>
</table>

Findings indicate that 2(2.78%) of the respondents had no other dependents in their families except their child or grandchild. Another 36(50.0%) indicated living with 1-3 dependents in their families. Another 19(26.89%) of the respondents had 4-6 dependents while 15(20.83%) of the respondents had over 6 dependents in their families. In sum, 34(47.72%) had more than four dependents other than their children or grandchildren. From the results we can recognize some level of economic strain. This may be so, considering results on average monthly income (table 7). A significant percent of households may not be in a position to avail basic literacy resources that support children’s reading development (e.g. alphabetic toys, crayons, colored pencils, puzzles and picture books) or asset based literacy practices (for instance library visits, going for family shopping). As well, other social and psychological issues such as inattentive to a child’s educational endeavors and impaired relationships may also push these children further into academic disadvantage (Neuman 2006).

Nonetheless, from a socio-cultural standpoint, availability of significant others or social models such as siblings, peers of school going or preschool age is believed to signify an ‘enriched communicative environment’. Peers and siblings are meaning makers, useful
ingredients and potent forces in the home context (Vygotsky, 1978). Younger children benefit from literacy interactions and experiences of their peers and more capable siblings even in the absence of parents. This is hinged on the premise that literacy is a social-contextualized practice that is experimented and experienced in a social setting (De Temple, 2001)

4.1.1.8 Parental Demographic Characteristics as Predictors of Early Literacy Abilities of 3-4 year old Children

Demographic characteristics such as age, gender of a parent, family size, parental educational level and parental income, have been consistently illuminated in literature as significant contributors to literacy development in the early years. A parent’s age predicts intensity of reading related practices that a child will be exposed to (literacy modeling), capacity in providing academic support as well as personal outlook as a prime educator. Gender on the other hand is a socio-cultural construct which defines societal expectations, beliefs and perceptions a society hold with regards to gender roles and acceptable behavior. This shapes caregivers’ values, concepts, beliefs and perceptions about their role as prime educators with a life time impact. Significant of all is that gender stereotypes can influence joint home literacy practices (how women and men interact with children).

Family size, parental educational level and parental income are pointers of SES situation of families. As put by Nord et al, (2000), parents’ level of educational attainment, occupation and family economic success have significant links with literacy development. Specifically, low income and social risk (McCarty & Franze, 2005 and Forum on Child and Family
Statistics, 2004) have consistently posted the strongest relationship ranging from 43% to 60% with low literacy scores.

With this backdrop, a regression analysis was conducted to determine quality of the prediction of each of the identified demographic variables on early literacy skills. Table 9 below presents a model summary having R, R², adjusted R and standard error of estimate. This was used to determine how well the regression fits the data.

**Table 9: Fitness of the Regression Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.761*</td>
<td>0.576</td>
<td>0.558</td>
<td>5.69096</td>
</tr>
</tbody>
</table>

Predictors: (Constant), age, gender, family size, education level, income level.

R-value was found to be 0.761 which indicated a good level of prediction. The value of R² being the coefficient of determinant gave the proportion of variance in dependent variable (in this case early literacy skills attained) that could be explained by the independent variable. This is the proportion of the variation accounted for by the regression model above and beyond the mean model. The R² – value was found to be 0.576 therefore, the independent variable could explain 57.8% of the variability of the early literacy skills.

In the process of multiple regression computations, ANOVA computed as illustrated in table 10. The F-ratio in ANOVA table was used to test whether the overall regression was fit for the data. Analysis indicated that independent variables could significantly predict attainment of early literacy skills, [F (4, 71) = 32.393, p < .05], meaning that the regression model was found to be fit for the data.
Table 10: Analysis of Variance from Multiple Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regression</td>
<td>4196.584</td>
<td>4</td>
<td>1049.146</td>
<td>32.392</td>
<td>0.023</td>
</tr>
<tr>
<td>Residual</td>
<td>2299.406</td>
<td>71</td>
<td>32.386</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6495.99</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at $\alpha = .05$

Table 11: Estimated Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>87.831</td>
<td>6.384</td>
<td>-13.74</td>
</tr>
<tr>
<td>Age</td>
<td>-0.166</td>
<td>0.062</td>
<td>-0.175</td>
</tr>
<tr>
<td>Gender</td>
<td>0.385</td>
<td>0.042</td>
<td>-0.676</td>
</tr>
<tr>
<td>Family Size</td>
<td>-0.12</td>
<td>0.031</td>
<td>-0.251</td>
</tr>
<tr>
<td>Education</td>
<td>13.209</td>
<td>1.343</td>
<td>0.744</td>
</tr>
<tr>
<td>Income Level</td>
<td>10.784</td>
<td>1.096</td>
<td>0.625</td>
</tr>
</tbody>
</table>

The unstandardized coefficient results above indicate how much attainment of early literacy skills varied with each independent variable when other independent variables are kept constant. For an increase of age by one year, there is a decrease in attainment of children early literacy skills by 0.166 units. This implies that as the age of a parent rises, early literacy abilities tend to become weaker. Therefore, age of a parent is a negative predictor of ELSs of children. It goes then to say, children cared for by younger persons are likely to display better ELSs compared to their counterparts living with elderly people such as grannies. It is possible given that older caregivers’ ability and confidence in supporting literacy development may be diminished.
Results also established a variance in ELSs based on parental gender by 0.385 units. This means that the variance in ELSs that could be accounted for by gender is 0.385 units. On the same note, it was observed that as the number of family members increase by an individual, the early literacy scores of children decreased by 0.12 units. Family size is therefore a negative predictor of ELSs. This is to say children whose parents have larger families are more likely to obtain low literacy scores than those with small family sizes. This is an indicator that large family sizes increase economic burden to families and reduces chances of engaging in asset based literacy practices as well as acquisition of literacy objects.

With regards to education level, results established that as parental educational qualification improves, children’s scores in early literacy rise by 13.21 units. In essence, parental educational qualification is a significant predictor of early literacy skills. That is, children of highly educated parents are highly likely to demonstrate better early literacy outcomes at preschool entry than pre-kindergarteners whose parents have no formal or low educational qualifications. As observed earlier (Hoff, 2006; Raikes et al., 2006; Abouchaar, 2003) this could be attributed to less time being spent on reading storybooks, lack of exposure to books and lack of literacy skills among parents with low educational qualifications.

Parental income was also found to be positively linked to ELS of 3-4-year-old children. That is, as the parents’ income rises, children early literacy outcomes increased by 10.784 units. This is to say children of parent with better pay recorded better early literacy outcomes as compared to their counterparts whose parents fell in the low income brackets. Again this
could be a pointer that such homes are rich in print and literacy objects. It means variance in children’s literacy achievement points towards poverty. As argued earlier (Arasa, 2004; Chatterji, 2006; Evans et al., 2000; Evans 2004; Bracken & Fischel, 2008), there is an alarming likelihood of children from low-income homes and ethnic minorities to read at much lower reading levels or lag behind their counterparts on vocabulary and literacy skills than their peers. This could be attributed partly to less responsive adult communication, increased economic burden and reduced chances of engagement in asset based literacy practices among parents living in poverty.

Based on the multiple regression analysis, social background difference suggests inequalities in reading development (Lee & Burkam, 2002). Aspects like age, gender, family size, education level and income levels of parents significantly predicted early literacy outcomes of 3-4 old children. \([F (4, 71) = 32.393, p < .05]\) but at varying levels. The strongest positive predictors were parental educational qualification and income level while negative predictors were family size and parental age. That is, parental educational qualification and income are better predictors of ELSs development among 3-4 year olds in Kakamega Central Sub county than other factors such as age, gender and family size. In this case, the null hypothesis stating that there is no relationship between Parental Demographic Characteristics and early literacy abilities of 3-4-year-old children in Kakamega Central Sub county Kenya (H0) was rejected.
4.3 Parents Literacy Beliefs (PLBs) and Early Literacy Abilities of 3-4 year Olds

Parent Literacy Beliefs (PLBs) broadly conceived as attitudes, knowledge, goals and values, are thought to shape people’s behavior. Beliefs influence our conceptual understanding and determine assumptions that people have, more so, variations that exist in family reading practices. PLBs take an indirect path but remain a critical factor that either impede or facilitate literacy development. According to Bingham, (2007), parents’ belief systems are proxies or engines for literacy development in children. They determine types of PCLPs that occur in the home environment, the choice and frequency of engagement in such practices within and out-of-school context, availability of print rich environment and parent’s role conception (Heath, 1983; Anderson & Stokes 1984).

According to Baker and Scher, (2002: 59), parents most often convey a perspective that is appropriated by their children, either directly through their words or indirectly through the nature of literacy experiences they provide. Likewise, Okagaki and Bingham (2005), reiterate that one’s reading habit is a reflection of socio-cultural beliefs, views and sometimes their parents’ belief system (Sigel & McGillicuddy DeLisis 2002). This is to say, views of literacy, each of us hold, is profoundly shaped by our home experiences and are a manifestation of individual practices and behaviors exhibited by caregivers.

On this premise the study attempted to explore beliefs and views of parents on value of early literacy skills in reading development, the role of HLE in stimulating reading development and their own role definition as chief supporters of education of young children in becoming literate learners. Relationship between these beliefs and early literacy outcomes was
established. The study also examined reading behavior and habits of caregivers as way of understanding literacy practices and routines within the sampled households. This is discussed in the subsequent section.

4.3.1. Parent /Guardians Reading Behavior and Habits

Data indicating individual literacy activities of caregivers was analyzed in three aspects which were presumed to be popular in a number of households namely: reading, visiting the library, watching literacy-focused television programs. As Purcell-Gates, (2001) posits exposure to literacy modeling by parents, positive attitude and favorable conviction maintained by parents, is likely to influence favorable family literacy behavior, which in turn, produce significant positive influence on reading achievement expressive language and reading interest. A study by Chansa-Kabali (2014) conducted in Rwanda underscored that parents who favorably ascribe to reading as an important activity in their life, produce significant variations on children’s ELSs. The following sections presents results of self-reports of parents/guardians on their routine reading behavior, frequency with which they engaged in the preferred reading activities and the kind of materials they preferred to read. Figure 5 presents individual reading pattern of parents and guardians
Findings above indicate that 57(79.0%) parents/guardians engaged in reading while a significant percent 15(21.0%) reported that they never read at all. Based on this report, reading is embraced in most households. For the minority yet a significant lot of children, who do not experience parents reading, may not show interest and motivation to engage in literacy practices. This is in line with earlier argument of Baker and Scher’s (2002) that children from stimulating backgrounds (defined by frequency of a parent reading and pleasant reading experiences) are expected to demonstrate more or less similar interest in print and literacy related activities, value for literacy and the propensity towards a reading culture, which become the primary route for development into literate adults and lifelong readers.

Going further, the study established the frequency of practice of reading related behavior. This was based on comments of Campbell et al., (2002), that children who are routinely read to, immersed in rich talk about books and related activities, gain from a stream of
benefits that last a lifetime whereas, children with less exposure to books face tougher learning challenges in school and beyond. Data indicating frequency of reading related behavior is presented in the subsequent section.

**Figure 6: Self Reports on Frequency of Reading Behavior by Parents/Guardians.**

Self-reports reveal a favorable reading or literacy culture within the sampled households. Accordingly, parents’ responses on the question: ‘how frequently do you engage in reading and reading related activities’, clearly indicate that out of 57 (79%) parents who reported to be have routine literacy and reading activities (figure 5), only 6 (5.88%) read less (monthly) while a majority 38(71%) read weekly and daily. The same number of parents/ guardians 19 (35.29%) reported that they read daily and weekly while another significant percent 13(23.53%) acknowledged that they occasionally read.
A follow up FGD report noted that indeed households had a variety of unique strategies for supporting their children’s reading development. Twenty-one (38%) caregivers reported that they read bibles more often, 23 (40%) subscribed for newspaper supplies hence read newspapers daily, 7 (13%) read story books and 6(11%) of them read magazines most times. Also evident was that each household was in possession of at least one reading resource and several other opportunities that are important avenues for children’s understanding of print, its components, functions and features.

However, conflicting statements were recorded about parental age as a predictor for reading behavior and culture in the household. Age seemed not to be an accurate explanatory variable in explaining reading practices and behavior in a household. This was confirmed by one grandparent (R6, 66 years old, participant in FGD I), who had this to say:

I read my bible every day and teach my four-year-old grandson that the bible is the source of wisdom. My grandson has learnt God speaks to us through the bible. He takes good care of the bible and handles it well. He also enjoys looking at pictures in the bible, in other books and in wall charts and calendars. He asks me lots of questions based on the pictures and drawings in them … some of them I do not know the names. I always try to answer all his questions because I believe this helps him to learn basics that can be built on when he joins school (FGD Summaries, 22/1/2016)

In deed results show that a majority of respondents irrespective of age were found to embrace the culture of reading and cherished reading as an important activity for leisure and information. In line with arguments of Baker and Scher (2002) and Lynch, et al., (2006), it is anticipated that some of these experiences would not only be reflected in children’s appreciation for books, positive attitude, interest in learning and motivation to read but, could linearly predict children’s reading attitude and preliteracy outcomes. It is also
premised that such interactions and modeling ventures will always send message that reading is a worthwhile family routine leaving children always motivated to manipulate literacy tools and in engage in literacy activities.

4.3.2 Parents’ Beliefs in ELSs as a Prerequisite to Reading Development

Parents’ understanding about the import of ELSs in reading development was sought. As put forth by Dickinson, McCabe, & Essex, (2006), parents who are informed about best practices and cognizant of their role in their child’s learning can become proactive in taking early steps that provide child with necessary tools to succeed in school. In trying to establish Parents Literacy |Beliefs, Parents’ Perceptions of Literacy Learning Interview Schedule (PPLL|) was administered to respondents. This sought their conceptual understanding, views, dispositions, perceptions and values on ELSs as building blocks for reading development in school and beyond. Responses were rated on a 5 point Likert scale, computed based on weighted means and reported by residential location (urban, peri-urban and rural). Classification of beliefs was done on a four-point scale, that is, Strongest Belief (4.1 -5.0) Moderately Strong (3.1– 4.0), Satisfactory Belief (2.1 -3.0) and lastly, Weak Belief (1.0-2.0) as summarized below.
Table 12: Extent of Parents’ Belief in ELSs as Prerequisite to Reading Development (n= 72)

<table>
<thead>
<tr>
<th>Statements of Belief</th>
<th>Frequency</th>
<th>Weighted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading with and to children enhances children’s early literacy development</td>
<td>Rural</td>
<td>14 10 2 1 0</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>12 6 3 1 0</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>14 7 1 1 0</td>
</tr>
<tr>
<td>Frequent exposure of children to literacy materials and activities promote reading</td>
<td>Rural</td>
<td>10 9 5 2 1</td>
</tr>
<tr>
<td>development</td>
<td>Peri-Urban</td>
<td>11 7 2 1 1</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>13 7 1 1 1</td>
</tr>
<tr>
<td>Pre-reading and writing activities enhance early reading development, academic success and better performance in school</td>
<td>Rural</td>
<td>12 10 3 1 1</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>12 7 2 1 0</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>13 7 2 1 0</td>
</tr>
</tbody>
</table>

Table 12; indicates caregivers’ strong approval of the idea of a linear relationship between home literacy opportunities, reading development and academic success in school and beyond. Very strong affirmative belief was recorded on the value of reading with and to the children at mean of 4.41 (rural), 4.32 (peri-urban) and 4.48 (urban). Caregivers equally noted that there is value in literacy activities and materials for reading development. This was approved by parents from rural, peri-urban and urban areas at means 3.93, 4.18 and 4.31 respectively. It means most caregivers recognized the import and features of developmentally appropriate contexts for reading development.

Additionally, parents strongly approved that emergent literacy behaviors, reading development and later academic success are intricately linked. This was avowed at mean scores of 4.15, 4.36 and 4.39 from rural, peri-urban and urban respectively. In brief, irrespective of SES, caregivers appeared to be cognizant of the role of pre-literacy skills,
how to nurture these skills and the values of such skills in predicting later literacy in school and beyond. Perhaps, most important is their acknowledgement that literacy stimulation should begin in early childhood years and is closely linked to the amount of cognitive enrichment and/or verbal stimulation that children experience within households.

This view was expressed by one of the parents (37-year old mother of three children who participated in the FGD 2) bears this out:

I know reading and writing is the beginning of education. My children are not excellent, but I try to help them at home. I have a small reading table at home where I place writing materials, story books, alphabet books and small magazines for my children. Some of these are sold by hawkers in the market and with a few coins you can carry many copies. They contain pictures of objects, sounds, letters and numbers. This are quite useful especially during holidays and after school when my son remains with his sister. Since he insists on writing assignments, the sister likes giving him small tasks so that he is also kept busy. The sister sometimes assists in writing and reading. Generally, he is organized. He knows where to keep his things. I think these small things he does eg pretending to read, scribbling with crayons and sometimes on the walls (although becomes messy sometimes) prepare them for reading and school work. This made him ready to begin preschool (last month) without many problems. He could write his own names (sometimes missing some letters), identify a few sounds and letters in his name, hold books and writing tools in the correct position, make marks as if to draw something, arrange books on the shelf and such like things (FDG Summaries, 22/1/2016).

Results above suggest that there is huge potential in working with parents from all SES in family literacy projects, home-school initiatives and literacy parenting programs. All parents clearly understand the full import of reading as the “gateway” to all other knowledge and students’ life-long learning. The situated expertise and attitude in such households could be tapped for development of family literacy and parenting programs. This would minimize risks of reading failure and increase possibilities of school success. A strong positive belief across board is simply telling that all caregivers could be right on the path of
stimulating reading development of their children and would benefit so much if they had support and tutelage on specific opportunities, knowledge and skills in working with children.

4.3.3 Parents’ Opinions on their Role as First and Prime Educators of Children

Positive outlook, positive role construction and reading ability of caregivers determine how supportive a home is in promoting literacy development. Parents who are informed about best practices and cognizant of their role in their child’s learning can become proactive in taking early steps that provides their children with the necessary tools to succeed in school (Dodici et al., 2003).

On this premise, views, perceptions and ideas of parents and guardians regarding their role as the first educators of their children was gathered. Once again, PPLI scores of self-reports were rated on a Likert scale and computed in means. Beliefs’ were classified in order, from the strongest to the weakest that is, Strongest Belief (4.1 - 5.0), Moderately Strong (3.1– 4.0), Satisfactory Belief (2.1 – 3.0) and lastly, Weak Belief (1.0-2.0) and, presentation done by location (urban, peri-urban and rural) as summarized below.
Table 13: Extent of Parents’ Belief on their Role as the First Educators of their Children (n = 72)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Frequencies</th>
<th>Weighted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents are children’s first teachers/educators with a responsibility to ensure children’s literacy development</td>
<td>Rural 14 9 2 1 1 4.26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 12 7 1 1 1 4.27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 14 8 1 0 0 4.56</td>
<td></td>
</tr>
<tr>
<td>Parents who engage children in conversations promote children’s development of language</td>
<td>Rural 13 9 3 1 1 4.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 11 7 2 1 0 4.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 13 8 1 1 0 4.43</td>
<td></td>
</tr>
<tr>
<td>Parents should engage with children in literacy practices, allow children to ask questions and probe children for feedback</td>
<td>Rural 13 10 2 1 1 4.22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 11 8 1 1 0 4.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 13 9 1 0 0 4.52</td>
<td></td>
</tr>
<tr>
<td>Mothers and fathers have an equal role in a child’s literacy development/Parents who model reading and love for books promote a reading culture in their children</td>
<td>Rural 13 8 2 1 1 3.93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 12 8 1 1 0 4.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 13 9 1 0 0 4.52</td>
<td></td>
</tr>
<tr>
<td>All parents can set a literacy rich/supportive home environment for children</td>
<td>Rural 14 9 2 1 1 4.26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 13 9 0 0 0 4.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 14 9 0 0 0 4.61</td>
<td></td>
</tr>
<tr>
<td>It is mother’s role to ensure that children develop in literacy</td>
<td>Rural 13 8 2 1 1 3.93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-Urban 13 6 1 1 1 4.32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban 14 8 1 0 0 4.56</td>
<td></td>
</tr>
</tbody>
</table>

Table 13 indicates strong affirmative role definition or conceptualization. Parents approved that they are children’s first and most important literacy educators. This had a strong rating of 4.26, 4.27 and 4.56 from rural, peri-urban and urban areas respectively. They equally agreed that there is value in sparing time for joint conversations or communication with
children. This was approved by parents from rural, peri-urban and urban areas at weighted means 4.24, 4.14 and 4.34 respectively.

On gender as a defining factor in supporting literacy practice, they approved that both (mothers and fathers) have a role in ensuring that children develop foundational literacy skills. They believed that development of children’s interest and love for books and reading is possible when both mothers and fathers model reading behavior. This was supported with a mean of 4.22, 4.18 and 4.52 of rural, peri-urban and urban areas households respectively. A stronger affirmative belief was also recorded on the value of parent child conversations and feedback (for example probes, clarifications) as critical avenues for language and literacy development. The value of sparing time for literacy opportunities and engaging children in communication irrespective of SES was recorded at 3.93, 4.41 and 4.52 means for rural, peri urban and urban respectively.

A majority of parents had faith that parents from both low and high income backgrounds can set a supportive home literacy environment. This was approved by rural, peri urban and urban parents at 4.26, 4.60 and 4.61 respectively. However, on whether reading development is squarely a woman’s agenda presented slight variations. Parents from urban and peri-urban settings strongly approved that it is a collective responsibility of the two parents while a less strong belief was recorded by those who lived within the rural setups. This could have been attributed to high levels of illiteracy among a majority of rural women a hint that they may not have the ability to do literacy coaching. As Ngugi (2000) hinted, low level of education among rural parents place them at a disadvantage and renders them
helpless in supporting reading development, as most of them lack confidence and time for supporting such initiatives. This approval was recorded at 3.93, 4.32 and 4.56 from rural, peri urban and urban respectively.

Over and above, PLBs were rated very high across the three locations. This suggests that SES did not have a significant influence on Parents Literacy Beliefs System. From a teacher’s perspective, basic skills possessed by a parent or knowledge of what to do in providing home literacy support is what matters and, perhaps not what parents are (defined by gender, educational qualification, living conditions or income level). Teacher V who participated in FDG III put this into perspective:

A lot of parents regardless of whether they are male or female, educated or not, do very little to support their children in becoming skilled readers. They are ignorant about their role as co-educators and are always blaming teachers for their children’s academic problems. They do not encourage children to do anything at home. They believe teachers are the only ones with skills for teaching reading and writing. Teachers are therefore authority figures in children’s learning and life, and so, parents have lost their place.

She leans back and continues…. This ‘diminished authority’ has led to missed windows of learning opportunities that may be available out of school. Most times children feel that their parents have very little to do with their school work…. It is also true that many parents lack basic skills in helping their children to read. For instance, in sound recognition, most parents confuse the sounds and this brings conflict with what is taught in school. This at times makes teachers shy away from engaging parents in reading development (FGD Summaries, 26/1/2016).
4.3.4 Parents’ Ideas about Home Environment as the First Literacy Resource

In many cultures, the context acknowledged to be having the greatest potential in nurturing academic skills in the early years is the home. Home is not only a setting in which language and literacy is typically first encountered but also the most enduring school with developmentally appropriate settings, materials, experiences and social support from more capable others. Implicit and explicit experience at home encourages early forms of reading and writing to flourish and develop into conventional literacy. The home environment offers lots of opportunities for children to (i) become familiar with literacy materials, (ii) observe literacy activities of others, (ii) independently explore literate behaviors, (iv) engage in joint reading and writing activities with other people and (v) benefit from the teaching strategies that family members use when engaging in literacy activities. Such rudimentary features of literacy have strong links to early literacy skills and in most cases, with later elementary-grade reading achievement. However, not every parent appeared to be cognizant of this fact.

In line with the foregoing, perceptions, views and conceptual understanding of parents on the relative importance of HLE was sought. Based on the statement, “Kindly rate your view with regards to the home literacy environment as the first literacy resource for young children literacy development’, findings are as tabulated in the subsequent sections.
As revealed by table 14, parents had faith that home is the first school for a child and that it prepares a child for reading development. This approval was positive at a rating of 4.04, 4.32 and 4.47 that is rural, peri-urban and urban households respectively. A strong feeling was espoused that homes with a variety of developmentally appropriate resources is just as significant as homes where people model reading behavior. Parents from rural, peri-urban
and urban areas recorded high mean scores of 4.00, 4.45 and 4.57 respectively with regards to this belief.

A moderate to strong belief was reported on the value of joint literacy activities and practices in children communication and reading development at mean of 3.85, 4.36 and 4.43 from rural, peri-urban and urban respectively. Parents/guardians equally approved of joint literacy practices as important predictors of literacy competence at school entry at weighted means of 3.96, 4.27 and 4.39 from rural, peri-urban and urban respectively.

Majority of parents approved that literacy programs in TV and library visits need to be encouraged in households. This was approved by rural, peri-urban and urban parents at 3.93, 4.45 and 4.47 respectively. Finally, regarding children learning as adventure that needed collective responsibility between both partners or parents, it was approved at mean of 3.93, 3.72 and 3.45 respectively. Caregivers also supported the claim that children cannot do well in school without home support having been approved at 3.93, 3.9.1 and 3.9.1 from rural, peri-urban and urban respectively. Precisely, a good number of parents seemed to agree that this role of early development is a shared responsibility between home and school and that parents are chief ingredients in the process.

Teachers’ view on relevance of home school partnership in development of reading ability was gathered by use of FGD guides. Teacher V from FGD VIII commented:

Parents, just as teachers, are in the right position to nurture reading development, even though, only a few parents live up to this expectation. Using basic resources which are all the times at the disposal of the child, parents can engage children in identifying sounds in the environment and
letters, name things, animals and people in the homes and in photographs and read pictures. They can equally initiate conversation; listen to their children’s ideas, take children to visit various places (libraries, zoo, animal orphanage, airports, supermarkets and museum. Opportunities of this kind provide pre-literacy behaviors that are important in reading development.

She looked aside and continued …

Watching educational programs, singing songs, reciting verses, telling stories, discussing pictures on calendars, tins, wall maps and books, all offer opportunities of joint-conversation and improves a child’s oral communication skills. During such engagements parents can correct children’s misconceptions as they learn book and pen handling techniques or imitate behavior of parents during such joint literacy ventures.

These sentiments support Bronfenbrenner’s (1979) idea of proximal processes within literacy contexts. According to him, when children get numerous opportunities to participate in reciprocal interactions such as book talk and joint writing, their literacy development is heavily affected. The fact that parents as well as teachers strongly expressed that there is a linear relationship between ELSs, reading development and school success, reveals that they already recognize literacy as a multiplex and slow developing process with roots at home and branches extending to other environments such as the school. In this sense, they would be much willing to support their children if given means. Likewise, parents’ strong belief that they are potent forces in shaping children’s literacy, and that the home is first primary literacy resource that affords a child the best opportunities for literacy practice, means that they already understand the full import of HLE in enhancing development of this survival skill. There is every indication that they can pull together with teachers to minimize risks of reading failure.
Importantly, parents and guardians irrespective of SES hold favorable expectations and ascribe positively about their role in children’s literacy development. As confirmed earlier by Chansa- Kabali (2004) parents of all walks of life have positive expectations, values in educating their children and care about their children academic success. This appeared to conflict with observations made by Haney and Hill (2004) who noted that parental beliefs correlated with SES which in turn predicted views and expectation of parents.

Going forward the study sought to answer objective two by attempting to determine the relationship between PLBs and ELSs of 3-4 year olds. In order to do this, an estimation of ELSs of 3-4 year-old children at kindergarten entry was first conducted. Indicators of ELSs were categorized into 5 main themes namely: Phonological, Oral Competence, Book Knowledge, Print Motivation and Pre writing competencies. The first presentation is on Phonological and Oral Competencies of 3-4 years old by location.
Table 15: Phonological and Oral Competencies of 3-4 years old Children by Location

<table>
<thead>
<tr>
<th>Early Literacy Skills</th>
<th>Not at All</th>
<th>Moderately Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Peri-Urban</td>
<td>Urban</td>
</tr>
<tr>
<td>Recognizes sounds of words or in environment/Identify beginnings and endings of word</td>
<td>N 13</td>
<td>10 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 40.1</td>
<td>45.5 17.4</td>
<td></td>
</tr>
<tr>
<td>Identifies and discriminates between sounds or syllables words in language</td>
<td>N 14</td>
<td>10 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 51.9</td>
<td>45.5 21.7</td>
<td></td>
</tr>
<tr>
<td>Identifies letters and associates correct sounds with letters/Attends to the</td>
<td>N 16</td>
<td>8 4</td>
<td></td>
</tr>
<tr>
<td>beginning letters and sounds in familiar words</td>
<td>% 59.3</td>
<td>36.4 17.4</td>
<td></td>
</tr>
<tr>
<td>Converse in native language/Discuss pictures with different vocabularies</td>
<td>N 17</td>
<td>7 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 63.0</td>
<td>31.8 30.4</td>
<td></td>
</tr>
<tr>
<td>Knowledge of names/ things in environment/Recognize their own names on books/ print</td>
<td>N 15</td>
<td>11 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 68.2</td>
<td>50.0 30.4</td>
<td></td>
</tr>
<tr>
<td>Talks about shapes, pictures colors, sizes, length, height/Looks at pictures &amp;</td>
<td>N 13</td>
<td>8 7</td>
<td></td>
</tr>
<tr>
<td>retell a story</td>
<td>% 48.1</td>
<td>36.4 30.4</td>
<td></td>
</tr>
<tr>
<td>Asks questions related to pictures of a book/Discuss pictures on magazines/</td>
<td>N 17</td>
<td>8 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% 63.0</td>
<td>36.4 13.0</td>
<td></td>
</tr>
<tr>
<td>Asks, answers questions and makes comments about print</td>
<td>N 16</td>
<td>10 6</td>
<td></td>
</tr>
<tr>
<td>materials/Retells stories or information from books through conversation</td>
<td>% 59.3</td>
<td>45.5 26.1</td>
<td></td>
</tr>
</tbody>
</table>
Table 15 indicates that 13 (40.1%), 10 (45.5%) and 4 (17.4%) of children in rural, peri-urban and urban respectively could not recognize sounds of words/ environmental sounds and identify beginnings and endings of word at all while, 12 (44.4%), 8 (36.4%), 13 (56.5%) of children from rural, peri-urban and urban respectively satisfactorily demonstrated this ability. Another 2 (7.4%), 4 (18.2%) and 6 (26.1%) from rural, peri-urban and urban respectively did this very well. A majority of children from rural households lagged behind in this activity.

With regards to sound recognition, findings show that quite a majority 14 (51.9%), 10 (45.5%) and 5 (21.7%) of children from rural, peri-urban and urban respectively could not identify or discriminate between sounds, syllables or words at all while, 12 (44.4%), 9 (40.9%) and 11 (47.8%) of them from rural, peri-urban and urban respectively did this moderately well. Finally, 1 (3.7%), 3 (13.6%) and 7 (30.4%) of them from rural, peri-urban and urban respectively identified and discriminated sounds /syllables very well. Only one child did very well in sound discrimination. More than a half of children performed poorly in this skill.

On associating letters with their correct sounds and attending to beginning letters/sounds in familiar words, 16 (59.3%) of rural, 8 (36.4%) of peri-urban and 4 (17.4%) of urban children could not do this at all while 9 (33.3%), 10 (45.5%) and 12 (52.2%) of the children from the rural, peri-urban and urban respectively did this moderately well. A further 2
(7.4%), 4 (18.2%) and 7 (30.4%) of the children from the rural, peri-urban and urban respectively did this very well. More of urban children did well in this skill.

Contrary to the notion that children living in the rural are competent in local languages, a majority 17 (63.0%), of children who enrolled in rural preschools could not converse in native language or discuss pictures with different vocabularies at all. A significant number 7 (31.8%). from peri-urban and 7 (30.4%) urban also failed in this aspect. Eight of the children (29.6%), 10 (45.5%), 9 (39.1%) from rural, peri-urban and urban respectively performed moderately well while 2 (7.4%), 5 (22.7%) and 8 (34.8%) from the rural, peri-urban and urban respectively demonstrated this very well. More children from urban than peri and rural had better oral skills.

In rapid naming, slightly more from urban 15 (68.2%), than peri urban 11 (50.0%) and rural 7 (30.4%) could not name things in environment or recognize their names on books or print at all while 11 (40.7%), 9 (40.9%), 12 (52.2%) from the rural, peri-urban and urban respectively faired moderately well while another 1 (3.7%), 2 (9.1%) and 4 (17.4%) of the children from rural, peri-urban and urban did very well. A majority of pre-kindergarteners from urban locations demonstrated better outcomes in rapid naming.

Results indicate that 13(48.1%), 8(36.4%) and 7(30.4%) of children in rural, peri-urban and urban could not look at/talk about shapes, pictures colors, sizes, length, height or looks at pictures and retell a story at all while 14(51.9%), 12(54.5%), 10(43.5%) of children from rural, peri-urban and urban respectively did this moderately well. Another 0 (0.0%), 2(9.1%)
and 6(26.1%) of the children from rural, peri-urban and urban respectively did very well. None of the children sampled from rural households could talk about shapes very well.

Data indicates that 17(63.0%), 8(36.4%) and 3(13.0%) of rural, peri-urban and urban children respectively could not ask questions related to pictures or/and discuss pictures at all, while 9(33.3%), 10(45.5%), 13(56.5%) of them from rural, peri-urban and urban respectively did this moderately well. Another 1(3.7%), 4(18.2%) and 7(17.4%) of them from rural, peri-urban and urban respectively faired quite well. Few rural and peri-urban children demonstrated this ability.

On initiating conversations, 16(59.3%), 10(37.0%) and 6(26.1%) of the children in rural, peri-urban and urban areas respectively could not ask, answer questions or make comments about print and/or retold stories at all while 10 (37.0%), 9(40.9%), and 11(47.8%) of the children from the rural, peri-urban and urban respectively did fairly well. A further 1 (3.7%), 3(13.6%) and 6(26.1%) of the children from rural, peri-urban and urban respectively had done very well.

Results above confirm that SES (defined by area of residence) may be predictive of a child’s ability to identify and distinguish sounds as well as oral communication competence but not really an accurate predictor. In broad sense children from higher SES recorded better scores in rapid naming, narrative, sound discrimination and picture reading. Somehow this converges with literature (Van Steensel; (2006; Ngorosho 2011, Kwizizira 2000, Arasa
2004) who have consistently reiterated that SES is an important predictor variable for vocabulary scores and reading comprehension outcomes in first grade.

The study also estimated children’s understanding of print (symbols, meanings and functions) as well as print motivation (interest, curiosity, motivation and appreciation of print). While print awareness and knowledge is the foundation of early literacy, print motivation is another fundamental goal of early childhood education because learning to read is a hard task that calls for sustained interest, curiosity and motivation (Scarborough & Dobrich, 1994). The following table presents early literacy outcomes of 3-4 year-old children in print motivation and print/book knowledge.
Table 16: Book Knowledge and Print Motivation Outcomes of 3-4 year olds by Location

<table>
<thead>
<tr>
<th>Early Literacy Skill</th>
<th>Not at All</th>
<th>Moderately Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Peri-Urban</td>
<td>Urban</td>
</tr>
<tr>
<td>Enjoy favourite books/have fun with books/curious with books</td>
<td>N 10</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>% 37.0</td>
<td>36.4</td>
<td>17.4</td>
</tr>
<tr>
<td>Demonstrates interest in different kinds of literature/Follow written words line by</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>line/Aware of words in a book</td>
<td>N 11</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% 40.7</td>
<td>31.8</td>
<td>21.7</td>
</tr>
<tr>
<td>Associate and notices letters with their names/Recognizes some few letters of the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alphabet</td>
<td>N 9</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>% 33.3</td>
<td>50.0</td>
<td>30.4</td>
</tr>
<tr>
<td>Identifies at least 5 letters of alphabets similar/letters/sounds/words</td>
<td>N 12</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% 44.4</td>
<td>45.5</td>
<td>26.1</td>
</tr>
<tr>
<td>Records thoughts in form of pictures/Notice different signs, logos, marks/and prints</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in the environment</td>
<td>N 13</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>% 48.1</td>
<td>36.4</td>
<td>39.1</td>
</tr>
<tr>
<td>Make letter shapes on sand, building or floor</td>
<td>N 12</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>% 44.4</td>
<td>40.9</td>
<td>30.4</td>
</tr>
<tr>
<td>Understands that print conveys meaning/Understands conventions, such as print moves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>from left to right and top to bottom of a page.</td>
<td>N 10</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% 37.0</td>
<td>27.3</td>
<td>21.7</td>
</tr>
<tr>
<td>Recognizes words as a unit of print and understands that letters are grouped to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>form words/Recognizes print in everyday life</td>
<td>N 10</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>% 37.0</td>
<td>31.8</td>
<td>17.4</td>
</tr>
<tr>
<td>Turn pages in succession/Open book from left to right/Read/Write from top to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bottom &amp; left to right</td>
<td>N 11</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% 40.7</td>
<td>22.7</td>
<td>26.7</td>
</tr>
<tr>
<td>Pretend to read, look at books/Shows interest in looking at books independently</td>
<td>N 13</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% 48.1</td>
<td>31.8</td>
<td>21.7</td>
</tr>
<tr>
<td>Recognizes how books are read, such as front-to-back and one page at a time, and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recognizes basic characteristics, such as title, author, and illustrator.</td>
<td>N 14</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% 51.9</td>
<td>13.6</td>
<td>13.0</td>
</tr>
</tbody>
</table>
Table 16 indicates that 10 (37.0%), 8 (36.4%) and 4 (17.4%) of the children in rural, peri-urban and urban respectively enjoyed having fun with books. Sixteen (59.3%), 9 (40.9%), 10 (43.5%) from the rural, peri-urban and urban respectively somewhat had fun while another 1 (3.7%), 5 (22.6%) and 9 (39.1%) from the rural, peri-urban and urban enjoyed this so much. Children from rural households recorded lower outcomes than those from peri-urban and urban households on book knowledge and print motivation.

Eleven (40.7%), 7 (31.8%) and 5 (21.7%) of the children from rural, peri-urban and urban preschools respectively demonstrated interest in different kinds of literature/followed written words line by line and were not at all aware of words in a book. Fourteen (51.9%), 11 (50.0%), and 11 (47.8%) of the children from the rural, peri-urban and urban respectively demonstrated moderate interest while only 2 (7.4%), 4 (18.2%) and 7 (30.4%) from the rural, peri-urban and urban areas respectively demonstrated the highest interest. Again children from rural households showed less interest in print in comparison to others.

Findings also show that 9 (33.3%), 11 (50.0%) and 7 (30.4%) of rural, peri-urban and urban children respectively could not associate, notice letters/recognize letters of alphabet at all while 15 (55.6%), 6 (27.3%) and 10 (43.5%) from rural, peri-urban and urban respectively did this moderately well while a further 3 (11.1%), 5 (22.7%) and 6 (26.1%) of the children from the rural, peri-urban and urban respectively performed so well. Peri-urban and urban children had more or less similar outcomes in letter and sound knowledge.
Findings shows that 12(44.4%), 10(45.5%) and 6(26.1%) of children in rural, peri-urban and urban respectively could not identify any letters of alphabet, similar letters/sounds/words at all, while 14(51.9%), 9(40.9%), 12(52.2%) of them from rural, peri-urban and urban respectively did this moderately well while a further 1(3.7%), 3(13.6%) and 5(21.7%) of them from rural, peri-urban and urban in that order did this very well. Children from peri-urban households performed better in alphabetic knowledge than their counterparts from urban and rural locations.

Also, 13(48.1%), 8(36.4%) and 9(39.1%) of children of rural, peri urban and urban respectively could not record thoughts in form of pictures/notice different signs, logos, marks/and prints in the environment at all while 13(48.1%), 8(36.4%), 7(30.4%) of them in this order, did this moderately well while the other 1 (3.7%), 6 (27.3%) and 7 (30.4%) of children from rural, peri-urban and urban respectively performed quite well. Children from urban households outperformed their counterparts in this activity.

Equally, 12 (44.4%), 7 (40.9%) and 7 (30.4%) of children in rural, peri-urban and urban respectively could not make letter shapes on sand, building or floor at all while 13 (48.1%), 10 (45.5%), 10 (43.5%) of them did this moderately well. Another, 2 (7.4%), 3(13.6%) and 6(26.1%) of children in the same order, performed very well. Children from both peri-urban and urban households had almost a similar strength in making letter shapes than their counterparts from rural locations.
On print knowledge and directionality, 10(37.0%), 6 (27.3%) and 5(21.7%) of children enrolled in rural, peri-urban and urban preschools respectively did not understand that print conveys meaning, print moves from left to right and top to bottom of a page at all while 15(55.6%), 12(54.5%), 10(43.5%) of them in this order, faired moderately well. The rest 2 (7.4%), 4 (18.2%) and 7 (30.4%) of them did very well. With regards to print knowledge children from urban households scored slightly better than their peri-urban and far much better than their rural counterparts.

Findings show that 10(37.0%), 7(31.8%) and 4(17.4%) of the children in rural, peri-urban and urban respectively could not recognize words as a unit of print/ words as groups of letters / print in everyday life at all while 14(51.9%), 7(31.8%), and 13(56.5%) from these respectively areas had a fair performance on this aspect. Three 3(11.1%), 2(9.1%) and 6 (26.1%) of them did this very well. In this aspect, a majority of children enrolled in rural preschool that is over 80% performed poorly in this aspect while urban children had more superior skills in this

On book handling skills, 11 (40.7%), 5 (22.7%) and 6 (26.7%) of the children from rural, peri-urban and urban respectively could not turn pages in succession/open book from left to right/read/write from top to bottom & left to right at all, while 15 (55.6%), 5 (22.7%), 13 (56.5%) of them did fairly well and a further 1 (3.7%), 9 (40.9%) and 4 (17.4%) of them in that order did this with a lot of ease. Children enrolled in urban centers again recorded better scores.
On print and book interest, 13 (48.1%), 7 (31.8%) and 5 (21.7%) of children from rural, peri-urban and urban preschools respectively could not at all pretend to read, look at books/show interest in looking at books independently while 12 (44.4%), 7 (31.8%), and 11 (47.8%) of them moderately performed in this skills A lot of interest and motivation in print was recorded among 2 (7.4%), 4 (18.2%) and 7 (30.4%) children from rural, peri-urban and urban areas respectively. Again children from urban preschools demonstrated lots of interest than others.

On book knowledge and concepts, 14 (51.9%), 3 (13.6%) and 3 (13.0%) of children from rural, peri-urban and urban respectively could not at all recognize how books are read (front-to-back and one page at a time,) the basic characteristics (eg title, author, and illustrator) whereas 8 (29.6%), 6 (27.3%), 14 (60.9%) of them in the same order, performed moderately well. The remaining 5 (18.5%), 8 (36.4%) and 6 (26.1%) did so well. Children enrolled in urban locations had better book knowledge than those from rural and peri-urban preschools.

Broadly, children enrolled in urban preschool recorded superior scores in nearly all the code related concepts namely; word recognition, book handing, letter- sound and print knowledge and picture reading. It is safe to conclude that there is a strong relationship between social risk (defined by area of residence) and low literacy, that is, SES is an important predictor for code related competencies among 3-4 year -old children. This converges with research evidence (McCarthy & Franze 2005; Liu & Chandler 2000; Duncan & Seymour, 2000; Arasa 2004) which observed that a significant number of children who come from low
income families, arrive at kindergarten with low levels of ELSs making them less likely to be skilled readers and are more likely to lag behind in cognitive and educational performance.

In tapping the input of educators, a follow up interview was conducted with one teacher who took part in FGD II. This sought the teacher’s ideas on the main pre-literacy skills or domain elements that accurately predict success in reading and academic development. Teacher V commented:

‘A lot of children from low income families come to school with less of early literacy skills than those from high income families. They always need an unequalled attention from preschool teachers to develop some of these skills. ………’

Children who come to kindergarten with knowledge of letters and sounds are able to learn reading quite early, sooner and faster as compared those who join without some of these skills. Other skills that we normally emphasize on during our informal assessments and/or emphasize on at kindergarten entry include keen observation or listening, ability to concentrate, follow simple instructions, read own name or rapid name of objects, people and things in the immediate environment as well as conversation in native language. Most of these skills are crucial in all activity areas during informal conversation and are basic prerequisites for literacy education

The conversation above concur with reports (Passenger, Stuart & Terrell 2000; Storch & Whitehurst 2002; Sénéchal & LeFevre, 2002; Arasa 2004) that there is a high degree of continuity over time for both code-related and oral language abilities and, also that some ELSs are better predictors of reading development than others. In this particular case, rapid naming, oral competence and recognition of environmental sounds were standing out according to the teacher’s remarks. This concurs with large scale multi-national analysis which continue to note that both code-related and vocabulary skills (for example oral
language skills, letter sound knowledge, early book or print knowledge and early phonological skills) are not only highly predictive of reading development but contributes vitally and directly to reading success (NICHD-ECCRN, 2005) As pointed earlier (Flouri & Buchanan, 2004) location remains a key marker variable but it does not itself contribute directly to reading development outcomes. Rather, this happens via other characteristics in the family setups. In this regard null hypothesis (H0): There is no difference in early literacy abilities of 3-4-year-old children enrolled in the urban, peri-urban and rural preschools in Kakamega Central Sub-County, Kenya was rejected.

Finally, the study attempted to estimate prewriting skills of 3-4 olds. The following table presents prewriting outcomes of 3-4-year-old children enrolled in the rural, pre-urban and urban locations of Kakamega Central Subcounty
Table 17: Pre-Writing Skills of 3-4-Year-old Children by Location

<table>
<thead>
<tr>
<th>Early Literacy Skills</th>
<th>Not at All</th>
<th>Moderately Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making letter shapes on sand, building, wall or floor/Including print in their</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>drawing, traces and copies</td>
<td>Rural</td>
<td>Peri-Urban</td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>51.9</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>27.2</td>
<td>37.0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>21.7</td>
<td>45.5</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>14</td>
<td>60.9</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td>17.4</td>
</tr>
<tr>
<td>Examining writing samples/Displaying</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>writing attempts/ join adults in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>writing/Writing familiar words as names</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Peri-Urban</td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>59.3</td>
<td>17.4</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>9.1</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td>56.5</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td>26.1</td>
</tr>
<tr>
<td>Draws/ scribbles letter like features on surfaces/Represent own drawings with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>what they like</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Peri-Urban</td>
<td>Urban</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>48.1</td>
<td>26.1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>22.7</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>26.1</td>
<td>59.1</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td></td>
<td>52.2</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td>21.7</td>
</tr>
</tbody>
</table>
Table 17 indicate that 14 (51.9%), 6(27.2%) and 5(21.7%) children enrolled in rural, peri-urban and urban preschools respectively could not make letter shapes on sand, building, wall or floor/ include print in their drawing, trace and copy letters at all while, 10(37.0%), 10(45.5%), 14(60.9%) of them in that order, did fairly well. Only 3 (11.1%), 6(27.3%) and 4 (17.4%) of the children in that order performed very well. A majority of children across the three residential areas recorded moderate performance on this skill.

Table 17 equally indicate that 16(59.3%), 7(9.1%) and 4(17.4.8%) of the children enrolled in rural, peri-urban and urban preschools respectively hardly examined writing samples/displayed their writing attempts/ joined adults in writing, while 9(33.3%), 11 (50.0%), 13(56.5%) of them demonstrated this interest to some extent. A minority 2(7.4%), 4(18.2%) and 6(26.1%) in this same order showed quite a lot of interest in the above activities. Children enrolled in urban preschools recorded better scores in this aspect followed by those of peri-urban preschools. The worst performance in this aspect was observed among children who lived in the rural location where more than a half (59.3%) did not demonstrate this skill at all.

Fifteen (48.1%), 5(22.7%) and 6(26.1%) of the children enrolled in rural, peri-urban and urban preschools respectively could not draw/ scribble letter like features on surfaces/represent their drawings with what they liked at all, while a good number, 11(40.7%), 13(59.1%), 12(52.2%) from the three locations rural, peri-urban and urban respectively performed moderately well in this skill. The least number 1(3.7%), 4(4.5%) and 5(21.7%) of children in this order did exceptionally well. Preschoolers sampled from peri-urban preschools displayed slightly better on drawing and scribbling than their counterparts from rural and urban households.
Going further, the study went ahead to determine the relationship between Parent Literacy Beliefs and Early Literacy Abilities of 3-4 years olds as stated in objective two. This was realized after a cross tabulation was conducted between Early literacy scores of children in each of the domains estimated and parents’ literacy beliefs. Data is summarized as stipulated in table 18.
Table 18: Crosstab Pearson Product Correlation Coefficient Result between Parents’ Literacy Beliefs and Early Literacy Abilities of 3-4 Years Old

<table>
<thead>
<tr>
<th>Statement of Belief</th>
<th>Writing Skills</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Home is the first school for a child</td>
<td>0.52</td>
<td>0.042</td>
<td>0.64</td>
<td>0.038</td>
<td>0.65</td>
<td>0.037</td>
<td>0.5</td>
<td>0.041</td>
<td>0.54</td>
</tr>
<tr>
<td>Parent child literacy activities in the home are important in children communication</td>
<td>0.67</td>
<td>0.036</td>
<td>0.79</td>
<td>0.027</td>
<td>0.76</td>
<td>0.028</td>
<td>0.62</td>
<td>0.039</td>
<td>0.72</td>
</tr>
<tr>
<td>Activities in the home influences how strong a child joins school</td>
<td>0.81</td>
<td>0.024</td>
<td>0.92</td>
<td>0.019</td>
<td>0.88</td>
<td>0.021</td>
<td>0.51</td>
<td>0.04</td>
<td>0.83</td>
</tr>
<tr>
<td>Homes that have resources enable children to acquire early literacy skills</td>
<td>0.73</td>
<td>0.03</td>
<td>0.84</td>
<td>0.022</td>
<td>0.79</td>
<td>0.027</td>
<td>0.71</td>
<td>0.031</td>
<td>0.79</td>
</tr>
<tr>
<td>The home prepares a child for reading development</td>
<td>0.66</td>
<td>0.037</td>
<td>0.7</td>
<td>0.031</td>
<td>0.74</td>
<td>0.03</td>
<td>0.65</td>
<td>0.037</td>
<td>0.73</td>
</tr>
<tr>
<td>Homes with books, where people read nurture children pre reading skills</td>
<td>0.87</td>
<td>0.021</td>
<td>0.89</td>
<td>0.02</td>
<td>0.78</td>
<td>0.027</td>
<td>0.79</td>
<td>0.027</td>
<td>0.69</td>
</tr>
<tr>
<td>Literacy programmes in TV, Libraries should be encouraged</td>
<td>0.6</td>
<td>0.039</td>
<td>0.71</td>
<td>0.031</td>
<td>0.55</td>
<td>0.041</td>
<td>0.56</td>
<td>0.04</td>
<td>0.57</td>
</tr>
<tr>
<td>Children’s interest can be nurtured by parents’ reading behavior and attitude</td>
<td>0.56</td>
<td>0.04</td>
<td>0.65</td>
<td>0.037</td>
<td>0.83</td>
<td>0.023</td>
<td>0.52</td>
<td>0.042</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Table 18 indicates a moderate positive correlation between the belief that home is the first school for a child and all the five domains of ELSs namely; writing skills, print alphabets, book knowledge, phonological and oral competence [having at least r = .50, p<.05]. In essence, this belief explains at least 25.0% of variations in the five skills. The belief that PCLPs are important in reading development also indicated a moderate positive correlation. Specifically, this explained at least 38.4.0% of variations in the five pre-literacy skills examined [having at least r = .62, p<.05]
The belief that joint home literacy practices influences how strong a child joins school explained 26.0% of variations in the five abilities [with at least r = .51, p<.05]. Parents’ idea that homes with resources enabled acquisition of ELSs also recorded a correlation of [r = .71, p< .05] with the belief explaining 50.4% in all the five ELSs. Home’s role in preparing children for reading development also reported a positive correlation of [at least r = .66, p < .05]. This belief seemed to explain not less than 43.6% of variation in all the five ELSs.

The value placed in books and caregivers modelling reading behavior indicated a positive correlation of [as a minimum of r = .69, p < .05], implying that, any variations in the five ELSs could be justified by at least 47.6% of this belief. Beliefs on value of literacy programs such as TV shows and library visits recorded positive correlations. That is [as a minimum of r = .55, p < .05] where at least 30.3% variations of the children’s ability could be explained by the belief. Finally, a positive correlation [of r = .52 and above, p < .05] was also realized between a belief that children’s interest can be nurtured by parents’ reading behavior attitudes and habits, where 27.0% of the variations in the five ELSs could be explained by this belief.

Based on the results above Parents Belief System account for a considerable variation on ELSs of 3-4 years old, although at varying degrees. There is linear predictive relationship between beliefs of parents and children’s reading development outcomes. In this case, beliefs are facilitative factors, that is, whatever parents think believe in, value, perceive to be important and view worthwhile is perhaps actualized in practice, eventually becoming primary routes for children’s early literacy development. Broadly, parents in Kakamega Central Subcounty ascribe to favorable beliefs about the role of HLE and reading development. This is a potential
that can be tapped in creating a positive literacy environment before school for better early literacy outcomes.

As observed by a study (Chansa-Kabali, 2004) parents with positive literacy attitude, that is, those who favorably ascribe to reading as an important activity in the home had children with better early reading score.

To determine the interactive effect between Parents Belief System and ELSs (writing skills, print alphabets, book knowledge, phonological and oral competence) univariate analysis was conducted out. Obtained results are as shown:
Table 19: Univariate Analysis between Parent’s Belief System and Early Literacy Skills

<table>
<thead>
<tr>
<th>Parent Literacy Belief Component and ELSs</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs on role of parents as the first educators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Writing Skills</td>
<td>0.762</td>
<td>1</td>
<td>0.762</td>
<td>8.442</td>
<td>0.023</td>
</tr>
<tr>
<td>* Print Alphabet and Motivation</td>
<td>0.943</td>
<td>1</td>
<td>0.953</td>
<td>12.736</td>
<td>0.001</td>
</tr>
<tr>
<td>* Book Knowledge</td>
<td>0.058</td>
<td>1</td>
<td>0.058</td>
<td>8.785</td>
<td>0.019</td>
</tr>
<tr>
<td>* Phonological</td>
<td>0.053</td>
<td>1</td>
<td>0.053</td>
<td>6.231</td>
<td>0.035</td>
</tr>
<tr>
<td>* Oral Competence</td>
<td>0.206</td>
<td>1</td>
<td>0.206</td>
<td>10.311</td>
<td>0.014</td>
</tr>
<tr>
<td>Beliefs on value of ELSs in reading development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Writing Skills</td>
<td>0.664</td>
<td>1</td>
<td>0.664</td>
<td>6.983</td>
<td>0.031</td>
</tr>
<tr>
<td>* Print Alphabet and Motivation</td>
<td>0.901</td>
<td>1</td>
<td>0.901</td>
<td>8.809</td>
<td>0.017</td>
</tr>
<tr>
<td>* Book Knowledge</td>
<td>0.593</td>
<td>1</td>
<td>0.593</td>
<td>10.124</td>
<td>0.015</td>
</tr>
<tr>
<td>* Phonological</td>
<td>0.089</td>
<td>1</td>
<td>0.089</td>
<td>5.744</td>
<td>0.042</td>
</tr>
<tr>
<td>* Oral Competence</td>
<td>0.769</td>
<td>1</td>
<td>0.769</td>
<td>9.469</td>
<td>0.016</td>
</tr>
<tr>
<td>Beliefs on role of home environment as primary literacy resource</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Writing Skills</td>
<td>0.063</td>
<td>1</td>
<td>0.063</td>
<td>11.717</td>
<td>0.009</td>
</tr>
<tr>
<td>* Print Alphabet and Motivation</td>
<td>0.882</td>
<td>1</td>
<td>0.882</td>
<td>9.432</td>
<td>0.016</td>
</tr>
<tr>
<td>* Book Knowledge</td>
<td>0.069</td>
<td>1</td>
<td>0.069</td>
<td>10.035</td>
<td>0.014</td>
</tr>
<tr>
<td>* Phonological</td>
<td>0.798</td>
<td>1</td>
<td>0.798</td>
<td>6.092</td>
<td>0.036</td>
</tr>
<tr>
<td>* Oral Competence</td>
<td>0.056</td>
<td>1</td>
<td>0.056</td>
<td>12.912</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Results show a statistically significant association between the belief that primary caregivers have a central role as first and prime educators. This relationship was observed to have effect in all five ELSs [p-values <0.05, d.f = 1] indicating that there is an interactive effect of this belief.
and children early literacy outcomes. There was also a statistically significant difference but a considerably strong impact on the belief that ELSs are predictors and key central correlates reading development This effect was observed in all the five ELSs \( p < 0.05, \text{df} = 1 \) indicating that the impact of this belief on ELSs varied considerably but was quite significant. Results also show a statistical significant effect between parents’ positive approval that the home context is a primary literacy resource and each of the five ELSs \( p < 0.05, \text{df} = 1 \).

Broadly, the interactional effect between PLB system and each of ELSs was statistically significant. As hinted earlier, (Sonnenschein, et al., 2000; Lynch 2002), parents’ literacy beliefs, attitudes and orientations (i) shapes parents’ behavior towards home literacy activities and academic support (ii), may vary considerably from parent to parent but has important implications or significant impact on the development of academic skills among children.

The study concurs with observations of other scholars that whatever parents think about their children education, the notions they have about their roles as primary educators and their conceptual understanding about the role of home environment in reading and academic success of a child, is predictive of their children’s early literacy outcomes (Evans et al., 2004: Senechal & LeFevre, 2002; Weigel, et al., 2006).

Essentially, the study results suggest that Parent’s Belief System although does not directly influence early literacy development, is a crucial part of the HLE that must be investigated in order to adequately understand why other children join kindergarten with basic pre-literacy skills, are ahead of their peers in reading development while others step into the doors of a kindergarten without any of these basic skills. For this matter, the null hypothesis, \( H_0 \), there is
no relationship between Parents’ Literacy Beliefs (PLBs) and early literacy abilities of 3-4-year-old children in Kakamega Central Sub County Kenya was rejected.

4.4 Parent-Child Literacy Practices (PCLPs) Influencing Development of ELSs of 3-4 year-olds

The third objective sought information on joint literacy practices that occurred in homes (Parent-Child Literacy Practices), the frequency with which they occurred, perceived benefits and influences on early literacy outcomes of 3-4 year olds. PCLPs are social practices between children and people, objects and symbols. It is one variable which has received considerable research attention. As put, (Weigel et al., 2007; Finlayson, 2004; Lankshear & Knoebel, 2003), these practices account for as much as 27% of children’s receptive and expressive vocabulary development. They expose children to literacy ventures, that is, more joint attention, adult modeling of new verbal forms, frequent questions, contingent feedback and shared conversations. These act as catalysts for literacy development (Lara-Cinisomo et al., 2004).

Bronfenbrenner, (1995) refers to them as social engagements and discourses that affect children’s understanding, capabilities and dispositions towards language and literacy learning. They include: joint activities with letters, numbers, songs and nursery rhymes, joint reading, painting, drawing, and visit to the library (Cairney, 2002; Matthews & Cobb, 2005). As revealed by Musonda (2011) and Zimba (2011), every household irrespective of SES have activities that enhance children’s oral and literacy development. In this regard, objective three sought to establish the nature, frequency of occurrence and perceived benefits of a selected
practices in the sampled households. Parents self-report on kinds and frequency of engagement in these activities is reported as follows:

**Table 20: Frequency of Engagement in selected PCLPs by Location**

<table>
<thead>
<tr>
<th>Parent Child Literacy Activity</th>
<th>Rural N</th>
<th>Rural %</th>
<th>Peri-Urban N</th>
<th>Peri-Urban %</th>
<th>Urban N</th>
<th>Urban %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching television</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching television</td>
<td>2</td>
<td>7.4</td>
<td>5</td>
<td>18.5</td>
<td>14</td>
<td>51.9</td>
</tr>
<tr>
<td>Talking about books/Discuss pictures on magazines, newspapers/Story telling or news telling/Play word games (tongue twisters, songs nursery poems chanting rhymes, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking about books/Discuss pictures on magazines, newspapers/Story telling or news telling/Play word games (tongue twisters, songs nursery poems chanting rhymes, etc.)</td>
<td>3</td>
<td>11.1</td>
<td>4</td>
<td>14.8</td>
<td>15</td>
<td>55.6</td>
</tr>
<tr>
<td>Read together/Reading aloud signs and labels within the environment/Read books to her/him</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read together/Reading aloud signs and labels within the environment/Read books to her/him</td>
<td>1</td>
<td>37.0</td>
<td>4</td>
<td>14.8</td>
<td>16</td>
<td>59.3</td>
</tr>
<tr>
<td>Writing or Scribbling together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing or Scribbling together</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>18.6</td>
<td>15</td>
<td>55.6</td>
</tr>
<tr>
<td>Going for shopping/Shopping for literacy materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Going for shopping/Shopping for literacy materials</td>
<td>1</td>
<td>3.7</td>
<td>3</td>
<td>11.1</td>
<td>17</td>
<td>63.0</td>
</tr>
<tr>
<td>Playing musical instruments/Playing computer/video games/Play with alphabet toys (e.g., blocks with letters of the alphabet)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing musical instruments/Playing computer/video games/Play with alphabet toys (e.g., blocks with letters of the alphabet)</td>
<td>1</td>
<td>3.7</td>
<td>2</td>
<td>8.7</td>
<td>20</td>
<td>74.0</td>
</tr>
</tbody>
</table>

202
Table 20 indicate that 2(7.4%), 5(22.7%) and 8(34.8%) parents from rural, peri urban and urban households respectively watched TV most times with their children, while 5(18.5%), 12(54.5%) and 10(43.5%) in the same order had occasionally been doing the same with their children. A further 14(51.9%), 3(13.6%) and 4 (17.4%) of the rural, peri- urban and urban parents respectively rarely watched television with their children and 6(22.2%), 2(9.1%) and 1(4.3%) had never watched television with their children. This activity was less common in rural areas.

Book talk, discussing pictures, telling stories and news as well as word play was reported to be more common within 3 (11.1%), 4(18.2%) and 9(39.1%) rural, peri-urban and urban households respectively. Occasionally 4(14.8%), 13(59.1%) and 11(47.8%) parents from rural, peri-urban and urban households respectively involved in book related discussions and word play. However, 15(55.6%), 3 (13.6%) and 2(8.7%) of the parents in the same order rarely did the activity while 5(18.5%), 2 (9.1%) and 1(4.3%) of parents in this order had never engaged in book talk, oral and word play activities with their children. Book talk and activities that stimulated conversations rarely occurred in rural households but were frequently reported in urban households.

Reading aloud books, signs and labels together with children was always done by 1(3.7%) of rural parents, 3(13.6%) peri-urban parents and 7(30.4%) of urban parents. This was reported at moderate levels among 4(14.8%) of rural parents, 14(63.5%) of peri-urban parents and 15(65.2%) parents who lived in urban locations Rare reports of these was noted 16(59.3%), 4(18.2%) and 1(4.3%) from parents who lived in rural, peri-urban and urban areas respectively.
This activity was totally missing in a significant 6 (22.2%) of rural households and in 1 (4.5%) of peri-urban household. No urban household reported the absence of this activity but it remained less common in rural households.

Writing or/and scribbling together was reported among 4(18.2%) and 10(43.5%) of peri-urban and urban households respectively. No parent from the rural households indicated that they engaged in this activity. Parents who occasionally wrote or scribbled together with children were identified to be 5(18.6%), 13(59.1%) and 8(34.8%) from rural, peri-urban and urban locations, in that order. On the other hand, 15(55.6%), 3(13.6%) and 1(4.3%) of parents in this same order could rarely do so. Those who never attempted this activity were 7(25.9%), 2(9.1%) and 1(4.3%) of rural, peri-urban and urban respectively. The activity was almost hard to come in most rural households.

Shopping for literacy materials was common among 1(3.7%) parent from rural area, 3 (13.6%), from peri-urban area and 9 (39.1%) from urban area. It was occasionally being done by 3(11.2%) rural parents, 6(27.3%) from peri-urban and 11(47.8%) from urban areas. Rarely did 17(63.0), 10(45.5%) and 3(1.3%) of the parents in that order engage in this with their children. A few rural 6(22.2%), and peri-urban 2(9.1%) households never reported this activity. A majority of rural households did not expose children to this activity whereas it was common for the urban child.
With regards to manipulating musical instruments, computer/video and alphabetic toys (e.g., blocks with letters of the alphabet) 1(3.7%) parent from rural, 4(18.2%) from peri-urban and a majority of 11(47.8%) urban frequently engaged in this activity. Rural, peri-urban and urban parents who occasionally engaged children in handling these materials were reported as 2(8.7%), 12 (54.5%) and 6(26.1%) respectively. A majority of rural 20(74.0%) and a sizable proportion of 4(18.2%) peri-urban and 5(21.7%) urban, rarely had this joint activity with their children. Another significant number 5(18.5%) rural, 1(4.5%) peri-urban and 1(4.3%) urban households never engaged children in this adventure. This is another joint literacy activity that was not common among those who lived in rural setups but was reported in a few urban and periurban households.

From the analysis urban households, engaged in most of these joint literacy practices while only a small proportion of peri-urban and rural households practiced the same. A majority of rural households missed a number of opportunities. Rural households recorded the least frequency in occurrence of activities such as shopping together, reading to and discussing pictures with a child and scribbling together. The least practiced being joint TV viewing, shopping and playing with electronic gadgets and musical equipment. Activities such as joint: watching TV programs, playing computer games, shopping, reading, writing and book talk were practiced most of the times within urban households. A handful of them were also reported to occur within the peri-urban households. Suffice to say, a number of parents from rural and a sizable proportion from peri-urban households did not believe in, see any value in these activities, were ignorant about the worth or were not in possession of resources that would have facilitated such practices.
Arguing from the presumptions of the Environmental Opportunity Hypothesis this study affirms assertions of scholars (for example Van Steensel, 2006 & Wambiri (2007) who observed a considerable variability in the HLE within SES groups. The two studies, that is, comparative and observational, noted that high SES families have the most stimulating HLE, characterized by joint literacy ventures and abundant educational resources. This also concurs with Wade and Moore’s, (2000), view that children from stimulating home literacy environment have a head start in literacy and an advantage over peers throughout school. It means “catching the children from less stimulating backgrounds before they fall” should be our greatest concern. Home and family literacy stimulation programs could help put such children back on the path of reading development and academic success.

Based on the study findings it is becoming clear that the source of early differences in literacy for young children is the home and therefore it could be the most appropriate context for reducing risks for reading difficulties. More importantly, we can now see why children within homes that provide less stimulating environments and experiences for optimal development of language and literacy, are at the highest risk for reading difficulties than children whose homes are ‘literacy rich’ (Snow et al 1998; Nathan et al., 2004; Lonigan, 2004; Arzubiaga, Rueda & Lilia, 2002). In this regard the study establishes literacy differences observed at school emanate from home and more importantly the basic skills determine whether a child is prepared for reading education or not. As such the null hypothesis stating that there is no difference in early literacy abilities of 3-4-year-old children from literacy rich homes and those from literacy-poor homes in Kakamega Central Sub- County, Kenya was rejected.
To get a clear picture of what aspects of HLE are fundamental, this study further established parent’s opinions on value of a selected Parent-Child Literacy Practices. The results analyzed based on a 3–point Likert scale. Parents stated whether they Agreed, Disagree or not sure about the importance of a selected PCLPs. This is tabled below.

**Table 21: Parents Views on Value of a Selected PCLPs on ELSs Development.**

<table>
<thead>
<tr>
<th>Parent-Child Literacy Practices</th>
<th>Residential Area</th>
<th>Agree</th>
<th>Disagree</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Library visits with the child</td>
<td>Rural</td>
<td>2</td>
<td>7.4</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>13</td>
<td>56.5</td>
<td>5</td>
</tr>
<tr>
<td>Window shopping/shopping literacy materials/household</td>
<td>Rural</td>
<td>0</td>
<td>0.0</td>
<td>21</td>
</tr>
<tr>
<td>goods with the child</td>
<td>Peri-Urban</td>
<td>7</td>
<td>31.8</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>16</td>
<td>69.6</td>
<td>7</td>
</tr>
<tr>
<td>Play sound games/computer games/video games/musical</td>
<td>Rural</td>
<td>1</td>
<td>3.7</td>
<td>18</td>
</tr>
<tr>
<td>instruments to/with the child</td>
<td>Peri-Urban</td>
<td>6</td>
<td>27.3</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>11</td>
<td>47.8</td>
<td>10</td>
</tr>
<tr>
<td>Storytelling/chanting rhymes/singing/Telling news to/with the child</td>
<td>Rural</td>
<td>0</td>
<td>0.0</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>15</td>
<td>65.2</td>
<td>8</td>
</tr>
<tr>
<td>Writing/scribbling with the child</td>
<td>Rural</td>
<td>1</td>
<td>3.7</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>14</td>
<td>60.9</td>
<td>8</td>
</tr>
<tr>
<td>Discussing pictures on magazines, books, newspapers with</td>
<td>Rural</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
</tr>
<tr>
<td>your child</td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>17</td>
<td>73.9</td>
<td>5</td>
</tr>
<tr>
<td>Reciting nursery poems, rhymes and riddles to/with child</td>
<td>Rural</td>
<td>2</td>
<td>7.4</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>18</td>
<td>78.3</td>
<td>5</td>
</tr>
<tr>
<td>Reading with the child</td>
<td>Rural</td>
<td>1</td>
<td>3.7</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>19</td>
<td>82.6</td>
<td>3</td>
</tr>
<tr>
<td>Watching TV with the child</td>
<td>Rural</td>
<td>3</td>
<td>11.1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>6</td>
<td>17.3</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>16</td>
<td>69.6</td>
<td>7</td>
</tr>
</tbody>
</table>

Playing sound, computer, video games and musical instruments with the child was embraced by only a few, 1(3.7%) parent from rural, 6(27.3%) from peri-urban and 11(47.8%) from urban.
In contrast, a majority, 18 (66.7%) of rural, 14 (63.6%) peri-urban and 10 (43.5%) urban parents disregarded this activity. Another 7 (25.9%) rural, 2 (9.1%) peri-urban and 2 (8.7%) urban were undecided. A good proportion of urban parents and a half of peri-urban recognized this activity.

Oral activities (for example storytelling) and their role in early literacy development was a point that no parent from rural embraced while 5 (22.7%) peri-urban and 15 (65.2%) urban parents supported it. Twenty-one (77.8%) of rural parents, 16 (72.7%) of peri-urban and 8 (34.8%) of urban also did not approve of it. No parent was uncertain about its value while 6 (22.2%) of rural and 1 (4.5%) of peri-urban, had no idea about its effect. This activity was not regarded by most parents from rural households than any other group. Many more were undecided about its value yet it was appreciated by other parents as a worthwhile activity.

More or less the same results were recorded with regards to joint writing adventures. It was supported by only 1 (3.7%) parent from rural, 4 (18.2%) peri-urban while it was trusted by a majority, 14 (60.9%) parents from urban. A majority 16 (59.3%) rural, and 14 (63.6%) peri-urban parents disagreed with it as well as a significant proportion 8 (34.8%) from urban. Many, 10 (37.0%) of rural parents were undecided about this activity. This joint venture was perceived to be of less importance by most rural parents than any other group.

Discussing pictures on magazines, books, newspapers and its role in influencing early child literacy ability was embraced by 5 (22.7%) peri-urban parents and a majority 17 (73.9%) of urban parents while there was no parent from rural preschools that supported this perception. On the contrary 6 (22.2%) of parents from rural areas, 15 (68.2%) peri-urban and 5 (21.7%)
urban parents disregarded it. Twenty-one (77.8%) parents from the rural areas, 2(9.1%), peri-urban areas and 1 (4.3%) of urban parents were undecided. A majority of parents from the rural samples were not aware of the importance of book talk or discussing pictures with children while it was embraced by most of urban parents.

Importance of reciting nursery poems, rhymes and riddles with children was a view that was shared by only 2(7.4%) of rural parents 5(22.7%), peri-urban and a majority 18(78.3%) of parents from urban. In contrast, a majority 16 (59.3%) rural parents, 13(59.1%) peri-urban and only 5(21.7%) from urban areas did not see the value of this activity. None of the urban parents was undecided but a significant number 9(33.3%) and 4 (18.2%) from rural and peri-urban respectively were not certain whether it was a worthwhile activity or not.

Reading with a child as a predictor of early literacy ability was acceptable to only 1(3.7%) rural 5(22.7%) peri-urban but to a majority 19(82.6%) of urban parents. Conversely, twenty (74.1%) of rural, 15(68.2%) of peri-urban and only 3(13.0%) of the urban parents disagreed. It was difficult for 7(25.9%) rural parents, 2(9.1%) of peri-urban and 1(4.3%) urban parent to make a decision about the value of this activity.

Watching TV with a child was believed to influence early child literacy ability by only 3(11.1%) of rural, 6(17.3%) of peri-urban, yet a majority 16 (69.6%) of urban parents accorded so much value in this activity. However, a significant number 18(66.7%) of rural, 13(59.1%) peri-urban and 7(30.4%) of urban parents did not identify with it. Those who were not certain
about the worth of this activity were 6(22.2%) and 3(13.6%) from rural and peri-urban respectively.

Based on the above findings, a majority of parents from rural households and a significant proportion from peri-urban either disagreed or were not sure about the value of many literacy practices. They did not place a lot of importance on activities such as: reading together with children, watching educational films and oral play. as avenues for early reading development. In contrast, most of the parents from urban households approved of a numbers of activities such joint TV watching with children, playing games, reading to children and book talk. The activity which was most approved of by urban parents was oral activities which encompassed singings, for instance Sunday school songs and reciting rhymes and poems. By either disregarding or being uncertain about most of these asset based literacy practices, it means most of these activities are not valued hence not practiced in most of the rural and peri urban households.

As has been mentioned , for instance by Arzubiaga et al., (2002) children from rural households may be experiencing less stimulating environments which is not adequate for optimal development of language and literacy skills, and are thus at the highest risk for reading difficulties than those who live in urban settings whose homes are ‘literacy rich’ (Nathan et al., 2004) In this regard area of residence as a marker variable remains an important factor to consider in determining risks in literacy failure though it does not have a very direct relationship with early literacy outcomes. For this reason, the null hypothesis stating that there
is no difference in early literacy abilities of 3-4-year-old children from literacy rich homes and those from literacy-poor homes in Kakamega Central Sub-County, Kenya was rejected.

Further, a determination of the relationship between PCLPs and early literacy outcomes was done by first categorizing PCLPs into six themes (A-F) as presented on Table 22.

**Table 22: Thematic Categories of Parent-Child Literacy Practices**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Watching television, games and computer play /listening to electronic sounds</td>
</tr>
<tr>
<td>B</td>
<td>Talking about books/Discuss pictures on magazines, newspapers /Story telling or news telling/Play word games (tongue twisters, songs nursery poems chanting rhymes, etc.</td>
</tr>
<tr>
<td>C</td>
<td>Read together/Reading aloud signs and labels within the environment/Read books together</td>
</tr>
<tr>
<td>D</td>
<td>Writing or Scribbling together</td>
</tr>
<tr>
<td>E</td>
<td>Going for shopping/Shopping for literacy materials</td>
</tr>
<tr>
<td>F</td>
<td>Playing musical instruments/ computer /video and alphabet toys (e.g., blocks with letters of the alphabet)</td>
</tr>
</tbody>
</table>

Based on the above themes (Table 22) analysis of variance was conducted between Parent-Child Literacy Practices and early literacy outcomes. The results obtained were as captured in Table 23.

**Table 23: ANOVA Results on the Effect of Parent-Child Literacy Practices on ELSs**

<table>
<thead>
<tr>
<th>Parent Child Literacy Practice Vs Early Literacy Abilities</th>
<th>Component</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme A* Phonological Awareness</td>
<td>B</td>
<td>0.533</td>
<td>1</td>
<td>0.533</td>
<td>8.560</td>
<td>0.042</td>
</tr>
<tr>
<td>Theme B* Oral communication</td>
<td>B</td>
<td>0.707</td>
<td>1</td>
<td>0.707</td>
<td>7.704</td>
<td>0.030</td>
</tr>
<tr>
<td>Theme C* Alphabet Knowledge</td>
<td>B</td>
<td>0.349</td>
<td>1</td>
<td>0.349</td>
<td>8.664</td>
<td>0.047</td>
</tr>
<tr>
<td>Theme D* Book Knowledge and concepts</td>
<td>B</td>
<td>0.811</td>
<td>1</td>
<td>0.811</td>
<td>7.681</td>
<td>0.032</td>
</tr>
<tr>
<td>Theme E* Print Motivation</td>
<td>B</td>
<td>0.321</td>
<td>1</td>
<td>0.321</td>
<td>8.234</td>
<td>0.045</td>
</tr>
<tr>
<td>Theme F* Early Writing Ability</td>
<td>B</td>
<td>0.852</td>
<td>1</td>
<td>0.852</td>
<td>7.718</td>
<td>0.029</td>
</tr>
</tbody>
</table>
Results show a significant effect of PCLPs categorized under Theme A on phonological outcomes of the children, [p-values < .05, d.f = 1.] indicating that there was an interactive effect between these practices and phonological skills of children. Equally, all the PCLPs under theme B recorded statistical significant effect on communication ability [p-value< .05, df=1] revealing that these practices had positive interrelation effect with oral communication competence.

Similarly, PCLPs categorized under theme C and D were found to have statistical significant effect on alphabetic knowledge, book concept and awareness [p-value< .05, df =1] revealing that practices such as reading together and book talk had positive interrelation effect with children’s ELSs, specifically, alphabet knowledge, book knowledge and concepts. Finally, the themes categorized under F such as playing musical instruments/ computer /video and alphabet toys (e.g., blocks with letters of the alphabet) also recorded a statistical significant relationship and a positive interrelation effect with children’s early writing outcomes [p-value< .05, df=1].

These practices had a direct influence on pre-writing skills. No category failed to record a significant effect on any of the early literacy skills examined. In this the study concurs with the EPPE report which identified a range of activities (eg manipulative, oral, outdoor and writing) associated with positive pre-reading and prewriting outcomes at 3-7 years.

Equally these results validate positions shared by Arasa, (2004), Wambiri, (2007) and Hood et al., (2008) who expressed that although parent education, occupation, and income are related to children’s reading outcomes, the actual characteristics of the atmosphere that is created by the parents may be much more important. Flouri and Buchanan, (2004), in support underscored that parental involvement in their child’s literacy practices should be the variable of interest in
the home as is a more powerful force than other family background variables, such as social class, family size and level of parental education.

4.5 Home Literacy Resources (HLRs) and Influence on ELSs of 3-4 year-Olds

An interactive and stimulating literacy home environment is one with ‘literacy objects’ for use in daily reading, extended discourse, language play, manipulation and book talk among others (Burns et al., 1999; IRA & NAEYC 1998). According to McGee & Richgels, (2007), any meaningful literacy engagement with children, is only possible when HLE is stuffed with high quality children’s books and adequate supplies of materials such as, magazines, newspapers, picture, rhyming, alphabetic, story and chapter books. These are instrumental at story and book talk time. In support, Ferreiro, & Teberosky, (1982), concludes that literacy-rich environments, both at home and at school, are important in promoting literacy and preventing reading difficulties. In their study, the duo noticed that the existence of sufficient resources and a wide range of literacy materials at home enable children to have greater opportunities to learn about identifying letters on labels, writing letters and identifying words.

Based on the relative importance of HLRs in shaping reading development, this study attempted to examine types of literacy resources that were available in the surveyed households. Parents reported on the occurrence/ availability of a selected Home Literacy Resources (HLRs) The sub-section that follow provides a distribution of HLRs by residence.
Results indicate that just a few homes had orderly inviting and comfortable reading areas for family reading. This was confirmed by 7(25.9%) parents from rural, 8(36.4%) peri-urban and 13(56.5%) from urban. A good proportion 48(66.6%) out of 72 parents indicated that this facility was lacking in their homes. Availability of books of different kinds, charts and puzzles was approved by a minority, that is ,6(22.2%) of rural parents, 7(31.8%) of peri-urban but a majority 14(60.9%) of urban parents. Again a majority 43(59.7%) out of the possible 72 parents indicated that such literacy resources were not existing in their homes.
Printed materials, drawing tools and materials for sorting, classifying, sequencing, seriation were available in a few households as indicated by another minority, 9(33.3%) rural, 7(31.8%) peri-urban but more 15(65.2%) of urban parents. In fact, a majority 18 (66.7%) rural, 15(68.2%) peri-urban and 8(34.8%) urban households, totaling to 41(56.7%) out of the possible 72 denied having such resources in their homes.

The situation was more or less similar to availability of calendars, cards, magazines, newspapers, journals and articles, atlases, dictionaries, maps and other (for instance magazines, flyers, photo albums, catalogues). These were available in a minority 6(22.2%), 10(45.5%) and were present in a majority 16(69.6%) of urban households. A total of 32(44.4%) out of 72 representing less than a half of the parent population from rural, peri-urban and urban locations had these resources. A majority, 21(77.8%) rural ,12(54.5%) peri-urban and 7(30.4%) from urban, totaling to 40(55.6%) out of the possible 72 denied having such resources in their homes.

Colorful pictures or flowers, caps, tops, different puzzles, family computers, video tapes, CDs VCDs and other electronic gadgets was indicated to be available within 7(25.9%) of rural households, 9(40.9%) peri-urban and was reported in a good proportion of urban households 12(52.2%). A majority of parents were not in possession of a good number of these resources. These were 20 (74.1%) rural, 13(59.1%) of peri-urban and 11(47.8%) of urban parents. This means most parents, 44(61.1%) out of 72 parents from all the three locations indicated that this facility was lacking in their homes.
An inviting and comfortable area for reading was uncommon in many rural and peri-urban households. Only 13 urban households constituting 56.5% reported that they had orderly inviting and comfortable reading area or room which had tables and child-sized chairs. This was found to be the highest possible number of households in possession this literacy resources. Only 7(25.9%) and 8(36.4%) rural and peri-urban households respectively, reported that they had an orderly inviting reading area. This left good proportion 44(61.1%) out of 72 parents from all the three locations not having this space.

This trend was noted with other resources. Printed clothes writing, sorting, classifying, sequencing, seriation pets or toys, such as dolls or stuffed animals, carton boxes, containers and tins with labels were indicated to be lost common in urban households. Less of these were found in rural and peri-urban households. Only a total of 29 (40.27%) out of 72 of rural, peri-urban and urban parents indicated that they were in possession of these resources whereas 43(59.72%) of parents of the entire population 72 from three locations indicated that these resources were not available in their households.

Based on the findings, a good proportion of families were not in possessions of ‘literacy objects’ for use in daily literacy practices. Materials such as magazines, newspapers, picture, rhyming, alphabetic, story and chapter books were uncommon in most households and in particular, rural and peri-urban households. However, a small proportion of urban families indicated having some of these valuable resources. Suffice to say, most homes sampled did not promote meaningful literacy engagement with children, because any meaningful literacy engagement is only possible with sufficient and wide range of literacy materials (McGee & Richgels, 2007)
To ensure clarity on perhaps why parents did not possess literacy items and also the worth they attached on to literacy objects, the study went further and sought opinions of parents on effectiveness of a selected HLRs in promoting reading development. The views were analyzed on a Likert scale indicating whether they viewed them very Effective, Moderately Effective, Less Effective and Not Effective in promoting reading readiness. Summaries of views are indicated below:

**Table 25: Parents’ Views on Effectiveness of Selected HLRs in Reading Development.**

<table>
<thead>
<tr>
<th>Home Literacy Resource</th>
<th>Level of Effectiveness of HLR</th>
<th>V. E.</th>
<th>M. E.</th>
<th>L.E.</th>
<th>N.E.</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading materials e.g. picture books, chapter books, atlases, dictionaries, magazines, and newspapers</td>
<td>Rural</td>
<td>4</td>
<td>14.8</td>
<td>6</td>
<td>22.2</td>
<td>7</td>
<td>25.9</td>
<td>10</td>
<td>37.0</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>5</td>
<td>22.7</td>
<td>6</td>
<td>27.3</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>8</td>
<td>34.8</td>
<td>7</td>
<td>30.4</td>
<td>5</td>
<td>21.7</td>
<td>3</td>
<td>13.0</td>
</tr>
<tr>
<td>Cloth and cardboard</td>
<td>Rural</td>
<td>3</td>
<td>11.1</td>
<td>6</td>
<td>22.2</td>
<td>8</td>
<td>29.6</td>
<td>9</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>5</td>
<td>22.7</td>
<td>5</td>
<td>22.7</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>9</td>
<td>39.1</td>
<td>6</td>
<td>26.1</td>
<td>5</td>
<td>21.7</td>
<td>3</td>
<td>13.0</td>
</tr>
<tr>
<td>Home Library</td>
<td>Rural</td>
<td>2</td>
<td>7.4</td>
<td>5</td>
<td>18.5</td>
<td>8</td>
<td>29.6</td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>4</td>
<td>18.2</td>
<td>6</td>
<td>27.3</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>7</td>
<td>30.4</td>
<td>7</td>
<td>30.4</td>
<td>5</td>
<td>21.7</td>
<td>4</td>
<td>17.4</td>
</tr>
<tr>
<td>Encyclopedias, an atlas, the Bible, and even comic books</td>
<td>Rural</td>
<td>3</td>
<td>11.1</td>
<td>5</td>
<td>18.5</td>
<td>6</td>
<td>22.2</td>
<td>13</td>
<td>48.1</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>5</td>
<td>22.7</td>
<td>5</td>
<td>22.7</td>
<td>6</td>
<td>27.3</td>
<td>6</td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>10</td>
<td>43.5</td>
<td>6</td>
<td>26.1</td>
<td>4</td>
<td>17.4</td>
<td>3</td>
<td>13.0</td>
</tr>
<tr>
<td>Paper, markers and crayons</td>
<td>Rural</td>
<td>2</td>
<td>7.4</td>
<td>4</td>
<td>14.8</td>
<td>6</td>
<td>22.2</td>
<td>15</td>
<td>55.6</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>5</td>
<td>22.7</td>
<td>6</td>
<td>27.3</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>9</td>
<td>39.1</td>
<td>7</td>
<td>30.4</td>
<td>5</td>
<td>21.7</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>Alphabet blocks and puzzles letter-shaped cookie cutters, letter stamps and stickers</td>
<td>Rural</td>
<td>3</td>
<td>11.1</td>
<td>4</td>
<td>14.8</td>
<td>7</td>
<td>25.9</td>
<td>13</td>
<td>48.1</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>5</td>
<td>22.7</td>
<td>5</td>
<td>22.7</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>11</td>
<td>47.8</td>
<td>5</td>
<td>21.7</td>
<td>5</td>
<td>21.7</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>DVDs that feature rhyming and children’s books on tape or CD</td>
<td>Rural</td>
<td>1</td>
<td>3.7</td>
<td>5</td>
<td>18.5</td>
<td>9</td>
<td>33.3</td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>2</td>
<td>9.1</td>
<td>5</td>
<td>22.7</td>
<td>7</td>
<td>31.8</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>8</td>
<td>34.8</td>
<td>8</td>
<td>34.8</td>
<td>6</td>
<td>26.1</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>Colorful picture or a vase of flowers</td>
<td>Rural</td>
<td>3</td>
<td>11.1</td>
<td>3</td>
<td>11.1</td>
<td>4</td>
<td>14.8</td>
<td>17</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>Peri-Urban</td>
<td>4</td>
<td>18.2</td>
<td>4</td>
<td>18.2</td>
<td>5</td>
<td>22.7</td>
<td>9</td>
<td>40.9</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>9</td>
<td>39.1</td>
<td>8</td>
<td>34.8</td>
<td>6</td>
<td>26.1</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Table 25, reveal that a majority of parents from urban households, that is three quarters (64.8%) strongly and moderately approved that picture books, chapter books, atlases, dictionaries, magazines, and newspapers were very effective and moderately effective in enhancing literacy abilities. In contrast, a majority of parents from peri-urban and rural households believed that these resources were either least effective or not effective at all. Even though a comparatively better section of urban parents viewed them effective while, a lot more of rural parents 10(37.0%) did not have faith on most of these materials, less than a half of all possible 72 parents opined that they were either less effective or not effective at all. This situation was similar to cloths and cardboard where the possible parents totaling to 72, had only 33 parents who opined that they were either effective or very effective.

With regards to effectiveness of encyclopedias, an atlas, the bible, comic books more than half of parents comprising rural, peri-urban and urban preschools believed in their effectiveness in enhancing ELSs, even though more of urban than any other parents deemed them more effective. On the issue of home library or reading corner, less than a half the parents’ population recognized its essence. Out of the possible 72 only 30 parents viewed library as an essentially facility in the home environment for literacy development. However, more of urban parents rated it moderately effective than the other populations.

With regards to papers, markers and crayons and prewriting resources, less than half of the parents viewed these as important in early literacy development. Again nearly a half of urban parents approved of these resources as either effective or moderately effective in promoting ELSs of 3-4 year olds. On the other hand, alphabet blocks and puzzles letter-shaped cookie
cutters, letter stamps and stickers are resources which received recognition and disapproval in equal measure. A half of the parents valued them as effective and moderately effective while the same proportion identified them as less effective and not effective at all in promoting ELS of young children.

DVDs that feature rhyming and children’s books on tape or CD as well as other electronic resources was approved by less than a half of the parent’s population to be effective and moderately effective with a slight majority feeling that they are not effective at all for reading development. The final group of literacy resource which was colorful picture or a vase of flowers received approval from less than half the parents to be either effective or very effective with a majority feeling that they were not at all and less effective in literacy promotion in the early years.

As observed by Mc Gee and Richgels (2007) although all parents are expected to provide sufficient, relevant and a wide range of literacy resources such as books (pictures, short stories, chapter, rhyming, alphabet), magazines, newspapers and writing tools at home that permit children to have greater opportunities to learn about identifying letters on labels, writing letters and identifying words, such literacy resources were less common in a majority of households. They were noted to be available in a few urban and peri-urban households while rural households had the least of these resources. In this regard, SES is viewed as not only a predictor of availability of literacy resources for literacy interaction at home, but also a determinant of perceptions, expectations and views parents hold about the effectiveness of such resources in promoting literacy development.
Going forward objective four sought to investigate the relationships between HLRs and ELSs of 3-4 year olds. To determine this the present study examined this using ANOVA. First, thematic categories of literacy resources were created. Based on the thematic categories, univariate analysis was conducted to determine the link between Home Literacy Resources and Early Literacy Outcomes of 3-4 year olds. The following table presents the thematic categories of HLRs:

**Table 26: Categorized Themes of HLRs available in the Households**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Orderly inviting and comfortable reading area or room with table or surface readily available for writing or drawing and child-sized chairs</td>
</tr>
<tr>
<td>H</td>
<td>Textbooks or books in the family, Alphabet and sound charts, Alphabet book, Picture books, Fairy tales books, Rhyme books, Alphabet toys (e.g., blocks with letters of the alphabet), Pads of paper, notebooks, Alphabet puzzles or puzzles with letter sounds and word</td>
</tr>
<tr>
<td>I</td>
<td>Printed Cloth and cardboard, Drawing books, Crayons and pencils, Charcoal, pastels and chalk (thick &amp; thin), Materials for sorting, classifying, sequencing, seriation, Pets or toys, such as dolls or stuffed animals, Carton boxes, Containers and tins with labels.</td>
</tr>
<tr>
<td>J</td>
<td>Calendars success cards greeting cards etc, Magazines Newspaper and newsprint, Journals and articles, Calendars – wall &amp; personal, Atlas, maps, picture dictionary, Charts of color and shapes, Charts, maps, Other (magazines, flyers, photo albums, catalogues etc</td>
</tr>
<tr>
<td>K</td>
<td>Colorful picture or a vase of flowers, Bottle caps, tops .letter puzzles, number puzzles, Family computers, Video tapes, CDs VCDs for computer games and nursery rhymes, Computer/play station with alphabet games</td>
</tr>
</tbody>
</table>

Based the above categories computations based on ANOVA was done to show the interactive effect between HLRs and ELSs of 3-4 year olds. Results are as presented below:
Table 27: Univariate Results Showing the Relationship between HLRS and Early Literacy Outcomes of 3-4 year Olds

<table>
<thead>
<tr>
<th>Home Literacy Resource</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme G* Oral &amp; Phonological Awareness</td>
<td>0.580</td>
<td>1</td>
<td>0.580</td>
<td>6.633</td>
<td>0.039</td>
</tr>
<tr>
<td>Theme H * Alphabetic Knowledge</td>
<td>0.769</td>
<td>1</td>
<td>0.769</td>
<td>5.547</td>
<td>0.036</td>
</tr>
<tr>
<td>Theme I * Book Knowledge and Concepts</td>
<td>0.324</td>
<td>1</td>
<td>0.324</td>
<td>8.108</td>
<td>0.044</td>
</tr>
<tr>
<td>Theme J * Print Motivation</td>
<td>0.898</td>
<td>1</td>
<td>0.898</td>
<td>4.879</td>
<td>0.024</td>
</tr>
<tr>
<td>Theme K * Early Writing Ability</td>
<td>0.293</td>
<td>1</td>
<td>0.293</td>
<td>9.177</td>
<td>0.048</td>
</tr>
</tbody>
</table>

Data sought on the impact of HLRs on development of ELSs by use of ANOVA revealed statistical significant result between HLRs and ELSs, [p-values < .05, d.f = 1] pointing out that there was an interrogational effect of these resources on ELSs. Theme G resources which constituted orderly inviting and comfortable reading area or room with table or surface readily available for writing or drawing and child-sized chairs statistical significant relationship with ELSs [p-value < .05, df=1] indicating that availability of these resources had a positive effect on ELSs. Availability of textbooks or books in the family, alphabet and sound charts, alphabet book, picture books, fairy tales’ books, rhyme books, alphabet toys (e.g., blocks with letters of the alphabet), pads of paper, notebooks, alphabet puzzles or puzzles with letter sounds and word also had statistical significant relationship with children early abilities [p-value < .05, df=1], this a proof that when the quantity of the resource increase then the child early literacy ability is strengthened.
Printed cloth and cardboard, drawing books, crayons and pencils, charcoal, pastels and chalk (thick & thin), materials for sorting, classifying, sequencing, seriation such as dolls or stuffed animals, carton boxes, containers and tins with labels were some of the resources that parents availed to their children at home. The ANOVA revealed that there was a statistical significant relationship with children early abilities [p-value< .05, df= 1], exposing that these resources were directly linked to the early children abilities.

Availability of calendars success cards greeting cards etc, magazines newspaper and newsprint, journals and articles, calendars, charts of color and shapes, charts, maps, other (magazines, flyers, photo albums, catalogues etc) through ANOVA revealed a statistical significant relationship with children early abilities [p-value< .05, df=1], interpreting that availability of these resources were directly proportional to the early children abilities.

It was the same with availability of colorful picture or a vase of flowers, bottle caps, tops. letter puzzles, number puzzles, family computers, Video tapes, CDs VCDs for computer games and nursery rhymes, computer/play station with alphabet games where ANOVA results showed that availability of these resources had a statistical significant relationship with children early abilities [p-value< .05, df=1], showing that these resources were directly connected to the early children abilities.

These results of this study validate the positions shared by Arasa, (2004) Wambiri, (2007) and Hood, Conlon and Andrews (2008) who maintain that although parent education, occupation, and income are related to children’s reading outcomes, the actual characteristics of the
atmosphere that is created by the parents in this case through availability of literacy objects for meaningful literacy engagement, may be much more important. This validates positions of Wambiri, (2007) who noted that homes that lacked a variety, adequate print exposure and resources for children’s manipulation had pre-kindergarteners who had immature pen handling and poor print knowledge and awareness and that of large scale studies on parenting practices (National Research Council, 2000; NICHD, 2008) which observed that young children reared in homes with more stimulating, age-appropriate books and toys show faster acquisition of language skills. As such, home literacy resources are noted to be a more powerful force than other family background variables, such as social class, family size and level of parental education.
CHAPTER FIVE
SUMMARY OF THE FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.0 Introduction
This chapter presents a summary of results arising from an investigation on how Home Literacy Environment influences the development of early literacy abilities of 3-4-year-old children in Kakamega Central Sub-County Kenya. The summary outlines the key findings and conclusions presented in line with research objectives and study hypotheses. Recommendations are also suggested in light of the findings. The final aspect of this chapter highlights potential areas for further inquiry informed by ‘lingering questions’ and gaps emanating from the results. It also suggests recommendations.

5.1 Summary of the Study
The study attempted to establish the mechanisms through which home literacy environment influence the development of early literacy abilities amongst 3-4 year olds in Kakamega Central Sub County, Kenya. In so doing it first accounted for early literacy skills of 3-4 years old children at preschool entry as a basis for making a prediction of their literacy development trajectory. The study was guided by four research questions that is: to determine the extent to which parental demographic characteristics predict early literacy outcomes, to establish the relationship between parents’ literacy beliefs and early literacy abilities, to examine parent child literacy practices that influence development of early literacy abilities and to investigate the relationship between home literacy resources and early literacy abilities of 3-4 year old
children in Kakamega Central Sub County Kenya. It also statistically tested the following four hypotheses:

H₀: There is no relationship between Parents’ Demographic Characteristics and early literacy abilities of 3-4-year-old children in Kakamega Central Sub- County, Kenya.

H₁: There is no relationship between Parents’ Literacy Beliefs (PLBs) and early literacy abilities of 3-4-year-old children in Kakamega Central Sub County Kenya.

H₂: Parent Child Literacy Practices (PCLPs) do not influence development of early literacy abilities of 3-4-year-old children in Kakamega Central Sub County Kenya.

H₃: There is no difference in early literacy abilities of 3-4-year-old children enrolled in the urban, peri-urban and rural preschools in Kakamega Central Sub- County, Kenya.

The study applied Mixed Method Research by combining cross-sectional survey and correlation study designs. It targeted pre-kindergarteners/ 3-4 year olds with first preschool experience and their parents/ guardians as well as class teachers. Data was collected using four main research instruments: Questionnaires for Parents/Guardians, Home Educational Resource Checklist, Focus Group Discussion Guide for preschool teachers and Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Both probability and non-probability sampling techniques were adopted in identification of study site and respondents. From a population of 147 preschools, a sample of 24 preschools (12 privately owned and 12 public attached) was drawn, in which 72 children (3-4 year olds), 72 parents/ guardians and 24 preschool teachers were randomly picked for the study. Both primary and secondary sources of data were consulted. Qualitative data was transcribed, categorized and reported according to emergent
themes, and presented using simple descriptive means and backed up by narratives and excerpts. Quantitative data was analyzed through descriptive and inferential means. From the analysis, the following findings were made:

5.1.1 Parental Demographic Characteristics as Predictors of Early Literacy Outcomes of 3-4 year old children.

Data from the multiple regression analysis confirm that social background difference suggests inequalities in reading development. Aspects like age, gender, family size, education level and income levels of parents significantly predicted early literacy outcomes of 3-4 old children. $[F(4, 71) = 32.393, p < .05]$ but at varying levels and directionality. The strongest positive predictors were parental educational qualification and income level while negative predictors were family size and parental age. Parental educational qualification and income were noted to be better positive predictors of ELSs development among 3-4 year olds in Kakamega Central Sub county than the other factors such as age, gender and family size. It means that the rise in educational or income of parents predicts higher literacy outcomes whereas the rise in family size and parental age is highly likely to predict low literacy scores among 3-4 year olds. For that matter, the null hypothesis that stated that there is no relationship between Parental Demographic Characteristics and early literacy abilities of 3-4-year-old children in Kakamega Central Sub county Kenya ($H_{01}$) was rejected.

5.1.2 Parents’ Literacy Beliefs and Early Literacy Abilities of 3-4-year-Old Children

Irrespective of SES, parents seemed to hold favorable expectations and ascribed positively about their role in children’s literacy development. Caregivers appeared to be cognizant of the value of pre-literacy skills in reading development as well as the role of the home where early
forms of literacy get their roots before blowing up into the other contexts like the school and beyond. Perhaps, the most important revelation from this research is that parents from all walks of life, that is, sampled from rural peri-urban and urban preschools of Kakamega Central Sub-county all strongly or moderately affirmed that (a) they are their children’s prime educators (b) literacy stimulation must begin in early childhood years and (c) is closely linked to the amount of cognitive enrichment and verbal stimulation that children are exposed to. The results indicate that there is huge potential in working with parents from all SES in family literacy projects, home-school initiatives and literacy parenting programs that are aimed at raising readers or in promoting reading readiness skills. This is because most of parents already clearly understand the full import of reading as the “gateway” to all other knowledge and students’ life-long learning. They may only be in need of skills and knowledge on how to effect this at household levels.

So to speak, the strong positive beliefs (Table 15, 16 and 17) are simply telling that parents/guardians would have been right on the path of stimulating reading development of their children if they had been supported and tutored on specific opportunities, knowledge and skills on how to nurture reading development early enough before kindergarten entry. Involving such parents who clearly understand the full import of reading as the “gateway” to all other knowledge, students’ life-long learning is bound to yield immeasurable gains to children whose reading failure and difficulties would be minimized and probability of school success enhanced. This could be quite helpful to children who live in low income families or disadvantaged backgrounds.
Parents Belief System accounted for a considerable variation on ELSs of 3-4 years old, although at varying degrees. A linear predictive relationship between beliefs of parents and children’s early reading development outcomes was noted. Beliefs are therefore identified as facilitative factors, that is, whatever parents think believe in, value, perceive to be important and view worthwhile seems to have been actualized in practice, eventually becoming primary routes for children’s early literacy development.

Specifically, a statistically significant effect or relationship between PLB system and each of ELSs also recorded. This means that parents’ literacy beliefs, attitudes and orientations may have (i) shaped parents’ behavior towards home literacy activities and academic support, and, (ii) led to a considerably variability on aspects examined within the HLE. Important of all is that the beliefs had a significant impact on the development of academic skills among children. The stronger the belief the better the ELS scores. In this regard, the study confirms that whatever parents think about their children education, the notions they have about their roles as primary educators and their conceptual understanding about the role of home environment in reading and academic success of a child, is predictive of their children’s early literacy outcomes.

5.1.3 Parent Child Literacy Practices and Early Literacy Outcomes of 3-4 years Olds

Home differed immensely in terms of joint literacy practices. A variety of asset based literacy interactions that involved caregivers and children were reported more in urban households than in peri-urban and rural setups. Activities such as joint: watching TV programs, playing computer games, shopping, reading, writing and book talk were practiced most of the times.
within urban households. Urban households had occasionally indicated to engage in these activities but a number of these were not common in rural households sampled.

Specifically, urban households, engaged in most of these joint literacy practices while only a small proportion of peri-urban and rural households practiced the same. A majority of rural households missed a number of opportunities. Rural households recorded the least frequency in occurrence of activities such as shopping together, reading to and discussing pictures with a child and scribbling together. The least practiced being joint TV viewing, shopping and playing with electronic gadgets and musical equipment. Activities such as joint: watching TV programs, playing computer games, shopping, reading, writing and book talk were practiced most of the times within urban households. A handful of them were also reported to occur within the peri-urban households. Suffice to say, a number of parents from rural and a sizable proportion from peri-urban households did not believe in the value of these activities or were not in possession of resources that would have facilitated such practices.

Arguing from the presumptions of the Environmental Opportunity Hypothesis this study reaffirms assertions of scholars (for example Van Steensel, 2006 & Wambiri (2007) who observed a considerable variability in the HLE within SES groups. The two studies, that is, comparative and observational, noted that high SES families have the most stimulating HLE, characterized by joint literacy ventures and abundant educational resources. By extension the report also agrees with the above scholars’ observations that children from stimulating home literacy environment have a head start in literacy and an advantage over peers throughout
school and, children without such stimulation may need early intervention than any other to put them back on the path of academic success (Van Steensel, 2006).

The report makes it clear that the source of early differences in literacy for young children is the home and therefore it could be the most appropriate context for reducing risks for reading difficulties. More importantly, we can now see why children within homes that provide less stimulating environments and experiences for optimal development of language and literacy, are at the highest risk for reading difficulties than children whose homes are ‘literacy rich’. In sum, these findings confirm that literacy differences observed at school may be emanating from home. It also seems to agree that basic skills that children acquire at these early stages of reading development, determine whether a child is prepared for reading education or not in the long run. As such the null hypothesis stating that there is no difference in early literacy abilities of 3-4-year-old children from literacy rich homes and those from literacy- poor homes in Kakamega Central Sub- County, Kenya was rejected.

Results summarizing the opinions of parents about the effectiveness of a selected PCLPs also noted that a majority of parents from rural households and a significant proportion from peri-urban either disagreed or were not sure about the value of many literacy practices. It means they did not place a lot of importance on activities such as: reading together with children, watching educational films and oral play as avenues for early reading development. In contrast, most of the parents from urban households approved of a numbers of activities such joint TV watching with children, playing games, reading to children and book talk. The activity which was most approved of by urban parents was oral activities which encompassed singings, for instance Sunday school songs and reciting rhymes and poems. By either disregarding or being
uncertain about most of these asset based literacy practices, it means most of these activities are not valued hence not practiced in most of the rural and peri urban households. As such SES could be a facilitative/predictive factor in conceptualizing reading development within the home context or/and understanding the worth of various asset based literacy practices.

As has been mentioned, for instance by Arzubiaga et al., (2002) this study agrees that children from rural households may be experiencing less stimulating environments which is not adequate for optimal development of language and literacy skills, and are thus at the highest risk for reading difficulties than those who live in urban settings whose homes are ‘literacy rich’ (Nathan et al., 2004). In this regard area of residence as a marker variable remains an important factor to consider in determining risks in literacy failure, even though it does not have a very direct relationship with early literacy outcomes. For this reason, the null hypothesis stating that there is no difference in early literacy abilities of 3-4-year-old children from literacy rich homes and those from literacy poor homes in Kakamega Central Sub-County, Kenya was rejected.

On the relationship between PCLPs and ELSs, the study noted a significant effect of PCLPs categorized under Theme A, that is, phonological outcomes of the children, [p-values < .05, d.f = 1.], indicating that there was an interactive effect between these practices and phonological skills of children. Equally, all the PCLPs under theme B recorded statistical significant effect on communication ability [p-value< .05, df=1] revealing that these practices had positive interrelation effect with oral communication competence.
Similarly, PCLPs categorized under theme C and D were found to have statistical significant effect on alphabetic knowledge, book concept and awareness [p-value< .05, df =1] revealing that practices such as reading together and book talk had positive interrelation effect with children’s ELSs, specifically, alphabet knowledge, book knowledge and concepts.

Finally, the themes categorized under F such as playing musical instruments/computer/video and alphabet toys (e.g., blocks with letters of the alphabet) also recorded a statistical significant relationship and a positive interrelation effect with children’s early writing outcomes [p-value< .05, df=1]. These practices had a direct influence on pre-writing skills. No category failed to record a significant effect on any of the early literacy skills examined. In this the study concurs with the EPPE report which identified a range of activities (eg manipulative, oral, outdoor and writing) associated with positive pre-reading and prewriting outcomes at 3-7 years.

The results above also validate positions shared by researchers who expressed that although parent education, occupation, and income are related to children’s reading outcomes, the actual characteristics of the atmosphere that is created by the parents may be much more important. Therefore, parental involvement in their child’s literacy practices should be the variable of interest in the home as it is a more powerful force than other family background variables, such as social class, family size and level of parental education.
5.1.4 The Relationship between Home Literacy Resources and Early Literacy Outcomes of 3-4 year Old Children

Based on the findings, a good proportion of families were not in possessions of ‘literacy objects’ for use in daily literacy routines. Materials such as magazines, newspapers, picture, rhyming, alphabetic, story and chapter books were uncommon in most households and in particular, rural and peri-urban households. However, a small proportion of urban families indicated having some of these valuable resources. Suffice to say, most homes sampled did not promote meaningful literacy engagement with children, because any meaningful literacy engagement is only possible with sufficient and wide range of literacy materials.

As observed by Mc Gee and Richgels (2007) although all parents are expected to provide sufficient, relevant and a wide range of literacy resources such as books (pictures, short stories, chapter, rhyming, alphabet), magazines, newspapers and writing tools at home that permit children to have greater opportunities to learn about identifying letters on labels, writing letters and identifying words, such literacy resources were less common in a majority of households. They were noted to be available in a few urban and peri-urban households while rural households had the least of these resources. In this regard, SES is viewed as not only a predictor of availability of literacy resources for literacy interaction at home, but also a determinant of perceptions expectations and views parents hold about the effectiveness of such resources in promoting literacy development.
With regards to parents’ opinions about effectiveness of a selected resources findings reveal that a majority of parents from urban households, as compared to those who were sampled from periurban and rural preschools strongly and moderately approved of a majority of HLRs to be either very effective or moderately effective in enhancing early literacy abilities. In contrast, a few of parents from peri-urban and a majority rural households believed that these resources were either least effective or not effective at all. Even though a comparatively better section of urban parents viewed them effective, a lot more of rural parents and a few of periurban parents did not have faith on most of these materials.

Finally, univariate analysis results noted statistical significant result between HLRs and ELSs of 3-4 year olds, pointing out that there was an interrogational effect between all categories of HLRs on varied early literacy abilities. It means that availability of the selected HLRs produced positive effects on early literacy skills of 3-4 year olds. Rather, availability of these resources were directly proportional to the early literacy outcomes. Children whose homes had most of these HLRs had superior ELSs.

5.2 Conclusions
The following subsection highlight the study conclusions based on the four study objectives, that is, to determine the extent to which parental demographic characteristics predict early literacy outcomes, to establish the relationship between parents’ literacy beliefs and early literacy abilities, to examine parent child literacy practices that influence development of early literacy abilities and to investigate the relationship between home literacy resources and early literacy abilities of 3-4 year old children in Kakamega Central Sub County Kenya.
5.2. 1. Parental Demographic Characteristics as Predictors of Early Literacy Outcomes of 3-4 year old children

Social background difference suggests inequalities in reading development. Background variables such as age, gender, family size, education level and income levels of parents significantly predicted early literacy outcomes but at varying levels and directionality. The strongest positive predictors for this particular study was parental educational qualification and income level while negative predictors were family size and parental age. As such it is reasonable to say that parental demographic characteristics are predictors of early literacy outcomes of young children.

5.2.2 Parents’ Literacy Beliefs and Early Literacy Abilities of 3-4-year-Old Children

Parents across all socio economic background in Kakamega Central Subcounty ascribed positive or/and favorable beliefs about the role of HLE and reading development. This is a potential that can be tapped in creating a positive literacy environment before school for better early literacy outcomes. Parents’ literacy beliefs, attitudes and orientations were noted to (i) shaped parents’ behavior towards home literacy activities and academic support (ii) lead to a considerably variability on aspects examined within the HLE. Importantly, beliefs had a significant impact on the development of academic skills among children, that is, the stronger the belief the better the ELS scores. As such, whatever parents think about their children education, the notions they have about their roles as primary educators and their conceptual understanding about the role of home environment in reading and academic success of a child, is predictive of their children’s early literacy outcomes and is a key explanatory variable for learning support at home and school.
Parents Belief Systems account for a considerable variation on ELSs of 3-4 years old, although at varying degrees. There is linear predictive relationship between beliefs of parents and children’s reading development outcomes. Beliefs are facilitative factors, that is, whatever parents think, believe in, value, perceive to be important and view worthwhile is always actualized in practice, eventually becoming primary routes for children’s early literacy development. Parents’ literacy beliefs are predictive of early literacy abilities of 3-4-year-old children.

5.2.3 Parent Child Literacy Practices and Early Literacy Outcomes of 3-4 years Olds

Home literacy environment differed immensely in terms of joint literacy practices and availability of literacy resources. A variety of asset based literacy interactions that involved caregivers and children were reported more in urban households than in peri-urban and rural setups. Activities such as joint: watching TV programs, playing computer games, shopping, reading, writing and book talk were practiced most of the times within urban households. Urban households, engaged in most of these joint literacy practices while only a small proportion of peri-urban and rural households practiced the same. A majority of rural households missed a number of opportunities.

Just as has been expressed in the Environmental Opportunity Hypothesis, the source of early differences in literacy for young children could be rooted in the home and family context and it is highly linked to children’s early literacy experiences. Therefore, it could be the most appropriate context for reducing risks for reading difficulties. More importantly, we can now
see why children within homes that provide less stimulating environments and experiences for optimal development of language and literacy, are at the highest risk for reading difficulties than children whose homes are ‘literacy rich’. It suffices then to say, literacy differences observed at school may be emanating from home and more importantly the basic pre-literacy skills that children acquire under the tutelage of parents within the home context, determine whether a child is prepared for reading education or not. This study confirms that parent child literacy practices influence to a great extent early literacy outcomes of 3-4 years olds in Kakamega County.

5.2.4 The Relationship between Home Literacy Resources and Early Literacy Outcomes of 3-4 year Old Children

A good proportion of families were not in possessions of ‘literacy objects’ for use in daily literacy practices. Materials such as magazines, newspapers, picture, rhyming, alphabetic, story and chapter books were uncommon in most households and in particular, rural and peri-urban households. However, a small proportion of urban families had some of these valuable resources. Suffice to say, most homes sampled did not promote meaningful literacy engagement with children, because any meaningful literacy engagement is only possible with sufficient and wide range of literacy materials.

The present study validate positions shared by other scholars that although parent education, occupation, and income are related to children’s reading outcomes, the actual characteristics of the atmosphere that is created by the parents for meaningful literacy engagement, may be much more important. Specifically, the present study observes that homes that lack adequate print
exposure a variety of resources for children’s manipulation are likely to have pre-kindergarteners with inferior ELSs. Such children are likely to enroll in preschool without prerequisites or foundational skills which are needed for development of conventional literacy. They risk falling behind their peers throughout school. As such Home Literacy Resources (HLRs) just as Parents Child Literacy Practices (PCLPs) are powerful forces than other family background variables, such as social class, family size and level of parental education. There is a relationship between home literacy resources and early literacy outcomes of 3-4 year-old children.

5.3. Recommendations

This study was conceptualized against an understanding that literacy deficits can significantly disadvantage children’s ability to access the national curriculum and also that literacy development is inextricably linked to supportive home environments where parents remain critical links and ‘active ingredients’ of environmental influence. In line with this argument, forestalling children’s later literacy struggles requires a careful consideration of multiple factors in the Home Literacy Environment (for example demographic factors, parental literacy belief systems and practices). This study therefore confirmed that the home environment is an important context that cannot be overlooked in the analysis of children’s literacy trajectory. It challenges popularly held assumption that literacy development starts at school, the “context” is the classroom, the “messenger” is the teacher and the “resources” consist of those available in school context. In light of the findings of this study and the foregoing discussion, a number of recommendations are proposed to policy makers, scholars, donors and implementers of literacy intervention programmes in various areas as discussed below.
5.3.1 Re-examination of the National Early Childhood Curriculum and Policy in Kenya

Overtime, literacy development has been regarded as a function of the school and perhaps most relevant to children of school going age. However, from the study’s results, there is an urgent need to think about our youngest disadvantaged child who risk literacy failure at the ‘starting gate’. Children from disadvantaged households (that is low income families and low parental educational qualification) are a special category who risk reading failure in school and beyond. Commitments should therefore be made via the ECDE policy as well as in practice in order to ensure that such children gain access to compulsory, free and developmentally appropriate early childhood services.

The policy equally needs to recognize that all those who work with children are critical components in our national literacy agenda. When this is done, we will be sure of giving our children a better chance to position themselves in the current knowledge society. Probably, by adopting a preventive intervention model, rather than a remedial approach, children’s literacy developmental will automatically be directed and many of our children will not struggle to read at any stage along the education ladder. By adopting a slow building developmental and inclusive approach in child development, we will not only arrest the widening gaps between good and poor readers, but significantly reduce the numbers of struggling readers churned out of our national education curriculum. In the long run this will reduce significantly the cost of educational intervention for learning difficulties.
5.3.2 Design and Implementation of Family Literacy Programs or Services

A lot of literacy promotion and intervention schemes in Kenya are popular in classroom instructional contexts yet from this study’s findings; the HLE is the first instructional, ever available and economically viable context which shapes a child’s literacy development trajectory. From the study results, home set ups offer developmentally appropriate settings, materials, experiences and social support that encourage early forms of reading and writing to flourish and develop into conventional literacy. Parental involvement in a child’s early literacy development is the most important determinant for reading development, academic and school success. For the disadvantaged and hard-to-reach children, it gives children a head start in school and an advantage over peers throughout primary school. As such, even if working with parents in literacy intervention is an uphill task, perhaps due to their educational qualifications, the home is still the most effective and economically viable context for fostering and sustaining a child’s literacy development. At the very least, parental literacy programmes could still be designed in various languages to inspire and build capacities of parents in creating literacy rich environment before formal school. This is possible since the study has noted that, a majority of parents, regardless of economic status or educational level care deeply about their children’s literacy development and have a potential for providing substantial support if given specific opportunities and knowledge.

5.3.3 Paradigm Shift in Research Practice

Socioeconomic indicators of households have dominated reading development research literature for decades now. However current research best refers to SES factors as marker, facilitative or predictor variables than process variables. For instance, new innovations have
come to the realization that parental beliefs system and involvement in a child’s early literacy development are the most important ingredients in reading development, academic and school success, perhaps, having a greater impact than a combination of SES factors. In Kenya, scanty studies have attempted to investigate SES as a predictor variable in emergent or early literacy development, but little is documented on the link between parental literacy beliefs, practices and literacy development of pre-kindergartners. In the meantime, countless studies confirm that literacy practices within print-rich home environment are more powerful forces than other family background variables, such as social class, family income, family size and level of parental education.

It is in this view that this study urges research a refocus to variables that can be altered (especially what parents can do or not do with their children rather than what they are) in seeking to enhance literacy development of their children. Conversations from these study results should strengthen ECDE as developmentally appropriate practice which collaborates with families and empowers parents as prime and lifelong educators. Equally such empirical knowledge should provide practical take home points for crafting parental literacy programs. This way, research practice will cease to be more than just about ‘generic knowledge’ (what literature says) but what is new in literacy knowledge.

5.3.4 Establishment of Community Literacy Resource Centres in Counties

The study findings reveal that a number of homes lacked basic literacy resources. Parents were equally unaware of the role of a print rich environment. This seems to speak to the need for advocacy and mobilization at community and county levels on the need to improvise and
reduce overly dependence on commercially sourced literacy objects. Given that primary caregivers are potentially important in development of materials for literacy practice, it would be important that their capacities are enhanced in design and development of literacy resources. Sensitizing parents and establishing community learning resources centre or centres of excellence for parenting in each of the 47 counties in Kenya, with shared facilities to ensure that resources are accessible to all children would also be important. Abundance and ease of access to developmentally appropriate materials for reading development by parents and children would eventually encourage parent child literacy practices and acquisition of pre-reading skills.

5.3.5 Early Literacy Assessment Tools and Programs

Early grade literacy interventions have obviously not achieved the intended aim or translated to expectations of educators, policy makers and parents (Uwezo, 2011). This is partly due to its skewed approach. This study confirms that children whose homes offer rich stimulating HLE (estimated by availability of resources, favorable parental belief systems and literacy practices) recorded better scores than their counterparts who lived in less rich literacy homes. The leave it to school approach seemingly needs a refocus due to the fact that preventing early reading failure or interventions for young children most at risk of reading failure, during the early years has shown immeasurable gains. A good intervention program can only be informed by credible assessment which also depends on availability of reliable assessment tools, skilled educators and a clear policy. As such, this study advocates for literacy assessment not geared towards grading but rather identification of learners at risk of reading failure. In acknowledging that reading is the “gateway” to all other knowledge and students’ learning, this study recommends
that assessment of literacy skills (especially for children from disadvantaged backgrounds) should start as early as at kindergarten entry. This could not only inform appropriate intervention programs at preschool level but also tell whether children will be prepared for reading instructions they will receive in first grade. This way, children will not fail with catastrophic results in school or start down the slippery slope of non-achievement before they even have a chance to compete. Essentially this study advocates for the need to review the early literacy assessment criteria, tools and build capacities of preschool educators in identifying potential risks of literacy failure.

5.3.6 Suggestion for Further Research

a. This present study could be conducted in a different setup for instance in other counties (urban, peri urban or rural pure) based on expanded sample populations, other predictor variables that were not given much focus or with older for instance 5-6 years old who are at the transition point to elementary school.

b. A similar investigation could be carried out based on a different research approaches for instance ethnography in order to generate more accurate data rather than relying on self-reports of parents and guardians.
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APPENDIX I: Letter of Introduction

Rose Atieno Opiyo
Box 190-50100
Kakamega
Cellphone 0720926862
Email ateirose1973@gmail.com.
E 83/25076/12

To the parent of _____________________________ of ____________________________ preschool

I Rose Atieno Opiyo, a registered student in the Department of Early Childhood Studies, Kenyatta University is undertaking a project on Contribution of Home Literacy Environment on Early Literacy Achievement of 3-4 years in Kakamega Central Sub County.

I am pleased to inform you that you are one of the few parents whose input is highly valued hence selected to participate in the study. I request that you spare me 20 mins of your valuable time to respond to items in the questionnaire. Questions are purely based on own beliefs about early literacy, resources and home literacy routines evident in your home. I suggest that I visit your home on-------------March, 2015. If this time and date is not convenient, please give me a suggestion through the cell phone number-

Thanks in advance

Yours Sincerely

Rose Atieno Opiyo
APPENDIX II: Parent Consent Letter

Kenyatta University
Box 40486
Nairobi
Kenya

To the Parent of ……...

Thro
Director of……………… Preschool
Kakamega County
Kenya

Dear Parent

RE REQUESTS FOR YOUR SON/ DAUGHTER TO TAKE PART IN THE STUDY

I am a Doctor of Philosophy student at Kenyatta University I wish to conduct a study in which your son /daughter’s early literacy abilities will be assessed in the first term of 2015. The purpose of the study is to investigate Home Literacy Environment and Early Literacy Abilities of 3-4 year olds in Kakamega County.

The assessment will take 15-20 minutes and will be done at the convenience of the child within the preschool center. To help me review the interview, I request to either tape-record or video record just to make sure I have an accurate report of what our conversation is like. I will not make the audio public.

Please note that you can withdraw your son or daughter from participation in this study if you feel uncomfortable.

I have read and understood the intention and purpose of this study. Please (tick)

I agree ☐ I Disagree ☐

That my son / daughter participate in this study

Signature…………………………

Parent’s Name……………………

Contact…………….. Email…………………….

For more information contact me on 072092686
APPENDIX III: Preschool Teachers’ Information Sheet

Kenyatta University
Po Box Nairobi
Kenya

I am Rose Atieno Opiyo a student at Kenyatta University department of Early Childhood Studies I intend to do a study in the school leading to an award of doctor of Early Childhood Education degree. The study seeks to establish the influence of home literacy environment on development of early Literacy Abilities in 3-4 year olds in Kakamega central Subcounty. This study requires you to participate in a Focused Group Discussion. Your participation is for me to get a clear picture of the current teaching.

I will also request you to allow me randomly identify three children in the preschool class whom I intend to assess with regards to early literacy skills. I will need to audio record the FDG interviews for the purpose of going back to them for details as I think carefully about how the discussions went on. Kindly note that nobody apart from my supervisor, will get access to the information.

You will not be identifiable in any of the study report. You will remain anonymous in all verbal and written records and reports. The information from this study will be treated as confidential and will only be used for research purposes.

For further information, contact me either in person or through:
Phone number: +254 720926862
Email address: ropiyo@mmust.ac.ke/atierose1973@gmail.com
APPENDIX IV: Questionnaire for Parents and Guardians

Title of Study: “Contribution of Home Literacy Environment on Early Literacy Achievement of 3-4 year olds in Kakamega Central Sub County Kenya

Section A: Bio Data
1. Gender: Male [ ] Female [ ]
2. Marital Status: Married [ ] Single [ ] Widowed [ ]
3. Type of family: Monogamous [ ] Polygamous [ ]
4. Age Brackets: 20 years & below [ ] 21 – 30 years [ ] 31 – 40 years [ ] 41 – 50 years [ ] 51 – 60 years [ ] Over 60 years [ ]
5. Highest level of education: Never attended school [ ] Primary School [ ] Secondary Schools [ ] College [ ] University [ ]
6. Occupation: Employed [ ] Unemployed [ ]
7. Monthly Income in Ksh: 10000 and below [ ] 10000-20000 [ ] 20000-30000 [ ] 30000-40000 [ ] 40000- above [ ]
8. Number of Children in the family other than your son/daughter: None [ ] 1 – 3 [ ] 4 – 6 [ ] Over 6 [ ]

Section B: Parent Literacy Beliefs
Using the following scale, rate the extent to which you agree to the following beliefs.
Key: 5 = Strongly Agree, 4 = Agree, 3 = Undecided, 2 = Disagree and 1 = Strongly Disagree

<table>
<thead>
<tr>
<th>Beliefs</th>
<th>5</th>
<th>4</th>
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<tbody>
<tr>
<td>Frequently reading with children enhances child literacy skills</td>
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<tr>
<td>Literacy development of the child is the role of school and teachers</td>
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<tr>
<td>Teachers are the most knowledgeable</td>
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<tr>
<td>Parents have a role in children’s literacy development</td>
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<tr>
<td>Parent needs time to communicate with children</td>
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<tr>
<td>The home prepares a child for reading development</td>
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<tr>
<td>Homes that have resources enable children to acquire literacy skills early</td>
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<tr>
<td>Joint literacy activities contribute to children’s literacy development</td>
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<tr>
<td>Its both mothers’ and fathers’ role to ensure children develop in literacy</td>
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<tr>
<td>Its mothers’ role to ensure that children develop in literacy</td>
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<td>Its fathers’ role to ensure that children develop in literacy</td>
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<tr>
<td>Parents need to allow children ask questions &amp; probe them further</td>
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<tr>
<td>Early reading ensure academic success</td>
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<tr>
<td>Parents should have time to engage with children in literacy</td>
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<tr>
<td>Parents who engage in communication enable their children to develop language</td>
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<tr>
<td>Parents who model, reading and love for books nurture children interest</td>
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</tbody>
</table>
Parents are their children’s first teachers / educators
Home is the first school for a child
Activities in the home influences how strong a child joins school
All parents can set a literacy rich home for their children
Homes with books, where people read nurture children reading skills easy
Children can do well in school even when home do not lend a hand
Children’s interest can be nurtured by parents’ books
Frequent exposure of children to literacy materials nurture reading development
Literacy programmes in TV, Libraries should be encouraged
Children can enjoy literacy activities alone

In your opinion, what are ways in which children’s literacy skills can be enhanced?
……………………………………………………………………………………………………
……………………………………………………………………………………………………

Section C: Parent Child Literacy Activities
1. Do you as a parent read? Yes [ ] No [ ]
2. If yes, how frequent? Daily [ ] weekly [ ] Monthly [ ] Occasionally [ ]
3. List which kinds of materials you as a person read
………………………………………………………………………………………………..
4. Please indicate how frequently you engage in the following activities together with your 3-4-year-old child

<table>
<thead>
<tr>
<th>Activity</th>
<th>Always</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching television</td>
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<tr>
<td>Talking about books</td>
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<tr>
<td>Read together</td>
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<tr>
<td>Reading aloud signs and labels in the environment</td>
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<tr>
<td>Discuss pictures on magazines, newspapers</td>
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<tr>
<td>Story telling or news tell</td>
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<tr>
<td>Read books to</td>
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<tr>
<td>Writing e.g. Scribbling</td>
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<tr>
<td>Shopping in superstores</td>
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<tr>
<td>Library visits</td>
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<tr>
<td>Shopping for literacy materials</td>
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<tr>
<td>Playing musical instruments</td>
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<tr>
<td>Playing computer /video games</td>
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<tr>
<td>Play with alphabet toys (e.g., blocks with letters of the alphabet)</td>
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<tr>
<td>Play word games (tongue twisters, songs nursery poems chanting rhymes, etc)</td>
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</tbody>
</table>
5.Using the following scale, rate the extent to which you agree that early literacy skills of children are influenced by the following home literacy activities.  
Key: 5 = Strongly Agree, 4 = Agree, 3 = Undecided, 2 = Disagree and 1 = Strongly Disagree

<table>
<thead>
<tr>
<th>Activity</th>
<th>5</th>
<th>4</th>
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<tbody>
<tr>
<td>Library visits with your child</td>
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<tr>
<td>Shopping with your child</td>
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<td>Play sound games with your child</td>
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<td>Storytelling, chanting rhymes, singing with your child</td>
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<tr>
<td>Writing e.g. Scribbling with your child</td>
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<tr>
<td>Discuss pictures on magazines, books, newspapers with your child</td>
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<tr>
<td>Reciting nursery poems with your child</td>
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<td>Telling news to your child</td>
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<td>Playing instruments together with your child</td>
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<tr>
<td>Shopping literacy materials with your child</td>
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<tr>
<td>Reading with your child</td>
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<tr>
<td>Watch TV with your child</td>
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<tr>
<td>Play Computer games Video games with children</td>
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</table>

6. State any other home literacy activities that you believe influence early literacy skills of children.

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

Section D: Home Literacy Resources

7. Kindly state whether you have the following literacy resources in your home.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>Orderly inviting and comfortable reading area or room with table or surface readily available for writing or drawing and child-sized chairs</td>
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<tr>
<td>Textbooks or books in the family</td>
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<tr>
<td>Printed Cloth and cardboard</td>
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<tr>
<td>Calendars success cards greeting cards etc</td>
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<tr>
<td>Alphabet and sound charts</td>
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<tr>
<td>Magazines Newspaper and newsprint</td>
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<tr>
<td>Journals and articles</td>
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<tr>
<td>Alphabet book</td>
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<tr>
<td>·Calendars – wall &amp; personal</td>
<td></td>
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<tr>
<td>Atlas, maps, picture dictionary</td>
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<tr>
<td>Resources</td>
<td>VE</td>
<td>ME</td>
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<tr>
<td>--------------------------------------------------------------------------</td>
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<tr>
<td>Reading materials e.g. picture books, chapter books, atlases, dictionaries, magazines, and newspapers</td>
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<tr>
<td>Cloth and cardboard</td>
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<tr>
<td>Home Library</td>
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<tr>
<td>Encyclopedias, an atlas, the Bible, and even comic books</td>
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<tr>
<td>Paper, markers and crayons</td>
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<tr>
<td>Alphabet blocks and puzzles letter-shaped cookie cutters, letter stamps and stickers.</td>
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<tr>
<td>DVDs that feature rhyming and children's books on tape or CD</td>
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<tr>
<td>Colorful picture or a vase of flowers</td>
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</tbody>
</table>

8. State any other resources you have that are not on the above list.

……89 Kindly rate in your opinion, the level of effectiveness of the home literacy resources in enhancing literacy skills among 3 – 4-year-old children as either Very effective (VE), Moderately effective (ME), Less Effective (LE) or Not Effective (NE)

Thank you for your cooperation
## APPENDIX V: Home Educational Resource Measure/Checklist

<table>
<thead>
<tr>
<th>Resource</th>
<th>Availability</th>
<th>Quantity</th>
<th>Accessibility</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books in the family</td>
<td></td>
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<tr>
<td>Magazines, newspaper, newsprint, flyers, photo albums, catalogues</td>
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<td></td>
<td></td>
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<tr>
<td>Journals and articles</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Alphabet book</td>
<td></td>
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</tr>
<tr>
<td>Calendars – wall &amp; personal</td>
<td></td>
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<tr>
<td>Atlas, maps, picture dictionary</td>
<td></td>
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<tr>
<td>Picture, art, drawing rhyme books</td>
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<tr>
<td>Family computers</td>
<td></td>
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<tr>
<td>Crayons and pencils</td>
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<tr>
<td>Alphabet toys (e.g., blocks with letters of the alphabet)</td>
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<tr>
<td>Video CDs VCDs for nursery rhymes</td>
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<tr>
<td>Table or surface readily available for writing or drawing.</td>
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<tr>
<td>Charts of colour and shapes</td>
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<tr>
<td>Computer/play station with alphabet games</td>
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<tr>
<td>Charcoal, pastels and chalk</td>
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<tr>
<td>Pads of paper, notebooks</td>
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<tr>
<td>Puzzles with alphabets, letters, sounds and words</td>
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<tr>
<td>Materials for sorting, classifying, sequencing, seriation e.g. beads etc</td>
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<tr>
<td>Pets or toys e.g. dolls or stuffed animals.</td>
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<tr>
<td>Carton boxes, containers, tins with labels</td>
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<td></td>
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<tr>
<td>Other (plastic bags, printed bottles)</td>
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</tbody>
</table>
APPENDIX VI: Focused Group Discussion Guide for Preschool Class Teachers

Title of Study: Home Literacy Environment and Development of Early Literacy Abilities of 3-4 year olds in Kakamega Central District Kenya

Time of FDG: ______________Date: ______________Place: ________________
No. of participants: _______________________
Interviewee’s Signatures: ______________

Dear Sir/Madam,
Thank you for taking your time to meet with me. I am a student at Kenyatta University taking a Degree in Early Childhood Studies and carrying out a study in which your assistance is very vital. My goal here today is to gather information regarding the home literacy environment of 3-4 years old enrolled in your classrooms from experts’ view point.
Kindly assist by providing relevant information. Your responses will be handled with utmost confidentiality and privacy and will only be used for the above study for statistical analysis, planning and reporting of aggregated information. Feel free as you respond to questions.

Section I: Bio data
1. Tell me something about yourself
2. How do you find nurturing young children’s reading and writing development?

Section II: Early literacy skills
1. What are early literacy skills?
2. In your view, what are the four most important early literacy skills that are precursors to literacy development in primary grades?
   Probes
   How are these skills important?
3. What early literacy skills and abilities do you expect these children to have? Why?
4. Do 3-4 year-old children you admit having these skills?
   Probes
   Which skills do they have/not have? Why is this the case?
5. What challenges do you experience with children who join preschool with or without early literacy skills during literacy instruction?
   Probes
   a. In learning letters and sounds?
   b. In book handling?
   c. In writing?
   d. In holding a pencil?
Selection III: Home Literacy Environment

6. In your view where/when should children start learning how to read and write?
   **Probes**
   Why?
   Who has this responsibility?

7. What are your expectations of homes and families in terms of early literacy development?

8. Do you think parents and families in this area provide literacy opportunities to children before preschool?
   **Probes** - If yes, what are these opportunities or activities?
   **If no**, why are families not offering such opportunities before preschool?

9. Do parents consult you on their children’s literacy issues?
   **Probes**
   Which ones?
   What has been your advice to them?

10. Do you discuss literacy progress of children with parents?
    **Probes**
    How often? What is usually the outcome?

11. What home characteristics in your view promote preschoolers’ early literacy development?
    **Probes**
    Are Parent literacy beliefs, Home Literacy resources and Parent-child literacy practices important? How?

12. What beliefs of literacy do parents hold in this area?
    **Probes**
The following are pre-literacy skills that predict literacy development of children. Children participated in different activities to show their competence in a number of early literacy skills. These were rated on a 4-point scale: Not at all = 1, Not very well = 2, moderately well = 3, and Very well = 4.

<table>
<thead>
<tr>
<th>Early Literacy Skills</th>
<th>Not at all</th>
<th>Not very well</th>
<th>Moderately well</th>
<th>Very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converse in local language</td>
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<tr>
<td>Discuss pictures with different vocabularies</td>
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<tr>
<td>Recognize letter sounds and environmental sounds</td>
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<tr>
<td>Discriminates between sounds</td>
<td></td>
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<tr>
<td>Identify beginnings and endings of words</td>
<td></td>
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<tr>
<td>Know names of things in environment</td>
<td></td>
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<tr>
<td>Converses about shapes, pictures, colours, sizes</td>
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<tr>
<td>Notice different signs, logos, marks</td>
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<tr>
<td>Follow written words line by line</td>
<td></td>
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<tr>
<td>Recognizes letters/associates with correct sounds</td>
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<tr>
<td>Aware of words in a book</td>
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<tr>
<td>Keen on beginning letters and sounds</td>
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<tr>
<td>Turn pages in succession</td>
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<tr>
<td>Enjoy favourite books/have fun/curious with books</td>
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<tr>
<td>Make letter shapes on sand, building, wall or floor</td>
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<tr>
<td>Associate and notices letters with their names</td>
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<tr>
<td>Recognize their names on print</td>
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<tr>
<td>Identifies at least 5 letters of alphabets</td>
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<tr>
<td>Examines writing samples</td>
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<tr>
<td>Records thoughts in form of pictures</td>
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<tr>
<td>Include print in their drawing, traces and copies</td>
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<tr>
<td>Display their writing attempts</td>
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<tr>
<td>Draws/ scribbles letter like features on surfaces</td>
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<tr>
<td>Want to join adults in writing</td>
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<tr>
<td>Looks at pictures &amp; retell a story</td>
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<tr>
<td>Open book from left to right</td>
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<tr>
<td>Read /write from top to bottom &amp; left to right</td>
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<tr>
<td>Read street signs and prints in the environment</td>
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<tr>
<td>Asks questions related to pictures of a book</td>
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<tr>
<td>Pretend to read, shows book interest</td>
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<tr>
<td>Recognizes how books are read-front-to-back, one page at a time, basic characteristics eg title, author, and illustrator.</td>
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<tr>
<td>Asks, answers questions and makes comments about print materials.</td>
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<tr>
<td>Activity</td>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>Retells stories or information from books</td>
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<tr>
<td>Copies, writes, traces Draws pictures independently</td>
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<tr>
<td>Draws pictures to illustrate stories</td>
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<tr>
<td>Understands conventions, such as print moves from left to right and top to bottom of a page.</td>
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<tr>
<td>Experiments with writing tools and materials</td>
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<tr>
<td>Recognizes print in everyday life</td>
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<tr>
<td>Uses scribbles, shapes, pictures, and letters to represent objects, stories, experiences, or ideas.</td>
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<tr>
<td>Recognizes writings in lists, logos, messages, signs, menus</td>
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</table>
APPENDIX VIII: Authority to Carry out Research

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
STATE DEPARTMENT OF EDUCATION

REPUCLB OF KENYA

Ref: NO. KKC/SCEO/ADM/20/(135) Date: Thursday, January 14, 2016

All Head teachers
KAKAMEGA CENTRAL SUB-COUNTY

RE: RESEARCH AUTHORIZATION
MS ROSE ATIENO OPIYO – REG. E83/25076/12

The above named is a post graduate student of Kenyatta University and has been granted permission to conduct research on “Home Literacy Environment on Development of Early Literacy of 3-4 year olds in Kakamega Central Sub-County Kenya”

Kindly accord her the necessary assistance to enable her complete her studies.

Thanks.

TERESA SONGWA
FOR: DISTRICT EDUCATION OFFICER
KAKAMEGA CENTRAL
APPENDIX IX: Research Permit

THIS IS TO CERTIFY THAT:

MS. ROSE ATIENO OPIYO
OF KENYATTA UNIVERSITY, 190-50100
KAKAMEGA, has been permitted to
conduct research in Kakamega County
on the topic: 'HOME LITERACY
ENVIRONMENT ON DEVELOPMENT OF EARLY LITERACY ABILITIES OF 3-4 YEAR OLDS IN KAKAMEGA CENTRAL SUB COUNTY KENYA

for the period ending:
29th April, 2017

Permit No.: NACOSTI/P/16/15173/10740
Date Of issue: 2nd May, 2016
Fee Received: Ksh 2000

Director General
National Commission for Science, Technology & Innovation

Applicant’s Signature
APPENDIX X: Map Showing Kakamega Central Sub county, Kenya