DETERMINANTS OF PRIMARY SCHOOL WASTAGE FOR LEARNERS WITH DISABILITIES IN COAST PROVINCE, KENYA: TOWARDS A THEORETICAL PREVENTION MODEL

LUBNA MUNIR MAZRUI
E83/10961/2007

A THESIS SUBMITTED IN FULFILLMENT FOR THE AWARD OF DOCTOR OF PHILOSOPHY IN THE SCHOOL OF EDUCATION, DEPARTMENT OF SPECIAL NEEDS EDUCATION, KENYATTA UNIVERSITY

September, 2014
DECLARATION

I confirm that this research thesis is my original work and has not been presented for a degree in any other university. The thesis has been complemented by referenced works duly acknowledged. Where text, data, graphics, pictures and tables have been borrowed from other works, including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

Signature: ------------------------------ Date: ------------------------------
Lubna Munir Mazrui
E83/10961/2007

We confirm that the work reported in this thesis was carried out by the candidate under our supervision as university supervisors.

Signature: ------------------------------ Date: ------------------------------
Dr. Nelly Otube
Department of Special Needs Education
School of Education
Kenyatta University

Signature: ------------------------------ Date: ------------------------------
Dr. Michael Njoroge
Department of Special Needs Education
School of Education
Kenyatta University
DEDICATION

To my beloved uncle, Alamin, without whose belief in my capabilities, and unwavering love, material and moral support, attainment of higher education, including the Doctorate, would have been only a dream for me.
ACKNOWLEDGEMENTS

I thank God Almighty for granting me the opportunity to pursue this doctorate and the physical and emotional well-being required in attaining it.

Many people contributed to the Doctorate whose culmination is this dissertation. But due to the limited space available, only the most important contributors are acknowledged below.

First, I appreciate the contributions of all the scholars who enriched this dissertation. In this regard, I am very grateful to my former supervisor, Dr. John Mugo (formally of Kenyatta University), and my supervisors, Dr. Nelly Otube and Dr. Michael Njoroge for reading and thoroughly critiquing various drafts of my work, and for directing me to other resources that enriched my work. In addition, I thank Dr. Otube and Dr. Njoroge for allowing me to give this dissertation the best I could. The extremely valuable input of Dr. Margaret Murugami, who read and thoroughly critiqued the dissertation at my request, despite all her university work, is also very much appreciated.

Second, I appreciate the contributions of all those who facilitated my data collection. In this regard, I thank all the teachers, learners, dropouts, parents of repeaters and dropouts, and former learners who warmly welcomed me into their institutions or homes and willingly provided me with the information reported in this dissertation. I also thank the Council for Social Science Research in Africa (CODESRIA) and the Kenyatta University School of Education for providing me with funds for data collection. In addition, I thank Mrs. Elizabeth Mwamburi and Mrs. Mary Kitwa for their sign language interpretation services, and my research assistants: Ruth Bosire, Joan and Ann, for their help in collecting data. Finally, I thank my parents, Munir and Huda Mazrui, for helping me to obtain school enrollment and staffing data from Ministry of Education offices in the Coast province, and for allowing me to use their car to get to some interior parts of the Coast Province where public transport does not reach.
Third, I appreciate the contributions of all those who helped me to obtain and read scholarly literature and other information relevant for this dissertation. In this regard, I thank the Council for Social Science Research in Africa (CODESRIA) for granting me a book allowance. I also thank my friends and former readers: Dr. Amina Abubakar, Christine Murugami, and Eline Illa, and my sister, Nashaat Mazrui, for helping me to obtain and read through a lot of scholarly literature. Ms. Illa was particularly instrumental in this regard. She sacrificed a lot of her time for this purpose, especially during my dissertation writing. In addition, Ms. Illa helped me to develop and refine all the tables and figures in this dissertation. Furthermore, I thank my friend and house mate, Phylis Chemtai, for reading for me most of the corrections recommended by supervisors and other scholars who critiqued this dissertation.

Finally, I deeply appreciate friends and relatives for contributing to my physical and emotional well-being during my pursuit of the Doctorate. In this regard, I thank my friends: Drs. Otube, Wamocho and Murugami, and my sister, Nashaat Mazrui, uncle, Professor Alamin Mazrui, and mother, Huda Mazrui. Depending on their judgment of the situation at hand, these individuals listened, encouraged and advised me. Dr. Murugami and my mother were especially instrumental in this regard. I also thank my friend and house mate, Phylis Chemtai for providing me with companionship, and enabling me to be well fed and live in clean surroundings.
# TABLE OF CONTENTS

DECLARATION ................................................................................................................................. ii  
DEDICATION .................................................................................................................................... iii  
ACKNOWLEDGEMENTS .................................................................................................................... iv  
TABLE OF CONTENTS ....................................................................................................................... vi  
LIST OF TABLES ................................................................................................................................... ix  
LIST OF FIGURES ............................................................................................................................... x  
ABBREVIATIONS AND ACRONYMS .................................................................................................... xi  
ABSTRACT ........................................................................................................................................... xii  

## CHAPTER ONE: INTRODUCTION AND CONTEXT OF THE STUDY .............. 1
1.1 Introduction ................................................................................................................................. 1  
1.2 Background of the Study ............................................................................................................. 1  
1.3 Statement of the Problem ............................................................................................................ 6  
1.4 Purpose of the Study ..................................................................................................................... 7  
1.5 Objectives of the Study ............................................................................................................... 8  
1.6 Research Questions ..................................................................................................................... 8  
1.7 Assumptions of the Study ............................................................................................................ 9  
1.8 Limitations of the Study .............................................................................................................. 9  
1.9 Delimitations of the Study .......................................................................................................... 10  
1.10 Significance of the Study ........................................................................................................... 11  
1.11 Theoretical Framework ............................................................................................................ 12  
1.12 Conceptual Framework ............................................................................................................. 14  
1.13 Operational Definition of Terms .............................................................................................. 16  

## CHAPTER TWO: REVIEW OF RELATED LITERATURE ........................................ 18
2.1 Introduction .................................................................................................................................... 18  
2.2 Overview of Primary School Wastage Patterns ........................................................................ 18  
2.3 Educational Wastage and Its Contributors .............................................................................. 25  
2.3.1 Economic Factors and Wastage ............................................................................................ 26  
2.3.2 Socio-cultural Factors and Wastage ................................................................................... 34  
2.3.3 Other factors and wastage .................................................................................................... 51  
2.4 Impact of Wastage ..................................................................................................................... 52  
2.4.1 Impact of Repetition ............................................................................................................. 52  
2.4.2 Impact of Dropout ................................................................................................................ 56  
2.5 Prevention of Wastage ............................................................................................................... 58  
2.6 Summary ...................................................................................................................................... 65  

## CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY ............. 67
3.1 Introduction .................................................................................................................................... 67  
3.2 Research Design and Locale ...................................................................................................... 67  
3.2.1 Research Design .................................................................................................................. 67  
3.2.2 Variables ................................................................................................................................ 68  
3.2.3 Location of the Study .......................................................................................................... 69  
3.3 Target Population ....................................................................................................................... 70
3.4 Sampling Techniques and Sample Size ................................................................. 71
  3.4.1 Sampling Techniques ..................................................................................... 71
3.5 Research Instruments ......................................................................................... 74
  3.5.1 School Register Analysis Guide ................................................................. 75
  3.5.2 Interview Guides ......................................................................................... 75
  3.5.3 Focus Group Discussion Guide ................................................................. 76
  3.5.4 Pilot Study ................................................................................................... 76
  3.5.5 Reliability and Validity ............................................................................... 77
3.6 Data Collection ................................................................................................... 78
  3.6.1 Logistical and Ethical Considerations ....................................................... 78
  3.6.2 The Data Collection Process ..................................................................... 79
3.7 Data Analysis ..................................................................................................... 83

CHAPTER FOUR: FINDINGS, INTERPRETATION AND DISCUSSIONS ...... 84
  4.1: Introduction ..................................................................................................... 84
  4.2: Demographic Information of Study Participants ........................................ 84
    4.2.1: Characteristics of interviewed Parents of repeaters and Dropouts with Disabilities ................................................................. 84
    4.2.2: Characteristics of Learners and Dropouts with Disabilities .................. 85
    4.2.3: Characteristics of interviewed Teachers of Learners with Disabilities ...... 87
    4.2.4: Characteristics of interviewed Parents of repeaters and Dropouts in Units/Integrated Programmes ................................................................. 89
  4.3 Patterns of Grade Repetition and Dropout .................................................... 90
    4.3.1 Patterns of Grade Repetition .................................................................... 91
    4.3.2 Patterns of Dropout ................................................................................ 93
  4.4 Educational Wastage and its Contributors .................................................. 94
    4.4.1 Economic Factors and Wastage .............................................................. 95
    4.4.2 Socio-cultural Factors and Wastage ....................................................... 102
    4.4.3 Other Factors and Wastage .................................................................. 121
  4.5 Impact of Wastage ........................................................................................... 125
    4.5.1 Impact of Repetition .............................................................................. 125
    4.5.2 Impact of Dropout ................................................................................. 132
  4.6 Prevention of Wastage .................................................................................... 136
  4.7: Proposed model for preventing Wastage of learners with disabilities in Kenya. 145
  4.8 Summary ......................................................................................................... 149

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS ................................................................. 152
  5.1 Introduction ..................................................................................................... 152
  5.2 Summary of Study Findings ......................................................................... 152
  5.3 Conclusions .................................................................................................... 153
  5.4 Recommendations ........................................................................................ 155
    5.4.1 Recommendations for the Ministry of Education .................................. 155
    5.4.2 Recommendations for Further Research ............................................... 157

REFERENCES ........................................................................................................ 158
APPENDICES.................................................................................. 165
APPENDIX A...................................................................................... 165
APPENDIX B...................................................................................... 166
APPENDIX C...................................................................................... 168
APPENDIX D...................................................................................... 169
APPENDIX E...................................................................................... 172
APPENDIX F...................................................................................... 175
APPENDIX G...................................................................................... 176
APPENDIX H...................................................................................... 178
APPENDIX I...................................................................................... 179
LIST OF TABLES

Table 3.1: Target Population ................................................................. 70
Table 3.2: Sampling grid ........................................................................ 73
Table 4.1: Characteristics of FGD participants (n=54) ......................... 85
Table 4.2: Characteristics of Interviewed Repeaters (n=15) ................ 86
Table 4.3: Interviewed Teachers Training in SNE (n=20) ...................... 87
Table 4.4: Interviewed Teachers for Different Disability Categories (n=20) 88
Table 4.5: Post Training Teaching Experience of interviewed Teachers (n=20) 88
Table 4.6: Characteristics of interviewed former learners (n=6) ............ 89
Table 4.7: School Register Analysis of Repeaters (n=19) ....................... 91
Table 4.8: School Register Analysis of Dropouts (n=20) ....................... 93
Table 4.9: Economic Factors and Wastage ............................................ 95
Table 4.10: Socio-cultural factors and wastage ...................................... 102
Table 4.11: Other factors and Wastage .................................................. 121
Table 4.12: Impact of Repetition ............................................................ 125
Table 4.13: Ranked effects of repetition .................................................. 131
Table 4.14: Impact of Dropout ............................................................... 132
Table 4.15: Ranked effects of Drop out .................................................. 135
Table 4.16: Measures for Preventing Wastage ...................................... 136
Table 4.17: Ranked measures for preventing wastage ......................... 144
LIST OF FIGURES

Fig 1.1 Determinants of school wastage for learners with disabilities .......................... 14
Fig 4.1 Characteristics of interviewed drop outs (n=4) ............................................. 87
Fig 4.2 Wastage and its contributors.............................................................................. 124
Fig 4.3 Model for preventing wastage of learners with disabilities in Kenya.............. 146
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>GER</td>
<td>Gross Enrollment Ratio</td>
</tr>
<tr>
<td>HI</td>
<td>Hearing Impairment</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MOEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>NTV</td>
<td>Nation Television</td>
</tr>
<tr>
<td>PI</td>
<td>Physical Impairment</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>UPE</td>
<td>Universal Primary Education</td>
</tr>
<tr>
<td>VI</td>
<td>Visual Impairment</td>
</tr>
</tbody>
</table>
ABSTRACT

This mixed methods study investigated the determinants of primary school wastage for learners with disabilities in the Coast province of Kenya. The study sought to: establish patterns of grade repetition and dropout, investigate determinants of wastage, establish the impact of wastage on learners and dropouts, and develop a model on how wastage can be reduced and educational access and achievement enhanced. The study participants were primary school learners with disabilities in special schools and units/integrated programmes in regular schools, school dropouts, adults with disabilities who were former learners of special schools and units/integrated programmes, parents of repeaters and dropouts, and primary school teachers. Participants were sampled through purposive and snowball sampling techniques. Research data was collected through documentary analysis, interviews and Focused Group Discussions. Data was analyzed using descriptive statistics and discourse analysis. Study findings revealed that repetition and dropout of learners with disabilities was not frequent, and that wastage affected boys and learners with hearing impairments most. Findings also revealed that the wastage of learners with disabilities resulted from economic, socio-cultural and other factors which were neither economic nor socio-cultural. Findings further revealed that wastage has a negative impact on learners and dropouts with disabilities, and that this impact can be decreased by employing various measures for preventing wastage. The implications of these findings are discussed. A model for preventing wastage and improving the educational achievement and academic success of learners with disabilities, based on the findings of this and previous studies, is also proposed. This model consists of several measures to be implemented at the community and school levels.
CHAPTER ONE

INTRODUCTION AND CONTEXT OF THE STUDY

1.1 Introduction

This chapter begins with a presentation of the background of this study and its statement of the problem. The study’s purpose, objectives, research questions, limitations, delimitations and assumptions are discussed in subsequent sections. Sections on the significance of the study, the study’s theoretical and conceptual framework, and the operational definition of key terms then conclude the chapter.

1.2 Background of the Study

In 1948 the Universal Declaration of Human Rights asserted the right to education (Stubbs, 2002). However, when the United Nations Convention on the Rights of the Child was being adopted in 1989, this right had not been actualized for all people. Marginalized groups, including girls and women, poor and rural populations, people with disabilities, ethnic and religious minorities and street and working children, are among the groups who were, and still are, being excluded and/or discriminated against in education (Stubbs, 2002).

In recognition of the discrimination and/or exclusion of certain groups in education, the United Nations Convention on the Rights of the Child of 1989 affirmed a child’s rights to education and nondiscrimination, urged countries to make primary education free and compulsory to all children and to provide an education which will facilitate the holistic development of the child and enable him/her to lead a productive adult life (Stubbs,
Along the same vein, The Jomtien World Declaration of 1990 advocated for Education for All (EFA). Education for All was supposed to be realized through the removal of all barriers, which prevented the full participation of marginalized groups in education (Stubbs, 2002). Furthermore, the Dakar Forum and Framework for Action of the year 2000 created strategies for the development of strong national plans of action for the achievement of Education for All (Stubbs, 2002).

A key component of Education for All is the achievement of Universal Primary Education (UPE). The achievement of Universal Primary Education involves not only a Gross Enrollment Ratio of 100% or approximately 100%, but also universal completion of primary education (UNESCO, 2005). The achievement of Universal Primary Education was both a leading goal of the Dakar EFA conference of the year 2000 and a principle objective of the Millennium Development Goals (UNESCO, 2005). The primary education cycle was accorded such importance because it facilitates the acquisition of literacy skills, and has a significant impact on a country’s social and economic development (Achola & Pillai, 2000; UNESCO, 2005). This is particularly true in African countries where the returns for primary education are much greater than those for other educational levels (UNESCO, 2005).

Many African countries have embraced the Education for All movement through their commitment to the achievement of Universal Primary Education. Toward this end, many have developed policies and initiated programmes to facilitate universal access to primary education. Kenya, for example, passed the Children Act (2001), which
guarantees the rights and promotes the welfare of the child. One right entrenched in the Children Act is the right of every child to a free and compulsory basic education. The Free Primary Education programme, which Kenya initiated in 2003, was part of the implementation process for this act. As a result of this programme the Gross Enrollment Ratio (GER) in primary education reached 99% in 2004 (MOEST, 2005a). However, a GER of 100% or close to 100% does not in itself facilitate the achievement of Universal Primary Education. “A Hundred percent GER does not coincide with achievement of UPE except in cases where no child leaves school or repeats a grade” (UNESCO, 2005: p. 63). Thus Universal Primary Education can only be achieved if a country has a GER of 100% (or close to that) and her primary education cycle is not characterized by a substantial amount of educational wastage.

Wastage is an economic concept, which refers to the extra years spent by repeaters and the years lost by dropouts in completing primary education relative to the total number of years spent by other children of the same cohort (Achola & Pillai, 2000). This is viewed as a loss of investment. The concept also applies to non-enrolled children because they lack the essential knowledge and skills, which would make them productive members of society (Achola & Pillai, 2000).

Available information indicates that Kenya’s primary education cycle manifests a significant amount of educational wastage (Achola & Pillai, 2000; Irvin, 2009; MOEST, 2005a). In 2002, the Gross Enrollment Ratio stood at 87.6%. However, in 2004 after the implementation of the Free Primary Education programme, primary school enrollment
grew to 99% (MOEST, 2005 a). Nevertheless, around 1.5 million children of school-going age were not enrolled in school by 2005 (MOEST, 2005a). Among these, were over 90% of children with disabilities (MOEST, 2005a). Furthermore, between the mid 1990s and 2005, the cumulative dropout rate in primary education was as high as 40% and the repetition rate 14%. The survival rate over the decade was 40% (MOEST, 2005a). Since 2005, primary school completion rates have improved substantially, reaching 81% in 2007 (Irvin, 2009). But this national average completion rate means that 19% of children do not complete the primary cycle. This national average also masks significant provincial variations (Irvin, 2009). In addition, studies indicate that repetition of the primary grades continues to be substantial (Irvin, 2009; Ruto, Mugo & Kipserem, 2010).

Primary school wastage in Kenya is not only high, but it also exhibits regional and gender disparities. Research has established that non-enrollment and dropout affect more girls than boys, while repetition affects more boys than girls (MOEST, 1994). In terms of regional disparities, non-enrollment and dropout is high in counties of the Coast, North Eastern and Rift Valley provinces (Abagi & Odipo, 1997; Irvin, 2009; MOEST, 1994; United Nations, 2000). For example, the net enrollment ratios between 2003 and 2007 averaged 91.6% nationally, but most districts of the North had very low net enrollment ratios, some as low as 20% (Ruto et al. 2010). Furthermore, available data from 2003 to 2007 demonstrate provincial variations in dropout rates, with the highest rates being recorded in Coast and North Eastern provinces (Irvin, 2009).
Besides gender and regional disparities, wastage affects certain social groups more than others. Non-enrollment and dropout are major problems in areas dominated by Muslims and in pastoralist communities (Achola & Pillai, 2000; MOEST, 1994; Ruto et al. 2010; Sifuna, 2005). In the arid and semi-arid counties populated mainly by nomadic and pastoralist communities, for example, enrollment rarely exceeds 20% of children of school-going age (Sifuna, 2005). Furthermore, research in Kenya and other countries reveals that children from poor families, children with disabilities and those in especially difficult circumstances, like those of refugee status and those orphaned by HIV and AIDS, are all more susceptible to experience all three components of wastage (Achola & Pillai, 2000; National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; UNESCO, 2010). Research in several countries demonstrates a high rate of primary school non-enrollment for children with disabilities. In Malawi and Tanzania, for example, children with disabilities are twice as likely as their nondisabled counterparts to have never attended school, while in Burkina Faso the likelihood is more than double (UNESCO, 2010). The high rate of non-enrollment of children with disabilities is high even for countries that are closer to achieving universal primary education. In Bulgaria and Romania, for example, net enrollment ratios in 2002 were over 90%, but 58% for children with disabilities (UNESCO, 2010). As stated above, this high rate of non-enrollment of children with disabilities is also apparent in Kenya (MOEST, 2005a; 2005b). Research in other countries also shows that dropout of children with disabilities is significant (UNESCO, 2010).
Children from marginalized groups are not only likely to have never attended school and to drop out of school, they are also likely to learn less while in school, compared to their non-marginalised counterparts (UNESCO, 2010). In many countries, including Kenya, the learning of children with disabilities is reduced, sometimes even hindered by inadequately resourced schools and classrooms, coupled with stigma and discrimination (MOE, 2009; UNESCO, 2010). Limited learning in school leads to repetition of classes (UNESCO, 2010; UNESCO, 2011). Thus, due to their limited learning in school, marginalized groups such as people with disabilities are likely to have higher rates of repetition compared to their non-marginalized counterparts.

It was these primary school wastage patterns and the greater vulnerability of certain social groups to experience wastage, which prompted researchers to investigate the phenomenon. As will be elaborated below, however, the educational wastage of learners with disabilities in Kenya has received little research attention.

1.3 Statement of the Problem

Several studies have investigated the determinants of primary school wastage in Kenya. Many of these studies have focused on out of school factors associated with the economic deprivation of families and communities (MOEST, 1994; MOEST, 2005a; National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; Okungu, 2004). The contribution of school facilities and resources on wastage has also been significantly researched (Achola & Pillai, 2000; Commission of

The impact of socio-cultural factors on wastage, particularly those within the school system, has received limited research attention. Furthermore, the wastage of marginalized social groups, particularly children with disabilities, has received little research attention. There has been limited research on the factors that have led to the high rate of non-enrollment of children with disabilities in Kenya. Additionally, no research studies known to the researcher have investigated the extent of repetition and dropout of children with disabilities, the factors that cause these forms of wastage, the impact of repetition and dropout on learners and dropouts with disabilities, and/or the measures for preventing wastage of children with disabilities in Kenya. Hence, more research needs to be carried out to fill in these gaps.

This study, therefore, investigated the determinants of primary school wastage of learners with visual, hearing and physical impairments in Mombasa, Kwale and Kilifi counties of the Coast Province of Kenya, with a view of suggesting a theoretical model for intervention.

1.4 Purpose of the Study

This study investigated the determinants of primary school wastage of learners with physical, hearing and visual impairments in Mombasa, Kwale and Kilifi counties in the Coast province of Kenya.
1.5 Objectives of the Study

More specifically, the study sought to achieve the following objectives:

1. Establish patterns of grade repetition and dropout for learners with disabilities in the Coast province.
2. Investigate determinants of wastage for learners with disabilities.
3. Establish the impact of wastage on learners and dropouts with disabilities.
4. Develop a theoretical model on how wastage can be reduced to enhance access and achievement for learners with disabilities in Kenya.

1.6 Research Questions

The study was propelled by the following research questions:

1. What patterns of grade repetition for learners with disabilities emerge from study findings?
2. What patterns of dropout for learners with disabilities emerge from study findings?
3. How do community dynamics influence primary school wastage of learners with disabilities?
4. How do parents, in particular, influence primary school wastage of learners with disabilities?
5. What in-school factors influence wastage of learners with disabilities and what is their impact?
6. How do learners’ perceptions of school and schooling influence wastage?
7. What effects does wastage have on learners and dropouts with disabilities?
1.7 Assumptions of the Study

This study was based on the following assumptions:

1. Schools and schooling have a much greater impact on wastage than out of school factors.

2. Study participants will be willing to have a candid discussion with the researcher on the wastage patterns of learners with disabilities, the factors influencing this wastage, its impact on learners and dropouts with disabilities, and measures for preventing it.

1.8 Limitations of the Study

This study had some limitations. First, the quantity and quality of data collected from participants with hearing impairments was adversely affected by the limited sign language skills of some of these participants. Some repeaters with hearing impairments had limited sign language skills. Getting them to understand a particular question was therefore a challenge, and when they understood it, they either gave shallow responses or no responses at all. To partly address this limitation, a school for learners with hearing impairments that was not initially sampled was added during the data collection phase of the study.

Second, and perhaps most unfortunate, not as much data as hoped for was collected from repeaters and dropouts. Getting repeaters was difficult perhaps because of the government policy which abolished repetition. Due to this policy, there may be less repetition in schools than before. This policy may also have influenced teachers to
minimize the extent of repetition in their schools and allow only few repeaters to be interviewed. Indeed, in one school, teachers said that learners did not repeat in that school, and therefore no repeater was interviewed.

Getting dropouts proved to be an even bigger challenge. Dropouts were located through information gathered from teachers and adults with disabilities known to the researcher or adults to whom the researcher was directed. Although these individuals often either knew, or knew of a person who had dropped out of primary school, they did not know where the dropout could be located.

To partly address this limitation, an initially not targeted group of study participants was included in the study late in the data collection phase. This additional group comprised of adults with hearing, physical and visual impairments who had previously attended special primary schools and units or integrated programmes in regular primary schools. These former learners provided information on repetition and dropout based on either their own personal experiences as repeaters and/or dropouts, or the experiences of other individuals with disabilities who they knew, including current learners of special schools and units or integrated programmes in regular schools.

1.9 Delimitations of the Study

In terms of scope, this study investigated the primary school wastage of learners with disabilities in Mombasa, Kwale and Kilifi counties of the Coast province of Kenya. It targeted learners with visual, physical and hearing impairments in special and regular
primary schools. Teachers and parents of these learners and persons with disabilities who dropped out of school and their parents also participated in the study. Other participants of the study were adults with disabilities, who were former learners of special schools and units or integrated programmes in regular schools. The focus on the wastage of learners with disabilities and the participants delimitations were aimed at addressing an area that has received limited research attention. The geographical delimitation gave the study a manageable research focus.

1.10 Significance of the Study
Primary school wastage has persisted in Kenya probably because of a limited understanding of the nature and extent of the phenomenon and the factors influencing it, as well as the lack of a theoretical model for intervention. From the findings of this study, some patterns of primary school wastage of learners with disabilities emerged. Findings also revealed the factors influencing the wastage of learners with disabilities, and the impact of wastage on learners and dropouts with disabilities. These findings have provided researchers with opportunities for conducting further research on the educational wastage of learners with disabilities. In addition, the findings of this study and the further research which will hopefully result from them, will enable the government and other stakeholders in education to gain a more comprehensive picture of the primary school wastage of learners with disabilities. A more comprehensive understanding of the educational wastage of learners with disabilities and the intervention model which partly resulted from it, will hopefully lead to the development of strategies for decreasing the wastage of these learners. A reduction in wastage will, in turn, ensure
that more learners complete primary school, and increase the likelihood of them completing secondary school and attaining educational and occupational success.

In addition to contributing to a more comprehensive understanding of the primary school wastage of learners with disabilities, and increasing their transition rates to higher levels of education and employment, the findings of this study have implications for career education and preparation of learners in school, curriculum development, and teacher training, recruitment and evaluation. These implications, if taken into account, will contribute to improvements in the quality of education and learners’ academic achievement, and more positive educational outcomes.

Thus, the findings of this study will hopefully benefit learners, teachers and researchers, and by contributing to improvements to the overall quality of education in Kenya, the society at large.

1.11 Theoretical Framework

In terms of its theoretical framework, this study draws on Henry Giroux’s (1983) theory of social reproduction. In this theory, Giroux, like all other social reproduction theorists, affirms that society is characterized by social class inequality which is reproduced with each new generation. Giroux further explains how social class inequality is reproduced. He contends that social class inequality is perpetuated through a dialectical relationship between forces in the social structure including: the overt and hidden curriculum of the school, labor market conditions and the economy; and human agency, that is, the ability
of individuals to reflect on experiences, form attitudes and beliefs and affect outcomes by acting in their best interests. According to Giroux (1983), therefore, social class inequality is reproduced because structural forces influence human action and vice versa.

Although Giroux’s theory is concerned with the reproduction of social class inequality, his theory can explain educational phenomena as well. This is because educational phenomena can also be viewed as a product of the link between social structure and human agency. Within this framework, the concern was to determine how structural forces such as in school and out of school factors affect and are affected by human agency such as children with disabilities’ views, beliefs and emotions, and how this dialectical relationship leads to wastage.
1.12 Conceptual Framework

Figure 1.1 Determinants of school wastage for learners with disabilities

**School Factors**
- Strained Teacher-learner relationships
- Poor pedagogical practices
- Inappropriate curriculum
- Incompetence in language of instruction

**Community Factors**
- Negative perception of disability
- Lack of role models
- Negative religious beliefs

**Family Factors**
- Parental child preference
- Family instability
- Family size
- Material deficiency

**Impact**
- Negative self-concept
- Academic disengagement
- Weakened school outcomes
- Low employability

**Wastage**
- Repetition
- Drop-out

**Children with disabilities’ views, beliefs, emotions**
The conceptual framework on page 14 demonstrates that wastage is a product of a bi-directional relationship: the interaction between family factors, community factors and school factors and that between these structural factors and the views, beliefs and emotions of children with disabilities. The conceptual framework also illustrates the effect of wastage on children with disabilities.
1.13 Operational Definition of Terms

Children with Disabilities – Children with disabilities are those with different types of impairments or disorders – individual conditions, sensory, physical, intellectual and/or behavioral, which interfere with their functioning. This study targeted three categories of children with disabilities: children with physical, visual and hearing impairments.

Curriculum – Curriculum refers to the officially approved and organized knowledge and skills taught and evaluated in schools.

Non-enrolled children – Refers to the proportion of primary school age children who have never attended school. Non-enrollment is viewed as a component of wastage because non-enrolled children, due to their lack of literacy skills, cannot achieve their maximum potential as productive members of society (Adapted from Achola & Pillai, 2000).

Primary School Dropouts – These are pupils who stop attending school before completing primary education. These children may resume school attendance after sometime (Adapted from Achola & Pillai, 2000).

Repeaters – These are pupils who learn in one class for two or more consecutive years.

School Wastage – Wastage is an economic concept. It refers to the extra years spent by repeaters and the years lost by dropouts in completing primary education relative to the total number of years spent by other children of the same cohort. This is viewed as a loss of investment. The concept also applies to non-enrolled children because they lack the essential knowledge and skills, which would make them productive members of society (Adopted from Achola & Pillai, 2000).
**Socio-cultural factors** – Socio-cultural factors refer to the aspects of community and school life, which contribute to primary school wastage. These factors are often rooted in the beliefs, values, norms and behavior of individuals and groups.

**Special School** – is an educational institution in which learners with one particular type of disability are educated by teachers specially trained to cater for their educational needs. In this study, special schools for learners with visual, hearing and physical impairments were targeted.

**Unit/integrated programme** – is an educational institution in which learners with and without disabilities socially interact and learn together, sometimes in the same class.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter provides a discussion of patterns in primary school wastage, and literature on the factors influencing educational wastage. Subsequently, literature on the impact of primary school wastage for learners and dropouts, and measures for preventing wastage is presented.

2.2 Overview of Primary School Wastage Patterns

Wastage is an economic concept. It refers to the extra years spent by repeaters and the years lost by dropouts in completing primary education relative to the total number of years spent by other children of the same cohort. The extra years spent by the repeaters and years lost by dropouts are viewed as a loss of investment. The concept also applies to children who have never enrolled in school because they lack the essential knowledge and skills, like basic literacy and numeracy, which would make them productive members of society. (Achola & Pillai, 2000).

Primary school wastage is a major obstacle to the achievement of universal primary education in Kenya and many other countries in the world (Achola & Pillai, 2000; MOEST, 2005a; UNESCO, 2010; UNESCO, 2011). In 2007, there were seventy two million primary school age children out of school worldwide. This figure “covers children who have dropped out of school temporarily or permanently, those who have not been to school but might start late, and those who will never go to school” (UNESCO,
Girls constituted 54% of the out of school population. South and west Asia and sub-Saharan Africa accounted for 70% of the out of school population in 2007. 44% of this out of school population is not expected to enroll in primary school (UNESCO, 2010).

There are regional differences in the non-enrollment rate. The non-enrollment rate in 2007 in the Arab states was almost 50%, 33% in south and west Asia, 25% in sub-Saharan Africa, and nearly 20% in East Asia and the Pacific (UNESCO, 2010). Besides non-enrollment, dropout is a serious problem in the primary education system (UNESCO, 2010; UNESCO, 2011). In half of the countries in south and west Asia and sub-Saharan Africa, for example, one third of children enrolled in primary school drop out before completing the primary cycle. In 2006, 13% of children enrolled in south and west Asia, and 9% enrolled in Sub-Saharan Africa dropped out of primary school before completing the first grade (UNESCO, 2010). In addition, repetition of classes is substantial in many countries, though reliable data demonstrating differences in repetition rates between and within regions is currently not available (UNESCO, 2010; UNESCO, 2011).

Sub-Saharan Africa, where Kenya is based, had thirty two million 400 thousand primary school age children out of school in 2007. This is equivalent to 45% of the out of school population worldwide (UNESCO, 2010). 59% of these children are never expected to enroll in primary school (UNESCO, 2010). The non-enrollment rate is higher for girls. Twelve million girls and seven million boys in sub-Saharan Africa are expected not to enroll in primary school (UNESCO, 2010). For those enrolled in primary school,
repetition of classes is substantial. For example, one third of primary school children in Burundi were repeating classes in 2006 (UNESCO, 2010). Furthermore, around ten million children drop out of primary school each year in sub-Saharan Africa (UNESCO, 2011). Dropout rates vary between boys and girls in many countries. For example, in Ethiopia dropout rates are higher for boys, while in Guinea dropout rates are higher for girls (UNESCO, 2011).

Differences in primary school wastage patterns are apparent not only between regions and the sexes worldwide, but also between marginalized and non-marginalized groups in society. Research from different countries demonstrates that marginalized groups such as: children from poor households, children in rural areas, children from racial, ethnic and religious minorities, and children with disabilities, are more likely to experience all three forms of educational wastage (UNESCO, 2010). UNESCO conducted an evaluation of educational deprivation as measured in years spent in school. This evaluation reveals that in several countries, including: Cambodia, Ghana, Guatemala, India, Nicaragua, Nigeria and Yemen, the incidence of having had less than four years of schooling among people living in poverty is double the national average (UNESCO, 2010). This figure indicates that in these countries, people living in poverty are twice as likely as other segments of the population to drop out of primary school before the end of the fourth grade. The UNESCO survey also reveals that in many countries, children from rural households, especially if they are also female and living in poverty, tend to have less years of schooling compared to those from urban households. In Nigeria, for example, the average poor rural female has had two years of schooling compared to 40% of the national
average and 25% of rich urban males (UNESCO, 2010). Pastoralist communities are also disadvantaged in education. In Uganda, for example, 85% of the Karamojong pastoralists have had less than two years of schooling (UNESCO, 2010).

Like people living in poverty and pastoralists, persons with disabilities are also marginalized in education. Research in several countries demonstrates a high rate of primary school non-enrollment for children with disabilities. In Malawi and Tanzania, for example, children with disabilities are twice as likely as their non-disabled counterparts to have never attended school, while in Burkina Faso the likelihood is more than double (UNESCO, 2010). The high rate of non-enrollment of children with disabilities is high even for countries that are closer to achieving universal primary education. In Bulgaria and Romania, for example, net enrollment ratios in 2002 were over 90%, but 58% for children with disabilities (UNESCO, 2010). The non-enrollment rate is higher for some categories of impairments. In Burkina Faso, for example, just 10% of seven to twelve year-olds who were deaf were in school in 2006 compared to 40% of those with physical impairments (UNESCO, 2010). Dropout rates also vary with categories of impairments. In Uganda, for example, recent research suggests that dropout is lower for individuals with visual and physical impairments relative to those with intellectual impairments (UNESCO, 2010).

Children from marginalized groups are not only likely to have never attended school and to drop out of school, they are also likely to learn less while in school, compared to their nonmarginalised counterparts (UNESCO, 2010). Research in sub-Saharan Africa
demonstrates a strong link between household wealth and learning as measured in test scores (UNESCO, 2010). A similar relationship is apparent in Latin America. For example, in Brazil, Mexico and Uruguay, children from the richest households achieved mathematics scores which were 25% to 30% higher than those of children from the poorest households (UNESCO, 2010). Furthermore, in a national assessment in Uruguay, only 36% of sixth graders from marginalized groups passed the mathematics test and 55% the language test, compared to 72% and 87% respectively of children from non-marginalised groups (UNESCO, 2010). For children with disabilities in many countries, learning is reduced, sometimes even hindered by inadequately resourced schools and classrooms, coupled with stigma and discrimination (UNESCO, 2010). Limited learning in school leads to repetition of classes (UNESCO, 2010; UNESCO, 2011). Thus, due to their limited learning in school, marginalized groups such as people with disabilities are likely to have higher rates of repetition compared to their non-marginalized counterparts.

As mentioned earlier, the primary school education system is inefficient in many countries due to a substantial amount of all three forms of wastage: non-enrollment, repetition and dropout from school. The research reviewed above further shows that primary school wastage patterns differ between regions of the world and between marginalized and non-marginalized groups in society. The discussion below will illustrate that the wastage patterns highlighted above are also apparent in Kenya.

Primary school wastage has been a characteristic of Kenya’s education system since the colonial period (Achola & Pillai, 2000). During the late 1950s and 1960s, non-enrollment
in primary education was quite high and dropout significant (Achola & Pillai, 2000). For instance, 30% of the 1959 standard one cohort had dropped out of school by standard five. The percentage of dropouts had risen to 33% when this cohort reached standard seven in 1965 (Achola & Pillai, 2000). Similarly, only 71% of the standard one cohort of 1962 reached standard five. And of these, 86% reached standard six and 80% standard seven. At this time, over 30% of children of primary school age were not enrolled in school. Repetition of grades was not substantial during this period (Achola & Pillai, 2000).

The Gross Enrollment Ratio peaked at 95% in 1989. However, wastage rose in the 1990s (MOEST, 2005a; United Nations, 2000). Primary school enrollment dropped to 76% by 1996, a drop of 19% in less than ten years (GOK & UNICEF, 1998). Besides a relatively high rate of non-enrollment, the 1990s were also characterized by high repetition and dropout rates in standard five to eight (Abagi & Odipo, 1997). During this period, about 10% of pupils were repeating classes each year. Dropout occurred in each class, but particularly in standard six, seven and eight (Abagi & Odipo, 1997).

In 2002, the Gross Enrollment Ratio stood at 87.6%. However, in 2004 after the implementation of the Free Primary Education programme, primary school enrollment grew to 99% (MOEST, 2005 a). However, around 1.5 million children of school-going age were not enrolled in school by 2005. Furthermore, between the mid-1990s and 2005, the cumulative dropout rate in primary education was as high as 40% and the repetition rate 14%. The survival rate over the decade was 40% (MOEST, 2005a).
Since 2005, primary school completion rates have improved substantially, reaching 81% in 2007 (Irvin, 2009). But this national average completion rate means that 19% of children do not complete the primary cycle. This national average also masks significant provincial variations (Irvin, 2009). In addition, studies indicate that repetition of the primary grades continues to be substantial (Irvin, 2009; Ruto et al. 2010).

Primary school wastage in Kenya is not only high, but it also exhibits regional and gender disparities. Research has established that non-enrollment and dropout affect more girls than boys, while repetition affects more boys than girls (MOEST, 1994). In terms of regional disparities, non-enrollment and dropout is high in counties of the Coast, North eastern and Rift Valley provinces (Abagi & Odipo, 1997; Irvin, 2009; MOEST, 1994; United Nations, 2000). For example, the net enrollment ratios between 2003 and 2007 averaged 91.6% nationally, but most districts of the North had very low net enrollment ratios, some as low as 20% (Ruto et al. 2010). Furthermore, available data from 2003 to 2007 demonstrate provincial variations in dropout rates, with the highest rates being recorded in Coast and North Eastern provinces (Irvin, 2009).

Besides gender and regional disparities, wastage affects certain social groups more than others. Non-enrollment and dropout are major problems in areas dominated by Muslims and in pastoralist communities (Achola & Pillai, 2000; MOEST, 1994; Ruto et al. 2010; Sifuna, 2005). In the arid and semi-arid counties populated mainly by nomadic and pastoralist communities, for example, enrollment rarely exceeds 20% of children of school-going age (Sifuna, 2005). Children from poor families, children with disabilities
and those in especially difficult circumstances, like those of refugee status and those orphaned by HIV and AIDS, are all more susceptible to experience all three components of wastage (Achola & Pillai, 2000; National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008).

It is these primary school wastage patterns over the last two decades, and the greater vulnerability of certain social groups to experience wastage, which have prompted researchers to investigate the phenomenon. Though studies have revealed a substantial amount of information on educational wastage, there is inadequate empirical data on the wastage patterns of marginalized groups and the factors influencing these wastage patterns. This is particularly true for learners with disabilities. For instance, research has revealed a very high rate of non-enrollment for learners with disabilities (MOEST, 2005a), but limited information about the factors influencing this high rate of non-enrollment. Furthermore, not much is known about the rates of repetition and dropout for learners with disabilities and the factors associated with these wastage patterns.

2.3 Educational Wastage and Its Contributors

Several studies have addressed factors that influence educational wastage. The available empirical data attributes educational wastage to three major groups of factors: economic factors, socio-cultural factors and factors related to school resources and facilities. The discussion below will focus on each group of factors in turn.
2.3.1 Economic Factors and Wastage

From the mid 1980s to 2003, the Kenyan economy performed poorly mainly due to the
dismal performance of the main growth sectors of agriculture, manufacturing and
tourism. The mean gross domestic product during this period was 2% (MOEST, 2005a).
Growth of the agricultural sector declined from 3.4% in 1990 to 2.2% in 2001; and the
manufacturing sector declined from a growth rate of 5.2% in 1990 to 0.18% in 2002
(MOEST, 2005a). Similarly, the growth of the tourism sector declined significantly due
to the infamous ethnic clashes in the 1990s and the 1998 and 2003 bomb blasts which
scared away potential tourists (MOEST, 2005a). This poor performance of the economy
contributed immensely to rising levels of poverty in the country. The proportion of the
population living in poverty is estimated to have risen from 48.8% in 1990 to 56.8% in
2004 (MOEST, 2005a).

Since 2003, Kenya has experienced some economic growth (GOK & UNICEF, 2010).
The highest rate of economic growth was evident between 2005 and 2007, when it
reached 7.1%. But partly due to the 2007-2008 post election violence and the global
financial crisis, this relatively high rate of economic growth declined to 1.7% in the 2007-
2008 fiscal year. Since then, a relatively slow rate of economic recovery has been
registered (GOK & UNICEF, 2010). This mixed performance of the economy since
2005, has not contributed much to the reduction in poverty, and in narrowing the gap
between the rich and poor in the country (GOK & UNICEF, 2010). The poverty situation
in Kenya has also been negatively affected by the back-to-back droughts that the country
has experienced over the last few years, as well as reductions in funding for poverty
alleviation programmes from donor countries (GOK & UNICEF, 2010). It is therefore not surprising that 46% of Kenyans were living below the poverty line in 2010 (GOK & UNICEF, 2010).

The high poverty levels in the country over the last three decades or so, have had a negative impact on the education system. (GOK & UNICEF, 2010; MOEST, 2005a). An increase in wastage patterns is one such impact (GOK & UNICEF, 2010; MOEST, 2005a). The economic factors outlined below are all linked, directly or indirectly, to poverty.

One economic factor that causes primary school wastage is the number of children per household (Okungu, 2004). This factor is particularly influential in causing school dropout. Okungu (2004) found out that families end up having too many children for several reasons, including: death of a child, polygamy, the belief that a couple must have a son, taking in orphans from co-wives or other relatives and the lack of family planning education. When the number of children per household is large, families have difficulty meeting school expenses. As a result, some children, especially girls, are forced to drop out of school. In cases where orphans are among the children in a family, older girls also have to drop out of school to take up the cultural role of taking care of their younger siblings (Okungu, 2004).

Okungu’s (2004) study established that the number of children per household leads to school dropout for learners without disabilities, particularly girls. But this factor may be
even more influential in the wastage of learners with disabilities. Given that children with disabilities are often perceived as less worthy relative to their peers without disabilities, parents may choose to have additional children precisely because they have a child with a disability. The presence of a child with a disability in a family may therefore prompt family enlargement. Furthermore, since parents are likely to incur more financial costs in caring for and educating offspring with disabilities than their non-disabled peers (Smith, Polloway, Patton & Dowdy, 2001), the greater number of children per household puts the educational participation of children with disabilities at more risk relative to their non-disabled peers. In effect, then, the number of children per household is likely to have greater influence on the wastage patterns of children with disabilities than those without disabilities. But the possible impact of the number of children per household on the wastage of children with disabilities needs to be investigated.

Lack of personal items also leads to wastage (Okungu, 2004). Girls from poor families often lack personal items for menstruation, such as: sanitary towels. Lack of items that provide them with relative comfort during menstruation causes them to suffer social stigma. Furthermore, the lack of other items, like new school uniforms and pocket money, makes both boys and girls feel different and unsettled. Lack of personal items causes low educational performance, repetition and drop out for learners without disabilities (Okungu, 2004).

Although many children with disabilities are likely to come from economically deprived families (Commission of Inquiry, 1999; Mont, 2005), and they are therefore likely to lack
some personal items like sanitary towels which may make them experience social stigma, the possible impact of lack of personal items on the wastage of children with disabilities has not been investigated in Kenya.

Another economic factor which leads to wastage is burdensome extra-curricula activities (Okungu, 2004). A lot of school children from poor families who often go without food at home find it difficult to stay in school due to the high-energy extra-curricula activities that they have to engage in. Pupils have to do cross-country races, slash tall grass, clean toilets, and cook for teachers and the like (Okungu, 2004). These burdensome extra-curricula activities contribute to school dropout (Okungu, 2004).

Reviewed literature does not document whether or not learners with disabilities from poor families, particularly learners with physical impairments, engage in burdensome extra-curricula activities in school, and whether these activities contribute to their repetition and dropout.

The HIV and AIDS pandemic has several economic effects, which contribute to educational wastage (MOEST, 2005a; Okungu, 2004; Ruto et al. 2010). It has robbed, and continues to rob the country of competent teachers who are either dying or too sick to work. The reduction in competent teachers contributes to the declining quality of education (MOEST, 2005a). The diversion of substantial financial resources from the education to the health sector, also contributes to the decline in educational quality. Declining educational quality, in turn, contributes to low educational performance,
repetition and dropout from school (MOEST, 2005a). Children, particularly girls, also dropout of school to look after younger siblings and perform household chores when their mothers are busy taking care of ailing fathers or other relatives, or when mothers have to work outside the home (Okungu, 2004).

Some of these children have to work themselves if the family has lost a breadwinner due to HIV and AIDS. For example, Ruto et al. (2010) were informed of a number of orphans who were heading families, some of whom had to drop out of school to engage in child labour so as to support their siblings. In these cases, child labor is absolutely critical to family survival. (MOEST, 2005a; Okungu, 2004; Ruto et al. 2010; Wa Mahiu & Njau, 1994).

Available research has investigated the influence of the economic effects of HIV and AIDS on the educational performance and wastage of learners without disabilities in Kenya. But the impact of the economic effects of HIV and AIDS on the educational performance and wastage of learners with disabilities in Kenya has not been empirically established.

Another economic factor which causes wastage is the costs of schooling (National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; Ruto et al. 2010; UNESCO, 2010). Many countries have abolished official primary school fees (UNESCO, 2010). But a substantial amount of parents’ income in many of these countries is still used for meeting school-related expenses such
as: paying for uniforms, textbooks and teachers’ pay. For poor families, these schooling expenses compete with other basic needs, like food and health care (UNESCO, 2010).

The situation in Kenya reflects the global trend described above. Due to the free primary education programme, primary schools in Kenya do not charge any fees. But families often have to incur other costs of schooling, including: paying school levies, and paying for desks, stationary (to supplement what is provided through the free primary education programme), and school uniforms. Parents of children in boarding schools have to meet the additional cost of boarding fees (Ruto et al. 2010). Ruto et al. report that parents incur various schooling costs: examination and test fees (ranging from 20 to 900 shillings per term), money for extra teaching for children in upper primary and secondary schools (ranging from less than 20 to 400 shillings per term), salaries for teachers employed by the parents-teachers association/Board of governors (ranging from less than 90 to 2000 shillings per parent per term), feeding costs for schools running school feeding programmes (ranging from less than 20 to 700 shillings per term), stationary (ranging from 20 to 3700 shillings per term), the cost of a desk at the time of admission in a few schools (ranging from 20 to 300 shillings), the cost of school uniforms annually (worth at least 200 shillings), and transport costs for children in secondary and boarding schools.

Costs of schooling lead to the non-enrollment and dropout of children without disabilities and the dropout of learners with disabilities from primary school (National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; Ruto et al. 2010; UNESCO, 2010). In Cambodia, Malawi and Uganda, for example, costs
of schooling have been cited as a major reason for dropping out of primary school (UNESCO, 2010). In a survey of fifty slums of Delhi India, costs of schooling are blamed for both non-enrollment and dropout from primary school (UNESCO, 2010). In Kenya, Ruto et al. (2010) established that costs of schooling are a major cause of primary and secondary school dropout of children without disabilities. Furthermore, in a national survey of persons with disabilities in Kenya, the National Coordinating Agency for Population and Development and the Kenya National Bureau of Statistics (2008) report that 39% of persons with disabilities who had dropped out of primary and secondary school did so because they could not meet the costs of schooling. Given that only a small percentage of persons with disabilities are reported to have attended secondary school (National Coordinating Agency for Population and Development and Kenya National Bureau of Statistics, 2008), many of these school dropouts are likely to be primary school dropouts.

There is limited research on the impact of schooling costs on the dropout of learners with disabilities, and hardly any research on the impact of these costs on the non-enrollment and dropout of children with disabilities.

Child labor is another economic factor which contributes to primary school wastage (GOK & UNICEF, 2010; MOEST, 1994; Okungu, 2004; Ruto et al. 2010; UNESCO, 2011). Economically deprived families often encourage their children to engage in income generating activities to supplement family income. Many children begin engaging in child labour during school holidays. The work they engage in often depends on the
economic activities of a particular area of the country. But the main activities documented in the literature on Kenya are those related to agriculture, livestock rearing, fishing, tourism, domestic work for girls, child commercial sex work and serving as middlemen in the sale of drugs. (GOK & UNICEF, 2010; MOEST, 1994; Okungu, 2004; Ruto et al. 2010). Child labor contributes to wastage because when some children start generating a bit of income during school holidays, they find it hard to go back to school when schools reopen. They only go back if they are forced to do so, and even then for a short period of time. The ability to obtain some little money to look after oneself becomes an irresistible motivation. Eventually these children drop out of school completely (GOK & UNICEF, 2010; MOEST, 1994; Okungu, 2004; Ruto et al. 2010).

Ruto et al. (2010) report that girls leave school to engage in domestic work in people’s homes for pay, while boys leave school to operate bodabodas (that is, bicycles or motorcycles which are used to carry people and/or luggage for a fee) and fetch water for pay. In addition, girls engage in commercial sex work. Ruto et al. (2010) were informed that poor girls are sometimes encouraged by parents and other relatives to fend for themselves using their bodies. These girls are reported to linger along the Mombasa-Nairobi and Mombasa-lungalunga highways and the beaches, and become easy prey for track drivers and tourists respectively.

The sexual abuse and exploitation of poor girls without disabilities is also reported in Okungu’s (2004) study:
The most extreme side of poverty is seen in the sexual abuse and exploitation… [of] girls…This is widespread at the beaches [of Nyang’oma division, Bondo district]. Fishermen engage in stiff competition for schoolgirls. The girls in the area start getting exposed to the ill intentions of fishermen at the beaches when they are encouraged by their parents to take small jobs over the weekend like repairing fishing nets for monetary rewards (p. 73).

Girls interviewed by Okungu (2004) reported that once their colleagues start engaging in commercial sex and earning an income, at least Kshs.100, they soon drop out of school.

There is some empirical support for the contribution of child labour to the dropout of children without disabilities. But the influence of child labour on the primary school wastage of children with disabilities requires investigation.

In sum, then, primary school wastage is caused by several economic factors, all of which are directly or indirectly linked to poverty. But despite the fact that many children with disabilities come from poor families (Commission of Inquiry, 1999; Mont, 2005; Yeo, 2001), the influence of economic factors on wastage has largely been empirically established for children without disabilities.

**2.3.2 Socio-cultural Factors and Wastage**

Socio-cultural factors refer to the non-economic aspects of community and school life, which contribute to primary school wastage. These factors are often rooted in the beliefs,
values, norms and behavior of individuals and groups. The socio-cultural factors discussed below relate to both school and community life.

One socio-cultural factor which leads to primary school wastage is circumcision (Abagi & Odipo, 1997; Achola & Pilai, 2000; MOEST, 1994). Circumcision is an indirect contributor to wastage. It contributes to wastage because it often leads to absenteeism during circumcision season when children have to prepare themselves for the ceremony (MOEST, 1994). Furthermore, the content of the ceremony engenders negative attitudes in children. After being circumcised children begin to view themselves as adults who do not fit in an institution for children. These children often undermine teachers’ authority, especially if the teachers come from communities which do not practice circumcision (Abagi & Odipo, 1997; MOEST, 1994). School absenteeism and pupils negative attitudes and indiscipline leads to low educational performance, repetition and dropout. The risk of dropout is higher for girls who, rather than return to school after circumcision, are married off by their parents (Achola & Pillai, 2000; MOEST, 1994; Wa Mahiu & Njau, 1994). The impact of circumcision on wastage has been established for learners without disabilities, but not for learners with disabilities.

Another factor which causes the wastage of children without disabilities is involvement in household work (Juma, 1993; Wa Mahiu & Njau, 1994). Research has shown that due to substantial school enrollment children’s involvement in household work has diminished somewhat (Juma, 1993; Wa Mahiu & Njau, 1994). But children are still engaged in a considerable amount of domestic and farm work during weekends and
school vacations. In addition, while boys are often relieved of their chores during school days, girls have to perform theirs before and after school every day (Wa Mahiu & Njau, 1994). Involvement in household work decreases children’s study time and thereby often contributes to a decline in academic performance (Juma, 1993; Okungu, 2004; Wa Mahiu & Njau, 1994). Limited study time and declining academic performance, in turn, contribute to repetition and dropout. Girls experience more wastage compared to boys due to their greater involvement in household work (Juma, 1993; Wa Mahiu & Njau, 1994). This factor is a major contributor to the high dropout rate of girls in parts of the coast province (Juma, 1993).

Reviewed literature documents neither the nature and extent of the involvement of children with disabilities in household work, nor the impact of this factor on the wastage of these children.

Teenage pregnancy also causes wastage (Okungu, 2004; Ruto et al. 2010; Wa Mahiu & Njau, 1994). In the past, families in many African countries used to provide sex education to their offspring. But this is no longer the case. The school has not been able to replace the family in the performance of this function (Wa Mahiu & Njau, 1994). In many African countries, including Kenya, people are opposed to having sex education in the school curriculum. When it is included, it is poorly taught because teachers are not well trained to adequately cover the subject; and/or a narrow focus is adopted, so that emphasis is placed on family life largely and little or no time is given to sex and contraception education. (Wa Mahiu & Njau, 1994). Limited or lack of information on
sex education generally, and contraceptives in particular, has ensured that some school girls become victims of teenage pregnancy. (Okungu, 2004; Wa Mahiu & Njau, 1994). For example, the study by Ruto et al. (2010) reveals that teenage pregnancy is quite common among primary and secondary school learners in Kwale County; Kinango district had 32 reported cases of teenage pregnancy in only one term, and most of the visited schools in Kwale district had cases of teenage pregnancy.

Although Government policy requires that teenage mothers be allowed to come back to school after delivery, and some studies report that this policy is being enforced (Ruto et al. 2010), teenage pregnancy makes a substantial contribution to the dropout of learners without disabilities from school (Okungu, 2004; Ruto et al. 2010; Wa Mahiu & Njau, 1994). Girls dropout of school when they become pregnant partly due to the financial constraints that accrue from having a child (Okungu, 2004). But often they are forced to drop out by fathers who view their daughters’ discontinuation from school as a punishment for becoming pregnant. Alternatively, fathers choose to marry them off in an attempt to avoid being subjected to the cultural sanctions associated with pre-marital sex and pregnancy (Okungu, 2004). It is this fear of cultural sanctions, which may also prompt fathers to discontinue their other daughters’ education when older siblings become pregnant. The belief is that keeping younger daughters at home under close supervision will prevent them from becoming pregnant (Okungu, 2004).

But perhaps the greatest deterrent for girls’ resumption of school after delivery is the social stigma and humiliation they believe they will experience, or which they actually
experience at school (Okungu, 2004; Ruto et al. 2010). Okungu (2004) reports that teachers often view these girls as a bad influence for their colleagues and the pupils emulate this attitude. Other pupils subject the teenage mothers to taunts and other forms of ridicule. As a result, social interactions between the teenage mothers and other pupils at school are severely strained. Many of these girls opt not to resume school after delivery to avoid this social stigma and humiliation (Okungu, 2004; Wa Mahiu & Njau, 1994).

As a former learner at schools for the blind, the researcher knows that conjugal relations among learners with visual impairments in these schools are quite common. Some of these relations result in teenage pregnancy. The situation may be the same in other special schools and units for learners with disabilities. But the prevalence of teenage pregnancy for learners with disabilities, and the impact of teenage pregnancy on the wastage of these learners have not been empirically established.

The preference for the education of some children over others is another socio-cultural factor which causes wastage. Many parents prefer to educate some children over others. Reviewed literature reveals a preference for the education of boys over that of girls (Juma, 1993; MOEST, 1994; Okungu, 2004), and preference for the education of children without disabilities over their counterparts with disabilities (Commission of Inquiry, 1999). Many parents prefer to educate boys over girls because they believe that girls will get married and be unable to contribute to family sustenance while boys will be able to do so because they will remain at home. Parents further argue that girls who are not educated may be able to do well in life due to the success of their husbands. But boys have to work
hard for their own and their families’ success (MOEST, 1994; Okungu, 2004). Some parents also argue that boys are more likely to attain educational and occupational success because they are more serious pupils, and labour market conditions favor them over their female counterparts (Juma, 1993; Wa Mahiu & Njau, 1994).

With regard to preference for the education of children without disabilities over those with disabilities, many parents contend that children without disabilities are likely to attain educational and occupational success while children with disabilities are not. The lack of enough visible adults with disabilities with high educational attainment and high occupational status, the reasons notwithstanding, strengthens the parents’ argument. (Commission of Inquiry, 1999).

Thus, parents prefer to educate their boys and children without disabilities to girls and those with disabilities largely because of expected future economic returns for the family. Girls experience all three forms of wastage due to this preference. (Juma, 1993; MOEST, 1994; Okungu, 2004). For children with disabilities, this preference leads to non-enrollment. Over 90% of children with disabilities in Kenya are not in school, and preference for the education of those without disabilities is a major contributor to this high rate of non-enrollment (Commission of Inquiry, 1999; MOEST, 2005a). The possible impact of the preference for the education of children without disabilities over those with disabilities on the repetition and dropout of children with disabilities has hardly been researched in Kenya.
Another contributor to wastage is family problems (Demerath, 1997; Giroux, 1997). Family problems tend to have a negative impact on children’s education. These problems include: sickness of family members, divorce of parents, and civil strife. Family problems distract learners from schoolwork (Demerath, 1997; Giroux, 1997). As a result, they may contribute to declining educational performance, repetition and dropout. For instance, Giroux (1997), reports a link between family problems and dropout among Native American students in the United States. Reviewed literature does not document the influence of family problems on the wastage of learners with and without disabilities in Kenya.

Lack of competence in English also leads to wastage (Demerath, 1997; Juma, 1993). Research has shown that competence in English (as the medium of instruction) is a significant contributor to learners’ success in schools (Demerath, 1997; Juma, 1993). It influences pupils’ understanding of subject content, and whether or not they ask and answer questions in class (Demerath, 1997). Consequently, Competence in English tends to improve educational performance. Pupils’ competence in English is closely associated with parental level of education and competence in the language (Juma, 1993).

Given the relatively high number of parents with little or no formal education in at least some parts of the country (Achola & Pillai, 2000; Juma, 1993; United Nations, 2000), and the positive relationship between parental level of formal education and competence in English and children’s competence in the language, it is logical to assume that competence in English for a substantial number of learners in Kenya is wanting. Yet the
impact of competence in English on the wastage of children with and without disabilities has received limited research attention in Kenya.

Peer influence also contributes to wastage (Demerath, 1997; Mac’leod, 1995). Research has shown that peer influence impacts learners’ level of academic engagement (Demerath, 1997; Mac’leod, 1995). When learners associate with peers who accord importance to academic pursuits, they are likely to work toward academic success (Mac’leod, 1995). Conversely, learners who associate with peers who devalue academic pursuits are likely to put little effort in their schoolwork (Mac’leod, 1995).

Available literature suggests that peers influence academic engagement more negatively than positively (Demerath, 1997; Mac’leod, 1995; Palmer, 1997). For instance, Demerath (1997), reports that over half of the students he surveyed said that it was hard to be a good student. These high school students told Demerath that colleagues teased them when they studied a lot, influenced them to skip classes and leave study halls in the evenings and ridiculed them if they failed a test or answered a question wrongly in class despite their studying. Furthermore, Demerath (1997) reports that students told colleagues that given the limited educational and occupational opportunities after high school, studying would not get them anywhere. In cases where learners form a peer subculture in opposition to the school like one of the high school peer groups studied by Mac’leod (1995), loyalty to the peer group is viewed as far more important than educational pursuits (Mac’leod, 1995). Negative peer influence leads to low academic engagement, low academic performance and dropout (Demerath, 1997; Mac’leod, 1995).
In Kenya, the impact of peer influence on academic engagement, and its influence on repetition and dropout of learners with and without disabilities has hardly been researched.

Besides demonstrating that peer influence contributes to wastage, Mac’leod’s 1995 study also reveals that occupational aspirations influence wastage. Mac’leod’s central focus in this study is the occupational aspirations of lower class white and black teenage youth, who he nicknamed the “Hall-way Hangers” and the “Brothers” respectively, and how these affected their educational attainment and occupational success. This study was longitudinal, spanning the youth’s high school years to their early adulthood years. Mac’leod (1995) reports that negative high school experiences, rejection of the school’s “achievement ideology”, – which stipulated that American society was characterized by equality of opportunity and that school success led to occupational success - awareness of labor market conditions, loyalty to a peer group which acted in opposition to the school, lack of role models and lack of parental encouragement for high occupational aspirations, all prompted the Hall-way Hangers to develop low occupational aspirations. These, in turn, discouraged them from pursuing educational success. Over time, most of the Hall-way Hangers dropped out of school. The brothers, by contrast, had high occupational aspirations because they believed in the achievement ideology, belonged to a peer group which did not constitute a subculture against the school, and were encouraged to attain educational success by parents and other relatives. High aspirations motivated them to complete high school despite their low levels of achievement (Mac’leod, 1995). Thus,
Mac’leod’s (1995) study demonstrates that low occupational aspirations lead to low levels of academic engagement, low academic performance and school dropout.

In a country like Kenya, where a substantial percentage of the learner population is of lower class status (MOEST, 2005a; United Nations, 2000), Mac’leod’s 1995 study is very relevant. It portrays that lower class learners’ ability to attain educational and occupational success is hampered by many structural factors. However, it demonstrates that high occupational aspirations could serve as a mediating factor, enabling a person to attain educational and occupational success in spite of the obstructing structural forces. But the contribution of learners’ occupational aspirations and academic engagement to the wastage of learners with and without disabilities has hardly been researched in Kenya. Yet research of learners with disabilities on related phenomenon suggests the need for such an investigation. For instance, in a rapid assessment of the education and training needs of children with disabilities, Koech et al. (2001) justify an investigation of the relationship between lowered occupational aspirations and wastage. Students interviewed in this study conveyed professional ambitions, which require university education. But adults involved in the students’ education often thwarted these ambitions. “There… (was) a gap between children’s dreams… and the perspectives or beliefs of others, including parents (and) professionals” (Koech, et al. 2001: p. 53).

Mwathi (1998) also suggests an investigation of the impact of low aspirations on wastage of children with disabilities. Mwathi (1998), reports that students with disabilities generally had low educational aspirations. Low educational aspirations were partly linked
to a negative self-concept. Based on these findings, Mwathi (1998) recommends research on the relationship between educational aspirations, socioeconomic status and students’ academic achievement. This recommendation in effect justifies an investigation of the influence of low educational aspirations and low academic achievement on wastage.

Another factor which leads to wastage is overage enrollment (Moyi, 2010; UNESCO, 2010). Overage enrollment is particularly serious in Sub-saharan Africa (UNESCO, 2010). In 2007, for example, half of all countries in Sub-saharan Africa had 50% or more children entering primary school later than the official age (UNESCO, 2010). According to Moyi (2010), Malawi is a case in point. Moyi (2010), reports that a substantial number of children in Malawi enter primary school two or more years later than the official age of six years. Moyi’s (2010) study on the household factors which influence delayed school entry was partly precipitated by this relatively high rate of overage enrollment in Malawi. Participants in this study attributed delayed school entry, defined as two or more years late, to various factors, including: the level of education of the head of the household, being in a female-headed household, distance between home and school, schooling costs, the need to help with domestic chores, and the need to engage in wage employment (Moyi, 2010).

Overage enrollment contributes to wastage, because children who are older than their classmates may be ashamed of their age difference with colleagues and may develop feelings of inferiority and a low self esteem (UNESCO, 2010). Feelings of shame and a low self esteem are more likely to set in if an overage child in a class experiences ridicule
and stigma from younger classmates (UNESCO, 2010). These negative feelings may in turn encourage frequent absenteeism, low educational performance, repetition and dropout (UNESCO, 2010). Moyi’s (2010) study demonstrates that delayed school entry leads to primary school dropout. In this study, 18% of 10-14 year-olds who entered school late dropped out of primary school compared to only 7% of those who enrolled at the official age of six years.

Overage enrollment is a characteristic of Kenya’s education system (Commission of inquiry, 1999; Irvin, 2009; Ruto et al. 2010). Irvin’s (2009) analysis of educational statistics over a ten year period reveals an overage enrollment rate of at least 10%, Ruto et al. (2010) report that 7.1% of the primary school children sampled for their study started school after nine years, and the Commission of Inquiry into the Education System of Kenya (1999) report a relatively high rate of overage enrollment for learners with disabilities. Despite the fact that overage enrollment is a characteristic of Kenya’s education system, the influence of overage enrollment on the primary school wastage of learners with and without disabilities has hardly been researched in Kenya.

Frequent absenteeism from school also leads to wastage of learners with and without disabilities (Dunn, chambers & Rabren, 2004; Reid, 1999; Ruto et al. 2010; Wagner, 1991). Learner absenteeism is relatively common in both primary and secondary schools (Reid, 1999; Ruto et al. 2010; Wagner, 1991). Reid (1999) reports that around a million primary and secondary school children in Britain miss school every day; and Ruto et al. (2010) report that around 20% of primary school learners in the Kenyan schools sampled
for their study are absent on any given day. Furthermore, findings of the national longitudinal transition study of special education students in the United States reveal that learners with disabilities were absent from secondary school an average of fifteen days in their most recent school year; and a quarter of these learners were absent twenty days or more (Wagner, 1991). Causes of frequent absenteeism include: illness and treatment (Ruto et al. 2010; Wagner, 1991), strained peer and teacher-learner relationships (Reid, 1999; Wagner, 1991), dislike of one or more subjects (Reid, 1999; Wagner, 1991), involvement in domestic and farm work (Ruto et al. 2010; Wagner, 1991), schooling costs (Ruto et al. 2010), and distances to school (Ruto et al. 2010).

Frequent absenteeism often leads to less teacher-learner contact, low academic achievement, repetition and dropout from school (Reid, 1999; Ruto et al. 2010; Wagner, 1991). The national longitudinal transition study of special education students in the United States, for example, demonstrates that frequent absenteeism leads to school dropout. In this study, only 5% of learners who were absent ten days or fewer in their last school year dropped out, compared to 10% of those absent twenty-one to thirty days, and 27% of those absent more than thirty days (Wagner, 1991). Similarly, Dunn et al. (2004) report that 15% of dropouts with learning disabilities and 8% of dropouts with mild mental retardation identified frequent absenteeism as a major reason for their dropping out of high school. Although research has established that frequent absenteeism is a characteristic of primary schools in Kenya (Abagi & Odipo, 1997; Ruto et al. 2010), the impact of frequent absenteeism on the wastage of learners with and without disabilities has hardly been investigated in Kenya.
Negative teacher attitudes and expectations is another factor which causes wastage (Juma, 1993; MOEST, 1994; Sherrow, 1999). Research has shown that teachers often have negative attitudes and expectations of learners from social minority groups (Juma, 1993; MOEST, 1994; Sherrow, 1999). Juma (1993), reports that teachers said that girls were usually better behaved, less achievement oriented and less academically capable than boys. Similarly, Sherrow (1999) reports that high school students with learning disabilities were viewed by teachers as difficult to teach, and less attentive. These negative attitudes and expectations prompted teachers to treat girls and boys and children with and without disabilities differently. This differential treatment influenced the children’s level of academic engagement and academic performance (Juma, 1993; Sherrow, 1999).

Negative teacher attitudes and expectations lead to repetition and dropout from school (Sherrow, 1999). Sherrow (1999), reports that negative teacher attitudes and expectations led to the provision of inappropriate educational services, and lack of support and peer acceptance for learners with disabilities in the United States. These conditions were a constant source of frustration for these students. Frustration then led to a dislike of school, low levels of academic engagement, low performance, repetition and eventually dropping out (Sherrow 1999). According to Sherrow (1999), negative teacher attitudes and expectations is a major contributor to the high rate of high school dropout of learners with learning disabilities in the United States. The influence of negative teacher attitudes and expectations on the wastage of learners with and without disabilities seems not to have been investigated in Kenya.
Strained teacher-learner relationships also lead to wastage (Kortering & Braziel, 1999b; Mac’leod, 1995; Okungu, 2004; Palmer, 1997; Reid, 1999). Research has shown that teacher-learner relationships are not always harmonious (Kortering & Braziel, 1999b; Mac’leod, 1995; Okungu, 2004; Palmer, 1997; Reid, 1999). For instance, Mac’leod’s (1995), study reveals strained teacher-learner relationships. In coping with the difficulties of growing up poor in the United States, the white teenage boys that Mac’leod (1995) interviewed developed a set of survival skills of which they were very proud. Their lives also enabled them to attain maturity and independence quite early in life. Mac’leod (1995), reports that these students did not like most teachers because the teachers neither empathized with them, nor did they appreciate their survival skills, maturity and independence. As a consequence, rather than being a source of support and encouragement, these students felt that the teachers were an additional source of stress. (Mac’leod, 1995).

Teacher-learner relationships are strained not only because learners perceive teachers as non-empathetic, but also because male teachers take advantage of female learners (Okungu, 2004). Okungu (2004) reports that teacher-pupil affairs ran in the full knowledge and view of other teachers. This habit of preying on female pupils created a tension between parents and male teachers. Parents had negative attitudes towards male teachers and accorded them negative labels. These attitudes influenced pupils’ perceptions of these teachers. The pupil’s negative perceptions were exacerbated by the behavior that teachers portrayed in school. These pupils’ attitudes and feelings towards their teachers had a negative impact on their academic engagement and performance.
(Okungu, 2004). Thus, strained teacher-learner relationships contribute to low levels of academic engagement and low academic performance. Furthermore, Mac’leod (1995) and Palmer (1997) demonstrate that negative teacher-student relationships lead to dropout. The nature of teacher-learner relationships and the influence of these relationships on the wastage of learners with and without disabilities in Kenya require investigation.

A related contributor to wastage is poor pedagogical practices. Available literature indicates that poor pedagogical practices are a barrier in children’s classroom participation and learning. (Demerath, 1997; MOEST, 1994; MOEST, 2005a). Criticisms of teaching include: teacher unpreparedness, use of wrong teaching methods and teacher absenteeism. (Demerath, 1997; MOEST, 1994). Demerath (1997) reports that teachers often put work on the board for students to do and left the classroom, or they told students to copy material from textbooks. This practice denied students the opportunity to ask questions or seek clarification. Demerath (1997) further reports that many teachers failed to link the curricula content to students’ home background, and that this problem hampered their learning. According to Demerath (1997), lack of preparation for lessons was also a problem. Due to lack of preparation, teachers often failed to go to class. (Demerath, 1997).

Teacher unpreparedness, use of wrong teaching methods and teacher absenteeism have also been reported in Kenya (MOEST, 1994). The use of wrong teaching methods is partly attributed to inadequate training of teachers and current educational policy.
(MOEST, 2005a). The current educational policy stipulates that teachers should be able to teach all the primary school subjects. But the two years of teacher training cannot enable a teacher to attain mastery in subject content and pedagogical skills for all the subjects. (MOEST, 2005a). Poor pedagogical practices lead to low levels of academic engagement and a decline in educational performance (Demerath, 1997; MOEST, 1994; MOEST, 2005a).

Although research has demonstrated that poor pedagogical practices lead to low levels of academic engagement and a decline in academic performance in Kenyan schools (MOEST, 1994; MOEST, 2005a), the influence of poor pedagogical practices on the wastage of learners with and without disabilities has not been investigated in Kenya.

Ambivalence about investment in formal education also causes wastage (Demerath, 1997; Mac’leod, 1995; Okungu, 2004). Research indicates that learners and their parents are ambivalent about investment in formal education. (Demerath, 1997; Mac’leod, 1995; Okungu, 2004). Okungu (2004) reports that learners realized that participation in formal education would improve their prospects for further education and employment. But they felt that the likelihood of them getting further education and employment opportunities is too small. Okungu (2004) reports that this ambivalence was fueled by the many unemployed high school and university graduates that these learners knew. Furthermore, learners told Okungu (2004) that there were a substantial number of adults in the study area who were doing well financially yet they did not go to school.
Demerath (1997) and Mac’leod (1995) also report students’ ambivalence about investment in formal education. These researchers further report that parents were equally ambivalent. Consequently, with the exception of paying school fees, many parents did not encourage their children’s educational pursuits. They did not ensure that their children did homework and other assignments or aid them in any school work (Demerath, 1997; Mac’leod, 1995). Learners’ ambivalence about investment in formal education prompted them to commit little time and effort in the process. As a result, their performance declined, and, in some cases, this led to repetition and dropout from school. (Mac’leod, 1995; Okungu, 2004). Though ambivalence about formal education is a likely possibility for a substantial number of learners in Kenya given their relatively low prospects for higher education and employment, there has been little research on the impact of this factor on the wastage of learners with and without disabilities.

From the foregoing then, it is apparent that several socio-cultural factors cause school wastage. However, only limited research on the influence of these factors on wastage has been carried out in Kenya. Much of this limited research focuses on the socio-cultural factors contributing to the wastage of children without disabilities. The socio-cultural factors influencing the wastage of children with disabilities have hardly been researched, even though research on related phenomena justifies the need for such an investigation.

2.3.3 Other factors and wastage

Research indicates that educational wastage is brought about by other factors, which are arguably neither economic nor socio-cultural. Many of these relate to school resources and facilities. They include: limited schools given the demand which forces children to
walk long distances from home to school, and leads to overcrowding in schools (Commission of Inquiry, 1999; MOEST, 1994; MOEST, 2005a; 2005b; Wa Mahiu & Njau, 1994); the high pupil/teacher ratio in densely populated areas (Kenya National Union of Teachers & Education International, 2006; MOEST, 2005a); and limited specialized equipment and other learning material, particularly for children with disabilities (Juma, 1993; Koech et al. 2001; MOEST, 2005a). These factors contribute to all three forms of educational wastage. As the citations above demonstrate, these factors have received substantial research attention in Kenya.

2.4 Impact of Wastage

Research studies have documented the impact of wastage on learners and dropouts. The next two sections summarize study findings on the effects of repetition and dropout respectively.

2.4.1 Impact of Repetition

Reviewed literature indicates that repetition has a largely negative impact on learners (Bonvin, Bless & Schuepbach, 2008; Nagaoka & Roderick, 2004; Okungu, 2004; Penna & Tallerico, 2005). Three main effects can be identified from this literature: low academic achievement over time, negative socio-emotional consequences and school dropout (Bonvin et al. 2008; Nagaoka & Roderick, 2004; Okungu, 2004; Penna & Tallerico, 2005).

In many education systems, among them Kenya’s education system, repetition is used as a means of improving the academic achievement of learners who perform poorly (Bonvin
et al. 2008; Nagaoka & Roderick, 2004; Okungu, 2004; Palme, 1998). Repeaters are usually learners with low academic achievement, who have failed to achieve the set objectives for a particular class or grade level. Repetition is intended to enable them to learn the curricula content for that class a second time, so they can improve their academic achievement and thereby meet the set requirements for that class (Bonvin et al. 2008; Nagaoka & Roderick, 2004; Okungu, 2004; Palme, 1998). However, despite the good intentions of educators towards learners whose academic performance falls below the required standard, research demonstrates that repetition does not lead to the outcome intended (Bonvin et al. 2008; Nagaoka & Roderick 2004). For instance, findings of a nationwide Swiss study show that early in the academic year, the academic achievement of learners who repeated second grade improved compared to their new classmates. But this progress begins to decline as the year progresses, and by the end of the third grade, their academic achievement is lower than that of classmates (Bonvin et al. 2008).

Nagaoka and Roderick (2004) report similar findings in the United States. In Nagaoka and Roderick’s (2004) study, only 60% of repeaters in the third and sixth grade managed to raise their academic achievement to the required standard by the end of the repetition year. But two years later, the academic achievement of learners who repeated third grade had stagnated, and the academic achievement of learners who had repeated the sixth grade declined (Nagaoka & Roderick, 2004).

Consistent with the findings of the two studies discussed above, Penna and Tallerico (2005), report that repeaters had no long-term improvement in academic achievement. In
fact, the academic achievement of repeaters who participated in Penna and Tallerico’s (2005) study did not improve even during the repetition year. In this case, therefore, the repetition year did not yield even short-term academic benefits.

In addition to continued poor performance, Penna and Tallerico (2005) report negative socio-emotional consequences of repetition. Repeaters in Penna and Tallerico’s (2005) study report that their initial reaction to being asked to repeat a class was frustration with themselves and their schools. These repeaters also felt that the decision to hold them back while their classmates went to the next class was unfair (Penna & Tallerico, 2005). Besides their own emotional reactions to repetition, interviewed repeaters told Penna and Tallerico that they experienced social stigma from their new classmates. These study participants said that their classmates ridiculed them for being “dumb” and for being overage in-grade. Furthermore, participants reported that occasionally teachers added insult to injury by making remarks that drew public attention to their repetition (Penna & Tallerico, 2005).

The negative socioemotional consequences of repetition have also been reported in Kenya (Okungu, 2004; Ruto et al. 2010). Ruto et al. (2010) report that repeaters, who constituted a sizable population in the primary and secondary schools studied, were embarrassed about being older than their classmates and they tended to be demotivated about coming to school. Absenteeism from school often resulted from these emotional consequences of repetition (Ruto et al. 2010).
Okungu (2004), reports that repeaters were ridiculed by their classmates for being overage in-grade. Girl repeaters said that they were ridiculed more than boy repeaters because they often grew much bigger than boy repeaters. These girls also reported that sometimes teachers made negative comments about their age and physical growth when they failed to answer questions correctly. Demoralization and the development of a negative attitude towards education were a consequence of this social stigma (Okungu, 2004).

It is these negative socio-emotional effects of repetition, and the failure of repetition to lead to long-term improvements in academic achievement, that prompt a substantial number of repeaters to drop out of school (Okungu, 2004; Palme, 1998; Penna & Tallerico, 2005). Jimerson et al. (2006), report that repetition increases the risk of dropping out by 20 to 50%. Palme (1998), reports that many repeaters in primary schools in Mozambique opted to drop out because repetition made them lose confidence in their academic abilities and dislike school. Furthermore, dropouts interviewed by Okungu (2004) and Penna and Tallerico (2005) all cited repetition as a major reason for dropping out of school. Penna and Tallerico (2005) explain how repetition leads to dropout thus: “participants in this study affirmed that being overage for grade, (a direct consequence of repetition), predisposed them to drop out of school... They didn’t fit in. They came to believe they never would. They lost hope. Ultimately, they exited” (p. 14). Moreover, Reschly and Christenson (2006) report a statistical association between repetition and dropout for individuals with learning disabilities, emotional and behavior disorders and those without disabilities.
As the above paragraphs demonstrate, an investigation of the impact of repetition on learners without disabilities has received significant research attention in some countries. In Kenya, however, research on the impact of repetition on learners without disabilities has been limited, and the impact of repetition on learners with disabilities has hardly been conducted. This is the case despite the fact that Kenya’s education system is characterized by a substantial amount of repetition (Abagi & Odipo, 1997; Irvin, 2009; Okungu, 2004; Ruto et al. 2010).

**2.4.2 Impact of Dropout**

Research on the impact of dropout is more limited than that on the impact of repetition. This may be partly related to the difficulty of tracing dropouts after they leave school. In addition to being very limited, this research has focused mainly on high school dropouts rather than primary school dropouts. However, high school and primary school dropouts are likely to experience the same or a similar impact, since dropping out of primary school is in effect dropping out of high school.

The available literature indicates that dropping out of school has a negative impact on dropouts with and without disabilities (Blackorby, Edgar & Kortering, 1991; Mac’leod, 1995; Penna & Tallerico, 2005; Reschly & Christenson, 2006; Wagner, 1991).

Dropouts have very limited opportunities for further formal education (Penna & Tallerico, 2005; Reschly & Christenson, 2006), higher rates of unemployment (Blackorby et al. 1991; Penna & Tallerico, 2005; Wagner, 1991), less income when
employed (Blackorby et al. 1991; Penna & Tallerico, 2005; Reschly & Christenson, 2006), and a higher likelihood of being involved in criminal activities and being imprisoned (Blackorby et al. 1991; Penna & Tallerico, 2005). Since research findings demonstrate that a substantial number of high school graduates with disabilities do not succeed in adulthood (Pierangelo & Giuliani, 2004; Reschly & Christenson, 2006), this impact is greater for dropouts with disabilities than for those without disabilities (Reschly & Christenson, 2006).

The research findings reported above resulted from quantitative studies. Qualitative studies have yielded similar findings. Mac’leod’s (1995) study is a case in point. As stated earlier in this chapter, the participants in Mac’leod’s (1995) study were white and black youth which he nicknamed the “Hall-way Hangers” and the “Brothers” respectively. The post high school experiences of the Hall-way Hangers, who dropped out of high school, document the impact of dropout. During interviews with these participants, Mac’leod gathered that by their mid twenties, none of these youth had attained further education. In addition, all of these youth recount difficult post high school experiences. Since high school, the Hall-way hangers had been unemployed, engaged in unreliable wage employment, or acting as middle men in the sell of cocaine. They all had abused drugs and/or alcohol, and they had all been in conflict with the law. The legal offences of the Hall-way Hangers included: wife beating, ignoring court sermons, being in possession of drugs, armed robbery and attempted murder. Due to these and other legal offences, all the Hall-way hangers had spent time in prison. Mac’leod (1995), reports that these negative post high school experiences, which largely
resulted from their dropout from school, had been the source of tremendous pain and
disappointment for the Hall-way Hangers. For one of the Hall-way Hangers, the anguish
was so unbearable that he attempted suicide several times. Though research has
established that primary school dropout is quite substantial in Kenya (Irvin, 2009), the
impact of dropout on dropouts with and without disabilities has hardly been investigated.

2.5 Prevention of Wastage
The negative impact of repetition and dropout discussed above provided at least part of
the impetus for investigating measures for decreasing, if not eliminating, these forms of
school wastage. Research findings on measures of preventing wastage are the focus of
the next few pages.

The discussion on contributors of wastage earlier in this chapter demonstrated that
learners’ low academic achievement, attributed to various factors, is a primary cause of
repetition and dropout from school. Consequently, strategies for facilitating learning and
improving learners’ academic achievement are identified in the scholarly literature as a
major way of preventing repetition and dropout (Denton, 2001; Hardre & Reeve, 2003;
Jimerson et al. 2006; Penna & Tallerico, 2005; Wagner, 1991).

One of these strategies is an effective reading instruction programme spanning the
preschool to early primary school years (Jimerson et al. 2006). Problems in reading are
associated with low academic performance and repetition of classes (Denton, 2001;
Jimerson et al. 2006). Ensuring that learners attain proficiency in reading as early as
possible in their school years is therefore viewed as a means of enabling learners to understand curricula content and attain high academic achievement, and thereby a means of preventing repetition and dropout from school (Denton, 2001; Jimerson et al. 2006).

Another strategy for facilitating learning and improving academic achievement is a curriculum that learners can connect with and perceive as relevant to their future lives (Dunn et al. 2004; Kortering & Braziel, 1999a). First year high school students with learning disabilities and emotional and behaviour disorders told Kortering and Braziel (1999a) that better textbooks and additional course variety would prevent them from dropping out of school. Similarly, dropouts with learning disabilities, mild mental retardation and those without disabilities informed Dunn et al. (2004), that “helpful classes” which prepared them to live and work in the community would have helped them to stay in school. Thus, a curriculum that learners perceive as relevant to their future lives increases their motivation to learn, improves their academic achievement and decreases the likelihood of school dropout (Dunn et al. 2004; Kortering & Braziel, 1999a).

A third strategy for facilitating learning and improving learners’ academic achievement is involvement of parents, siblings and out-of-school friends in education (Denton, 2001; Hunt et al. 2002; Jimerson et al. 2006; Marion, 2008). Learners’ parents, siblings and out-of-school friends may have a positive or negative influence on the educational process (Jimerson et al. 2006; Marion, 2008). For instance, Siblings and friends can influence a learner to stay in school or dropout (Marion, 2008). Some of the dropouts interviewed by Marion (2008) said that they left school because their older siblings or
out-of-school friends had dropped out. Furthermore, dropouts told Marion (2008) that their parents encouraged them to drop out of school to help with housework, participate in the family business, take care of younger siblings, and/or to give them companionship. Some parents of these dropouts also contributed to their dropping out by moving a lot and necessitating regular school transfers for their children (Marion, 2008).

Developing a positive attitude about school among learners’ families and out-of-school friends is important in ensuring that learners do not discontinue their formal education. Welcoming learners’ parents, siblings and out-of-school friends in school helps to engender a positive attitude towards education. Schools can welcome learners’ families and out-of-school friends into the school by organizing social events like sports competitions and talent shows, to which families and out-of-school friends are invited (Marion, 2008). Parents can also be provided with opportunities to have informal consultations with school staff, and offered with incentives to attend formal parent-teacher meetings (Marion, 2008). And whenever possible, parents could be trained on how to provide help with homework and other academic work (Jimerson et al. 2006; Marion, 2008). Families and out-of-school friends support for learners’ education improves learners’ academic engagement, enhances academic achievement, and decreases the likelihood of repetition and dropping out of school (Denton, 2001; Marion, 2008).

A fourth and perhaps the most important strategy for facilitating learning and preventing school wastage is effective teaching (Hardre & Reeve, 2003; Jimerson et al. 2006;
Kortering & Braziel, 1999a; 1999b; Penna & Tallerico, 2005; Reschly & Christenson, 2006). Effective teaching involves, among other things, the use of various instructional techniques to match different learners’ learning pace and styles (Jimerson et al. 2006; Penna & Tallerico, 2005), connecting lessons to learners’ lives (Hardre & Reeve, 2003), addressing learners’ specific learning needs (Kortering & Braziel, 1999a; 1999b; Reschly & Christenson, 2006), regularly assessing and monitoring learners’ academic progress and behaviour and implementing necessary remediation strategies before learners exhibit poor academic performance (Denton, 2001; Jimerson et al. 2006; Reschly & Christenson, 2006), and nurturing learners’ motivation to learn by enabling them to believe in their capabilities (Hardre & Reeve, 2003). Effective teaching requires substantial financial investment in personnel training, and the equipping of teachers with appropriate material resources (Jimerson et al. 2006; Penna & Tallerico, 2005). But since research demonstrates that effective teaching reduces the rates of repetition and dropout from school (Jimerson et al. 2006; Penna & Tallerico, 2005), the financial investment is worthwhile.

The above and similar strategies for facilitating learning, reduce repetition and dropout rates because of their direct contribution to learners’ academic success. Another means of preventing wastage, particularly dropout from school, are indirect contributors to learners’ academic success (Kortering & Braziel, 1999b; Marion, 2008; Reschly & Christenson, 2006; Wagner, 1991). This set of strategies indirectly contributes to learners’ academic success by according them with a socioemotional environment conducive to learning. These strategies, which include positive relationships with
teachers and in-school peers, enable learners to identify with a school and experience a sense of belonging (Kortering & Braziel, 1999b; Marion, 2008; Reschly & Christenson, 2006; Wagner, 1991).

Research suggests that relationships between learners and teachers have a significant influence on learners’ feelings towards school (Dunn et al. 2004; Hunt et al. 2002; Macleod, 1995). Interviewed teachers told Hunt et al. (2002) that learners identify with a school when they perceive their teachers as caring and people who they can go to with a problem. Furthermore, Dunn et al. (2004) report that relationships with teachers can influence learners with disabilities to drop out or stay in school. Dunn et al. (2004) further report that having one or more teachers who were perceived as “helpful” decreased the likelihood of dropping out. Among students with disabilities who dropped out, 23% said that none of their teachers was “helpful,” while only 8% of those who did not drop out said so (Dunn et al. 2004). Similarly, dropouts with learning disabilities, behaviour disorders and mild mental retardation told Kortering and Braziel (1999b) that a “caring attitude” from teachers would have helped them to stay in school, and would prevent other learners from dropping out. Thus, positive relationships between teachers and learners can reduce dropout rates.

Positive interactions between learners and in-school peers are also associated with a reduction in dropout rates (Kortering & Braziel, 1999a; Marion, 2008). 52% of the interviewed high school students with learning disabilities, behaviour disorders and mild mental retardation told Kortering and Braziel (1999a) that socializing with in-school
peers was the “best” part of school. This importance that learners accord to positive relationships with in-school peers is affirmed in Marion’s (2008) study. However, research suggests that learners often have negative relationships with in-school peers (Kortering & Braziel, 1999a; Marion, 2008; Reschly & Christenson, 2006). The negative relationships between learners and their in-school peers can often be attributed to the physical and/or emotional stress caused by peers (Marion, 2008), and to learners’ poor interpersonal skills (Kortering & Braziel, 1999a). For instance, many learners with disabilities have poor interpersonal skills which make it difficult for them to develop and maintain positive relationships with peers in school (Kortering & Braziel, 1999a; Pierangelo & Giuliani, 2004). For other learners, like the dropouts interviewed by Marion (2008), negative relationships with in-school peers resulted from the physical and/or emotional abuse caused by peers. Physical stress was usually caused by bullying by peers, while emotional stress stemmed from social isolation and ridicule by peers, which made learners feel inferior (Marion, 2008).

Negative interactions with in-school peers may lead to “social alienation, loss of motivation, and eventually disengagement from school activities… [and]dropping out” (Kortering & Braziel, 1999a: p. 111). Sixteen of the thirty-seven learners interviewed by Marion (2008) cited physical and/or emotional stress caused by in-school peers as a major reason for dropping out of high school. Schools must therefore engender positive interactions among learners if they want to reduce dropout rates (Kortering & Braziel, 1999a; Marion, 2008). Learners with poor interpersonal skills should be provided with social skills training (Kortering & Braziel, 1999a). In addition, other learners, especially
those who relate to colleagues inappropriately, may require counseling (Marion, 2008). All learners should also be provided with various informal opportunities for one-on-one as well as group social interactions (Kortering & Braziel, 1999a; Marion, 2008).

Drop out from school can be reduced not only by measures which contribute directly or indirectly to learning, but also by dropout retrieval programmes (Kortering & Braziel, 1999b). Research suggests that dropout status is not a permanent condition; a learner can drop out of school, stay home for a while, and then return to complete primary or secondary education (Achola & Pillai, 2000; Blackorby et al. 1991; Kortering & Braziel, 1999b). In their study, Blackorby et al. (1991) compared high school graduates and dropouts with learning disabilities, behaviour disorders and mild mental retardation, in order to determine the factors that led some students to graduate and others to drop out. Blackorby et al. (1991) report that among the participants in their study, 74% of those who had discontinued formal education before the study, returned to school within a year after they left. Furthermore, 12% of the graduates in Blackorby et al’s (1991) study had discontinued their formal schooling once, 2% twice, and 2% more than twice. Moreover, 64% of the interviewed dropouts with learning disabilities, behaviour disorders and mild mental retardation told Kortering and Braziel (1999b) that they would consider returning to school. These dropouts with disabilities told Kortering and Braziel (1999b) that dropout retrieval programmes are among the things which would prompt them to go back to school.
Thus, reviewed literature indicates that repetition and dropout from school can be prevented by measures which directly contribute to learning and academic success. Furthermore, dropout can be reduced by a social climate which is conducive to learning and dropout retrieval programmes. But these research findings on prevention of wastage did not result from studies in Kenya.

2.6 Summary

In sum, then, empirical data reveal a substantial amount of primary school wastage in Kenya. Available data also demonstrates that certain social groups are more susceptible to experience wastage than others. These include: girls, children from economically deprived families, children from Muslim and pastoralist communities and children with disabilities. Despite the increased vulnerability of these social groups to experience wastage, it is only the wastage patterns of girls which have received substantial research attention. The situation is worst in relation to children with disabilities. There is some empirical data on the high rate of non-enrollment of children with disabilities in Kenya, but not much is known about the repetition and dropout rates of these learners. In addition to revealing the extent of wastage, research attributes wastage to three groups of factors: economic factors, factors related to school resources and socio-cultural factors. In Kenya, however, research on the wastage of children without disabilities has focused mainly on economic factors and factors related to school resources, while research on the wastage of children with disabilities has focused largely on factors related to school resources. The impact of economic factors on the wastage of children with disabilities, and the impact of socio-cultural factors, particularly socio-cultural factors within the
school system, on the wastage of children with and without disabilities has received limited research attention. Yet research on related phenomena, especially in relation to children with disabilities, highlights the need for such research. Furthermore, research reveals the impact of repetition and dropout on learners and dropouts, and measures for preventing wastage. In Kenya, however, the impact of repetition for learners without disabilities has received limited research attention, while the impact of repetition for learners with disabilities has hardly been researched. The impact of dropout for dropouts with and without disabilities, and the measures for preventing wastage have also not been researched in Kenya.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter discusses the research procedures that were used in carrying out this study. These are: the research design, variables, the study’s location and target population, sampling techniques, sample size, instruments, piloting, validity and reliability, methods of data collection and data analysis, and logistical and ethical issues.

3.2 Research Design and Locale

In this section, the research design, variables and study location are discussed.

3.2.1 Research Design

This was a mixed methods study, which facilitates the collection and analysis of both quantitative and qualitative data in a single study. Such a study capitalizes on the strengths of both quantitative and qualitative research so as to gain a better understanding of a research problem (Creswell, 2005; Creswell, 2009). This study’s investigation of the determinants of primary school wastage of learners with disabilities was greatly enhanced by the collection of both quantitative and qualitative data. Quantitative data provided information on wastage patterns, while qualitative data provided in-depth information from study participants in natural settings on wastage patterns, factors contributing to wastage, the impact of wastage on learners and dropouts, and the measures for preventing wastage. Thus, through the collection of both quantitative and qualitative data, a more
comprehensive understanding of the phenomenon of educational wastage was gained, than if either quantitative or qualitative data alone was obtained.

Within the mixed methods approach, the research design was triangulation. The triangulation mixed methods design enables a researcher to simultaneously collect “both quantitative and qualitative data, compare results from the analysis of both data sets, and make an interpretation as to whether the results from both data support or contradict each other” (Creswell, 2005: p. 514). The triangulation mixed methods design was particularly useful in revealing patterns of grade repetition and dropout of learners with disabilities.

3.2.2 Variables

The variables for this study were primary school wastage and the factors attributed to it.

3.2.2.1 Independent Variables

The factors influencing wastage were the independent variables for this study. Factors influencing wastage include economic and socio-cultural factors. Economic factors often relate to poverty. For this study, the indicators included: lack of personal school items and child labour. Socio-cultural factors are the non-economic aspects of community and school life, which are often rooted in the beliefs, values, norms, and behaviour of individuals and groups. For this study, they included: community and family values, learners’ educational and occupational aspirations, learners’ and parents’ perceptions of school and schooling, teacher attitudes and expectations, pedagogical practices and teacher-learner relationships.
3.2.2.2 Dependent Variable

Wastage was the dependent variable for this study. Wastage is an economic concept, which refers to the extra years spent by repeaters and the years lost by dropouts in completing primary education relative to the total number of years spent by other children of the same cohort. This is viewed as a loss of investment. The concept also applies to non-enrolled children because they lack the essential knowledge and skills, which significantly diminishes their productive potential as members of society (Achola & Pillai, 2000). More specifically, this study focused on repetition and dropout as dependent variables. Data collected facilitated an assessment of the possible impact of the various types of factors on the repetition and dropout of children with disabilities.

3.2.3 Location of the Study

This study was carried out in the Coast Province of Kenya. This province was chosen because it is characterized by significant wastage problems (Achola & Pillai, 2000; Irvin, 2009; MOEST, 1994). More specifically, the study was carried out in Mombasa, Kilifi and Kwale counties. These counties lie on the Indian Ocean. About 500 kilometers from Nairobi, is Mombasa County. To its north is Kilifi county and to its south Kwale county. The Mijikenda and Swahili people constitute a substantial part of these counties’ population. The majority of these counties’ resident’s are Muslims. The economy of this region benefits from farming, fishing, tourism and local industries including an oil refinery and the Bamburi Cement factory (www.wikipedia.com).
The study was carried out in Mombasa, Kilifi and Kwale counties to ensure the selection of schools for learners with hearing impairments, learners with physical impairments and learners with visual impairments, as well as three units or integrated programmes in regular schools, one for each of the aforementioned categories of impairments. Studying special schools and units or integrated programmes was useful for comparison purposes. Special schools and units or integrated programmes could only be combined in this manner if the study location encompassed at least three counties.

### 3.3 Target Population

**Table 3.1: Target Population**

<table>
<thead>
<tr>
<th>Counties</th>
<th>School</th>
<th>Head teacher</th>
<th>Teachers</th>
<th>Learners</th>
<th>Parents of learners</th>
<th>Drop outs</th>
<th>Parents of drop outs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mombasa</td>
<td>Port Reiz School for the Physically Handicapped</td>
<td>1</td>
<td>13</td>
<td>252</td>
<td>252</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Likoni School for the Blind</td>
<td>1</td>
<td>16</td>
<td>126</td>
<td>126</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Kwale</td>
<td>St. Joseph Unit for the Hearing Impaired</td>
<td>1</td>
<td>15</td>
<td>17</td>
<td>17</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Lukore Integrated Programme for the Physically Handicapped</td>
<td>1</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Kilifi</td>
<td>Kibarani School for the Deaf</td>
<td>1</td>
<td>15</td>
<td>170</td>
<td>170</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Kibarani Integrated Programme for the Visually Impaired</td>
<td>1</td>
<td>14</td>
<td>36</td>
<td>36</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6</strong></td>
<td><strong>85</strong></td>
<td><strong>613</strong></td>
<td><strong>613</strong></td>
<td><strong>20</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Table 3.1 shows that the targeted study population included three special schools and three special units or integrated programmes for learners with physical, visual and
hearing impairments, one hundred and eighty seven learners with hearing impairments, one hundred and sixty two learners with visual impairments, two hundred and sixty four learners with physical impairments, and eighty five primary school teachers. Table 3.1 further shows that six hundred and thirteen parents of learners, and twenty primary school dropouts and their parents were targeted.

### 3.4 Sampling Techniques and Sample Size

This section describes the sampling techniques and the size of the sample.

#### 3.4.1 Sampling Techniques

The study combined purposive and snowball sampling techniques. The counties, special primary schools and special units or integrated programmes in regular primary schools, primary school repeaters and other learners, parents of primary school repeaters and primary school teachers were purposively sampled. Mombasa, Kwale and Kilifi counties were purposively sampled on the basis of having special schools and/or special units or integrated programmes for learners with visual, hearing and physical impairments. Primary schools were purposively sampled on the basis of having learners with any of the three impairments stated above. Teachers were purposively sampled on the basis of their understanding of the wastage experiences of learners with disabilities. Primary school repeaters and other learners were purposively sampled on the basis of having a physical, hearing and/or visual impairment, having first-hand and/or second-hand experiences of wastage, and the class they were in. Only learners with disabilities in standard six, seven and eight participated in the study. Having been in the school system for several years,
these learners were more likely to have had first-hand or second-hand experiences of wastage. Therefore, compared to their colleagues in lower classes, they were better able to convey their understanding of this phenomenon. Parents of repeaters were purposively sampled on the basis of having at least one child with a physical, visual and hearing impairment in a special school or special unit/integrated programme who had repeated standard six, seven and/or eight.

Primary school dropouts with hearing, visual and physical impairments and their parents were sampled using the snowball procedure. School personnel were requested to assist in identifying the initial group of dropouts and their parents, who then provided information about other dropouts and their parents.
### 3.4.2 Sample Size

**Table 3.2: Sampling grid**

<table>
<thead>
<tr>
<th>Counties</th>
<th>School</th>
<th>Head teacher</th>
<th>Teachers</th>
<th>FGD Participants</th>
<th>Repeaters</th>
<th>Dropouts</th>
<th>Parents of Learners</th>
<th>Parents of Dropouts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mombasa</td>
<td>Port Reiz School for the Physically Handicapped</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Likoni School for the Blind</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Kwale</td>
<td>St. Joseph Unit for the Hearing Impaired</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Lukore Integrated Programme for the Physically Handicapped</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Kilifi</td>
<td>Kibarani School for the Deaf</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Kibarani Integrated Programme for the Visually Impaired</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6</strong></td>
<td><strong>12</strong></td>
<td><strong>72</strong></td>
<td><strong>24</strong></td>
<td><strong>12</strong></td>
<td><strong>6</strong></td>
<td><strong>12</strong></td>
<td><strong>144</strong></td>
</tr>
</tbody>
</table>

Table 3.2 summarizes the sample size. The table shows that in each targeted special school and unit or integrated programme for learners with hearing, visual or physical impairments, the head teacher, two teachers, twelve learners who participated in Focus Group Discussions, four repeaters, a parent of a repeater and two dropouts and their parents were sampled. Thus, the total number of sampled participants per school was twenty-four, and the total number of sampled participants for the study was one hundred and forty four.
3.5 Research Instruments

In this study, quantitative data was collected through documentary analysis of school attendance registers, while qualitative data was collected through two methods: key informant interviews and focus group discussions (FGDs).

Analysis of school attendance registers facilitated the acquisition of information on the patterns of repetition and dropout. Interviewing facilitated the acquisition of detailed information on patterns of repetition and dropout, factors influencing wastage, impact of wastage and measures for preventing wastage. Key informant interviews enabled the researcher to use interview guides which facilitated probing during interview sessions, and allowed the researcher to target the participants who understood the phenomenon of educational wastage best (Patton, 1990). As interviews, focus group discussions facilitated the acquisition of detailed information on patterns of repetition and dropout, factors influencing wastage, impact of wastage and measures for preventing wastage. The Focus Group Discussion was chosen as a method of collecting data from learners because these study participants were more likely to be forthcoming in the provision of information in groups than when interviewed as individuals. Since these three methods of data collection have strengths and weaknesses, they complemented each other, and made it possible for data obtained using one method to be corroborated with that obtained using another method (Creswell, 2009).
Three types of research instruments were developed: a school registers analysis guide, a focus group discussion (FGD) Guide and several interview guides. All these instruments are in the appendices section.

3.5.1 School Register Analysis Guide

The school register analysis guide consists of six questions. All these questions addressed objective 1 of this study on the patterns of grade repetition and dropout.

3.5.2 Interview Guides

Interviews targeting key informants, - parents of repeaters with disabilities, parents of dropouts with disabilities, primary school dropouts, repeaters, head teachers and teachers - were conducted. Six interview guides were therefore developed. All these interview guides had two parts. The first part of the interview guides for repeaters, dropouts, parents of dropouts and parents of repeaters contained questions which served as a rapport creator, which was intended to make these participants feel at ease and create a conducive atmosphere for answering the rest of the questions on the interview guides. The first part of the interview guide for head teachers and teachers was a bio data sheet which they filled in. The second part of all the interview guides consisted of questions and probes, which addressed the objectives of the study.
3.5.3 Focus Group Discussion Guide

Standard six, seven and eight learners participated in Focus Group Discussions. The Focus Group Discussion Guide which was developed for them had two parts. The first part had questions which served as a rapport creator, which was intended to make the learners feel at ease and create a conducive atmosphere for answering the rest of the questions on the Focus Group Discussion guide. The second part of the Focus Group Discussion Guide contained questions and probes, which addressed the study’s objectives.

3.5.4 Pilot Study

To pre-test the research instruments discussed above, a pilot study was carried out at Kwale School for the Deaf and Kafuduni Unit for the Hearing Impaired, which were not included in the main study. It was impossible to target all the three categories of learners with disabilities used in the main study for the pilot study because of the few special schools in the Coast province. Furthermore, the researcher was not able to locate dropouts and their parents during the pilot study. Piloting of the research instruments provided useful information which facilitated modification of some of the research instruments.

The pilot study revealed that several questions and probes in the interview guide for repeaters and the Focus Group Discussion guide contained language which was difficult for learners to understand. This was the case for questions 3, 4, 5, 7, 8 and 9 in the Focus Group Discussion guide; and questions 3, 4 and 5 in the interview guide for repeaters. In
their initial formulation, all these questions did not elicit responses. All these questions were subsequently rephrased in simpler language. The pilot study also showed that a two-part question, question 1, on the interview guide for repeaters and the Focus Group Discussion guide seemed compound for learners. This question only elicited responses when its two parts were asked one at a time. The question was subsequently split into two different questions. Furthermore, the pilot study demonstrated that contrary to the researcher’s previous perception, learners with hearing impairments found it easier to respond to the rapport creator orally using sign language than in writing. When these questions were asked orally, they elicited quick responses and created a conducive environment for learners to respond to the other questions of the interview and Focus Group Discussion guide. Hence, the rapport creator was modified so its questions can be answered orally. The other research instruments did not pose any problems. These instruments were therefore not modified before data collection for the main study.

**3.5.5 Reliability and Validity**

Reliability was assured through the piloting of research instruments. Piloting facilitated modification of the pre-tested research instruments, and thereby the collection of more accurate data. Expert opinions from supervisors were also sought. Supervisors were requested to evaluate the research instruments to ensure their reliability.

Validity was assured through triangulation. Triangulation of different methods and sources facilitated the gathering of similar and different types of data and a study of the
topic from multiple perspectives. Thus, triangulation enhanced the credibility of the collected data (Creswell, 2005; Creswell, 2009).

3.6 Data Collection

Logistical and ethical considerations and the process of data collection are discussed in this section.

3.6.1 Logistical and Ethical Considerations

One logistical issue which was addressed, was obtaining permission to conduct this research study from the Ministry of Science and Technology. The proposal for this study was presented to the relevant authorities to facilitate the speedy granting of permission.

Two ethical issues were addressed. First the informed consent of study participants was obtained. Participants were informed of the main purpose of the study and its importance for them as stakeholders in education. Informed consent was sought on this basis.

Second, information provided by study participants had to be treated with confidentiality. Confidentiality was assured by protecting the anonymity of study participants. Protecting participants’ anonymity was important to encourage them to provide sensitive information pertinent to the study. Guaranteeing participants’ anonymity was especially critical in relation to providing data on the patterns of repetition in schools. The government policy prohibits repetition of classes. Therefore, Head teachers and teachers were often reluctant to disclose the extent of repetition in their schools to outsiders like
the researcher. To protect participants’ anonymity, their names and the names of institutions with which they were affiliated will not be disclosed. Participants were informed of this strategy.

3.6.2 The Data Collection Process

Data collection for this study involved collecting school attendance registers for four classes (standards 5-8) for four consecutive years, conducting Focus Group Discussions with learners in standards six, seven and eight, as well as conducting interviews with: head teachers, teachers, repeaters, parents of repeaters, dropouts and their parents, and former learners.

Data was collected in the six sampled schools, as well as a seventh one, which was added during data collection. Addition of another school was considered necessary to enrich the data collected from learners with hearing impairments.

3.6.2.1 Collecting School Attendance Registers

School attendance registers were collected in order to analyse enrolment and obtain information on the learners who repeated classes and dropped out of primary school. In all schools, obtaining school attendance registers proved to be a challenge. From some of the schools, the researcher could only get registers when she produced a letter from the District Education Officer directing head teachers to provide them to her. But even where registers were easily availed, the sixteen registers that were needed could often not be obtained, because some were either misplaced or lost.
3.6.2.2 Conducting Interviews

Six head teachers were interviewed from six schools. In the seventh school, where a unit for learners with hearing impairments was based, the head teacher was not available for an interview. The informed consent of each head teacher was sought and obtained before he/she was interviewed. Interviews with head teachers lasted at least one hour each.

Two teachers were interviewed in each special school and special unit or integrated programme in a regular school. The informed consent of each teacher was sought and obtained before he/she was interviewed. Interviews with teachers took at least half an hour each.

The four repeaters sampled per school were obtained in only some of the institutions. In other institutions, three or less repeaters were availed for interviewing. In one special school and one special unit no repeaters were interviewed. In the special school, the head teacher said they had no repeaters. In the unit, no repeater was interviewed, since there were no learners with disabilities in standard six, seven or eight. The informed consent of each repeater was sought and obtained before he/she was interviewed. Interviews with repeaters took fifteen minutes each.

Interview sessions with dropouts, guardian and parent of dropouts, and parents of repeaters were conducted at locations chosen by these participants and time convenient for them. The informed consent of parents of repeaters, dropouts and parent and guardian of dropouts was sought and obtained before each of these participants was interviewed.
The interviews with parents of repeaters, parent and guardian of dropouts and dropouts lasted about thirty minutes each.

Data was also collected from former learners of special schools and special units or integrated programmes. This group of study participants was added late in the data collection phase. The addition of this group of study participants was considered useful in capturing the learner’s point of view, since interviewed repeaters and participants in the Focus Group Discussions did not yield as much data as was hoped for. All former learners were interviewed at times and locations which were convenient for them. The informed consent of each former learner was sought and obtained before he/she was interviewed. Interviews with former learners took at least one hour each.

Six head teachers, fourteen teachers, fifteen repeaters, six parents of repeaters, four dropouts, a parent and a guardian of dropouts, and six former learners were interviewed. Interviews were all conducted by the researcher. In some interviews only English or Kiswahili was used; in other interviews, both English and Kiswahili were used. The language used was dependent on the interviewee’s preference. With the exception of one interview, interviews were tape recorded. It was not possible to tape record one interview because the interviewee, a parent of a repeater, did not want to be on tape. This interview was scribed.
3.6.2.3 Conducting Focus Group Discussions

The researcher intended to convene two Focus Group Discussions of six learners each in every school, one constituting female pupils only and the other male pupils only. But it was possible to do this in only four of the seven institutions. In a fifth institution, an integrated programme for learners with visual impairments, only the Focus Group Discussion for boys was conducted; the girls with visual impairments in standard six, seven and/or eight could not constitute a Focus Group. In the remaining two institutions, an integrated programme for learners with physical impairments and a unit for learners with hearing impairments, no Focus Group Discussions were conducted. The unit for learners with hearing impairments had no learners in standard six, seven or eight. In the integrated programme for learners with physical impairments, neither boys nor girls with disabilities in standard six, seven and/or eight could constitute a Focus Group. To partly address this problem, the interviewed repeaters in this integrated programme responded to questions from both the Focus Group Discussion guide and the interview guide for repeaters. The informed consent of participants was sought and obtained before each Focus Group Discussion was conducted. The conducted focus group discussions took about one hour each.

Fifty-four learners participated in focus group discussions. All focus group discussions were conducted by the researcher. English and Kiswahili were both used in all focus group discussions. All The focus group discussions were tape recorded. Overall, the total number of participants for this study was one hundred and seven.
3.7 Data Analysis

Both quantitative and qualitative data were collected for this study. School attendance registers constituted the quantitative data. This quantitative data addressed study objective 1. School attendance registers were analysed to determine patterns of grade repetition and dropout of learners with disabilities. Data analysis involved following the class progression of each learner (or lack of it) as reflected in the school attendance registers, and then determining the number of repeaters and dropouts as a percentage of class size.

The qualitative data consisted of data from interviews and focus group discussions. This data, which was meant to address study objectives 1, 2 and 3, was first prepared for analysis. This involved typing up the interviews and focus group discussions to obtain data transcripts. This process of converting audio interviews and focus group discussions into typed transcripts began before the data collection process was complete. When the data collection process was complete and all interviews and focus group discussions were typed up, analysis of this qualitative data involved organizing the data into categories or themes and labeling them. An interpretation of both sets of data was then obtained.

To address objective 4, a conceptual analysis was conducted. This analysis suggested a theoretical model, pitting the determinants against intervention options revealed by the findings of this and previous studies.
CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1: Introduction

This chapter begins with a discussion of the demographic information of study participants. The findings of this study on: the patterns of repetition and dropout, contributors to wastage, the impact of wastage and the measures for preventing wastage, are then presented and discussed in the sections that follow. Finally, a model for preventing the wastage of learners with disabilities in Kenya is proposed.

4.2: Demographic Information of Study Participants

The participants for this study were: primary school learners with disabilities and their parents, primary school teachers catering for learners with disabilities, former learners of special schools or units/integrated programmes for learners with disabilities, and primary school dropouts with disabilities and their parents. Relevant characteristics of these study participants are outlined below.

4.2.1: Characteristics of interviewed Parents of repeaters and Dropouts with Disabilities

Six parents of repeaters (67% female and 33% male) were interviewed. Three of these (50%) were parents of repeaters with hearing impairments, two (33%) were parents of repeaters with visual impairments, and one (17%) was a parent of a learner with a physical impairment. In addition, a female parent of two dropouts with visual impairments, and a male guardian of a dropout with a physical impairment were interviewed.
4.2.2: Characteristics of Learners and Dropouts with Disabilities

Characteristics of participants in Focus Group Discussions, repeaters and dropouts are discussed in this section.

Table 4.1: Characteristics of FGD participants (n=54)

<table>
<thead>
<tr>
<th>Disability Category</th>
<th>FGDs Conducted</th>
<th>FGD participants</th>
<th></th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>VI</td>
<td>3</td>
<td>12</td>
<td>6</td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>HI</td>
<td>4</td>
<td>12</td>
<td>12</td>
<td>24</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>30</td>
<td>24</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

As table 4.1 demonstrates, a total of fifty-four learners with visual, hearing and physical impairments in standard six, seven and eight participated in Focus Group Discussions. There were twenty-four learners with hearing impairments (50% male 50% female), eighteen learners with visual impairments (67% male 33% female), and twelve learners with physical impairments (50% male 50% female). More male than female learners with visual impairments participated in Focus Group Discussions because in the integrated programme for learners with visual impairments only the Focus Group Discussion for boys was conducted; girls with visual impairments at the institution could not constitute a focus group. All the learners in the Focus Group Discussions were in their late teenage years.
Table 4.2: Characteristics of Interviewed Repeaters (n=15)

<table>
<thead>
<tr>
<th>Type of impairment</th>
<th>Sex</th>
<th>Total</th>
<th>No of Times Repeated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>HI</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>VI</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>VI</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

As table 4.2 shows, fifteen repeaters (67% male 33% female) were interviewed. There were six repeaters with hearing impairments (40%), six repeaters with visual impairments (40%), and three repeaters with physical impairments (20%). The table further shows that a female repeater with a hearing impairment, and a male repeater with a visual impairment repeated twice, while all the others repeated once.
As figure 4.1 demonstrates, four dropouts (75% male 25% female) were interviewed. Three dropouts (75%) had visual impairments and one dropout (25%) had a physical impairment.

### 4.2.3: Characteristics of interviewed Teachers of Learners with Disabilities

**Table 4.3: Interviewed Teachers Training in SNE (n=20)**

<table>
<thead>
<tr>
<th>SNE Training</th>
<th>No of Teachers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Certificate</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Non</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.3 shows that twenty teachers (50% male 50% female) were interviewed. The table further shows that two teachers (10%) had Bachelor’s degrees, five teachers (25%)
diplomas, and two teachers (10%) certificates in Special Needs Education. Eleven teachers (55%) had no training in Special Needs Education.

Table 4.4: Interviewed Teachers for Different Disability Categories (n=20)

<table>
<thead>
<tr>
<th>Disability Category</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>VI</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>PI</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.4 depicts the learners with disabilities who were taught by the interviewed teachers. According to this table, eight teachers (40%) taught learners with hearing impairments, six teachers (30%) taught learners with visual impairments, and six teachers (30%) taught learners with physical impairments.

Table 4.5: Post Training Teaching Experience of interviewed Teachers (n=20)

<table>
<thead>
<tr>
<th>Experience</th>
<th>Sex</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 20yrs</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>16-20yrs</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>11-15yrs</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>6-10yrs</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>1-5 yrs.</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4.5 shows the interviewed teachers’ post teacher training teaching experience. As is clear from the table, five teachers (25%) had more than twenty years’ experience in teaching learners with disabilities, five teachers (25%) had between sixteen and twenty years’ experience in teaching learners with disabilities, four teachers (20%) had between eleven and fifteen years’ experience in teaching learners with disabilities, three teachers (15%) had between six and ten years’ experience in teaching learners with disabilities, and three teachers (15%) had between one and five years’ experience in teaching learners with disabilities.

4.2.4: Characteristics of Interviewed Former Learners of Special Schools and Units/Integrated Programmes.

Table 4.6: Characteristics of interviewed former learners (n=6)

<table>
<thead>
<tr>
<th>Disability type</th>
<th>sex</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>HI</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

As table 4.6 demonstrates, six former learners of special schools or units/integrated programmes (83% male 17% female) were interviewed. Of these, four (67%) had hearing impairments and 2 (33%) had physical impairments. These participants had different levels of educational attainment. A male participant with a hearing impairment had completed primary school, one male with a hearing impairment and another with a
physical impairment had completed secondary school, and a female with a hearing impairment, a male with a hearing impairment and a male with a physical impairment had completed tertiary education courses.

4.3 Patterns of Grade Repetition and Dropout

Objective 1 of this study was to establish patterns of grade repetition and dropout of learners with disabilities from primary school. These patterns were to be determined through analysis and interpretation of both quantitative and qualitative data. The quantitative data consisted of school attendance registers for classes’ five to eight for four consecutive years for each school. The qualitative data consisted of information on wastage patterns gathered through interviews and Focus Group Discussions with study participants.

The quantitative data for this study suggests certain patterns of grade repetition and dropout, some of which are supported by interview data. These wastage patterns are discussed below.
4.3.1 Patterns of Grade Repetition

Table 4.7 School Register Analysis of Repeaters (n=19)

<table>
<thead>
<tr>
<th>Disability Type</th>
<th>Class 5</th>
<th>Class 6</th>
<th>Class 7</th>
<th>Class 8</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>VI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>PI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>HI</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.7 shows that nineteen learners (68% male 32% female) repeated classes. According to the table, eight learners (75% male 25% female) repeated class seven. Of these, one (13%) had a visual impairment, four (50%) had physical impairments and three (37%) had hearing impairments. The table also shows that eleven learners (64% male 36% female) repeated class eight. Of these, two learners (18%) had physical impairments and nine learners (82%) had hearing impairments.

One pattern that emerges from both the quantitative and qualitative data (tables 4.7 and 4.3 respectively) is that repetition is practiced in special schools and special units or integrated programmes for learners with hearing, visual and physical impairments. But the number of repeaters seems to be low relative to the class size. For instance, analysis of school attendance registers indicated that from a group of a hundred learners with hearing, visual and/or physical impairments in class seven, eight learners (8%) repeated. Similarly, from a group of ninety learners with physical, hearing and/or visual impairments in class eight, eleven learners (12%) repeated. This pattern is supported by
interview data. Study participants reported that repetition of learners with disabilities is not frequent in their schools. This was stated by two repeaters (13%), eight teachers (40%), and participants in three Focus Group Discussions (33%). The following quotations illustrate the participants’ perception that repetition is not frequent. “It’s not frequent because it’s either one or two out of ten.” (Teacher integrated HI, 29th July 2008). “Kurudia madarasa, eeh, lakini si wengi.” (“Repeating, yes, but it’s not many people.”) (Repeater integrated PI, 1st August 2008).

Another pattern that emerges from both the quantitative and qualitative data is that repetition affects more boys than girls. An analysis of school attendance registers indicated that six boys and two girls repeated class seven. Similarly, seven boys and four girls repeated class eight. Some of the qualitative data affirms this pattern. Ten of the interviewed repeaters (67%) were boys and five (33%) were girls.

The quantitative data reveals a third pattern. It demonstrates that repetition affects learners with hearing impairments more than the other two categories of impairments studied. Of the nineteen learners with hearing, visual and/or physical impairments who repeated classes seven and eight, twelve (63%) had hearing impairments, six (32%) had physical impairments, and one (5%) had a visual impairment. This pattern is not affirmed by qualitative data, since the interviewed participants could not compare repetition across disability categories.
### 4.3.2 Patterns of Dropout

Table 4.8: School Register Analysis of Dropouts (n=20)

<table>
<thead>
<tr>
<th>Disability Type</th>
<th>Class 5</th>
<th>Class 6</th>
<th>Class 7</th>
<th>Class 8</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>VI</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PI</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>HI</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.8 shows that twenty learners (55% male 45% female) dropped out of school. The table further shows that four learners (20%) dropped out in class five. Of these, three (75%) had hearing impairments and one (25%) had a visual impairment. Nine learners (45%) dropped out in class six. Of these, one (11%) had a visual impairment, one (11%) had a physical impairment and seven (88%) had hearing impairments. Six learners (30%) dropped out in class seven. Of these, two (33%) had physical impairments and four (67%) had hearing impairments. One learner with a hearing impairment (5%) dropped out in class eight.

The patterns of dropout that emerge from the quantitative and qualitative data are the same as those for repetition. Like repetition, the dropout of learners with disabilities from primary school does not seem to be frequent. For instance, analysis of quantitative data indicated that from a group of ninety learners with visual, physical and/or hearing impairments who were in class five, four were dropouts (4%). Similarly, from a group of ninety learners with physical, hearing and/or visual impairments who were in class six...
nine learners were dropouts (10%). This pattern is affirmed by qualitative data. Study participants stated that dropout was not frequent in their schools. This was reported by eight teachers (40%) and participants in four Focus Group Discussions (44%). “No it isn’t frequent, apart from that one case only.” (Teacher, integrated PI, 1st August 2008). “Very few cases, very few cases.” (Teacher, special HI, 27th October 2008).

Another pattern that emerges from this data is that as with repetition, dropout affects more boys than girls. Analysis of the school registers indicates that of the twenty dropouts from classes five, six, seven and eight, eleven (55%) were boys and nine (45%) were girls. Since the number of dropouts interviewed was small, this pattern is not affirmed by interview data.

The quantitative data also reveals that dropout rates differ across disability type. Analysis of the school registers indicates that of the twenty dropouts from class five, six, seven and eight, fifteen (75%) had hearing impairments, three (15%) had physical impairments and two (10%) had visual impairments. Since interviewed participants could not compare dropout rates across disability type, this pattern is not affirmed by interview data.

4.4 Educational Wastage and its Contributors

Objective 2 of this study sought to investigate the factors that cause primary school wastage of learners with disabilities. These factors were to be identified through the analysis and interpretation of qualitative data.
Consistent with reviewed literature, the findings of this study attribute wastage to three groups of factors: economic, socio-cultural and other factors, which are neither economic nor socio-cultural. This section presents the findings on each of these groups of factors.

4.4.1 Economic Factors and Wastage

Table 4.9: Economic Factors and Wastage

<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th>Former learners</th>
<th>Repeaters</th>
<th>FGD participants</th>
<th>Drop outs</th>
<th>Parents of drop outs</th>
<th>Parents of learners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Respondents</td>
<td>%</td>
<td>Total Respondents</td>
<td>%</td>
<td>Total Respondents</td>
<td>%</td>
<td>Total Respondents</td>
</tr>
<tr>
<td>Child Labour</td>
<td>20</td>
<td>3</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>54</td>
<td>6</td>
</tr>
<tr>
<td>Schooling Costs</td>
<td>20</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>33</td>
<td>54</td>
<td>18</td>
</tr>
</tbody>
</table>

As table 4.9 shows, two economic factors brought about wastage. These are child labor and costs of schooling. Child labour caused dropout. As shown in table 4.9, this influence of child labour on the dropout of learners with disabilities was reported by three teachers (15%) and participants in one Focus Group Discussion (11%). Participants reported that child labour particularly affected older boys from economically deprived families, who did not enjoy learning with younger children, and who thought they needed to go out and find work to supplement family income, rather than be in school. The need to earn became stronger when it was coupled with the influence of peers or adults who worked
for pay. These learners with disabilities are said to have eventually dropped out of school to engage in small-scale business, or paid farm or livestock rearing work. In this study, child labour leads to the drop out of learners with hearing impairments.

The following quotation illustrates the influence of child labour on dropout.

> like there is one who was brought just the other day, this term, I think he is now a month old here… and he had a job looking after goats, He is here but he says “when I close school I’ll go back to my old job.” You see, he is big, he thinks of money… And I can’t stop him.

(Teacher integrated HI, 29th July 2008).

The influence of child labour on the dropout of learners with disabilities is reported by only two groups of participants in this study. This suggests that child labour is not a major contributor of dropout for learners with disabilities. This is probably because of the ignorance of many people in society about the capabilities of people with disabilities. Many learners with disabilities may not be recruited as child labourers because many people believe that they are not fit or capable of performing the relevant work. The fact that child labour seems to be a minor cause of the dropout of learners with disabilities also suggests that wastage, particularly dropout, may have worse consequences for learners with disabilities relative to their non-disabled counterparts. This is because learners with disabilities may not be engaging in any productive work when they are not in school.

Reviewed literature does not identify child labour as a contributor to the wastage of learners with disabilities. However, the influence of child labour on the dropout of
learners with disabilities demonstrated in this study is similar to that reported in previous studies for learners without disabilities (GOK & UNICEF, 2010; MOEST, 1994; Okungu, 2004; Ruto et al. 2010; UNESCO, 2011). Previous studies in Kenya show that many learners begin engaging in child labour during school holidays; they may then return to school for a short period of time before dropping out, or they may never return to school. The work they engage in often depends on the economic activities of a particular area of the country. The main activities documented in the literature are those related to agriculture, livestock rearing, fishing, tourism, domestic work for girls, child commercial sex work and serving as middlemen in the sale of drugs (GOK & UNICEF, 2010; MOEST, 1994; Okungu, 2004; Ruto et al. 2010). But while previous studies show that child labour leads to the dropout of both boys and girls without disabilities, this study demonstrates that child labour causes the dropout of only boys with disabilities, particularly boys with hearing impairments. In addition, though previous studies demonstrate that boys and girls without disabilities engage in various types of child labour, participants in this study reported that boys with disabilities engage in only three types of child labour, farm work, livestock rearing and small-scale businesses.

The other economic factor which was identified by participants in this study as a cause of wastage is costs of schooling. These are school-related expenses, other than tuition fees, incurred by parents of learners (UNESCO, 2010). As table 4.9 demonstrates, all groups of study participants attributed wastage to these costs of schooling. The table shows that the impact of schooling costs on the wastage of learners with disabilities was reported by participants in three focus group discussions (33%), and by nine teachers (45%), two
repeaters (13%), two former learners (33%), one dropout (25%), three parents of repeaters (50%), and a parent of two dropouts (50%). Costs of schooling led to wastage because they competed with basic family needs for meager family resources. Since basic family needs like food have to be given priority, these schooling costs are often not met. As a result, relationships between schools and learners’ families are strained. These strained relationships may then lead to wastage.

Three costs of schooling were identified in this study: boarding fees, transport costs, and lack of personal items. Participants informed the researcher that due to the Free Primary Education Programme, there are no tuition fees; but learners in boarding schools are charged boarding fees. Lack of boarding fees contributed to frequent absenteeism, repetition and dropout:

Unajua mimi nilienda nikakaa nyumbani ndio nitarudi, kulingana na kule kukosa karo ile ya kulipa shulen… ndio babangu wakaenda wakanituliza nyumbani kiasi halafu sasa ameniregesha… ndio nilipokuja ikabidi nirudie class 5. (You know I went and stayed at home for a while then I came back. Because of lack of fees, my father made me stay home for a while then he brought me back. So when I came back I had to repeat class five).

(Repeater, special VI, 31st July 2008).

Nikienda hapo wananipatia barua, wanataka elfu mbili na mia tano, elfu tatu… Mi naona afadhali waalimu wengine waafuwe kabisa pale… Kama mutu huyu

(When I go there they give me a document, they want two thousand five hundred, three thousand. I think some teachers there should be sacked. If this person says “the child should go home until he brings money.” Where will the child get the money? If you get the money soon, the child will go back to school and continue learning. If you don’t, if there isn’t even a shilling, won’t the child just stay at home? This is what I could no longer stand).

(Parent of two dropouts, 28th October 2008).

Transport costs led to repetition:

anaweza kosa nauli asije for term nzima hivi. Term two kwa bahati nzuri apate nauli… Kama kwa mfano aliachia class five si itabidi tu aje aingie hapo class five. (He/she might lack money for transport and not come for a whole term. Term two by good luck he/she gets money for transport… If for example, he/she left school when he/she was in class five, he/she will just come back to class five).

(FGD participants, special VI, 17th July 2008).

Lack of personal items caused dropout:

Labda nyumbani kwao hawajiwezi, vitu ambavyo yaani anastahili atumie [shuleni] havipati vya kutosha, sasa hapo unapata vile vitu vimeisha na hujui mtu yeyote hapa [shuleni], sasa hapo huwezi kusaidika. Sasa hiyo pia huwa yamfanya mtu ile hamu ya kusoma iondoke, Hivyo pia huwa vyachangia mpaka mtu
akaacha shule manake huwa yuwaona yuwateseka peke yake. (Maybe at home they are poor, and he/she has inadequate personal items to use [in school]. when you exhaust the personal items and you don’t know anyone [in school] you can’t get help. That makes a person lose interest in learning. That also contributes to someone dropping out of school because he/she feels that he/she is suffering alone).

(Repeater, integrated VI, 22\textsuperscript{nd} July 2008).

The findings of this study therefore demonstrate that costs of schooling lead to both repetition and dropout of learners with disabilities. The influence of the costs of schooling on the dropout of learners with disabilities is consistent with previous research on the factors influencing wastage of learners with and without disabilities (National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; Ruto et al. 2010; UNESCO, 2010). The costs of schooling have been associated with the non-enrollment and dropout of children without disabilities and the dropout of learners with disabilities from primary school (National Coordinating Agency for Population and Development & Kenya National Bureau of Statistics, 2008; Ruto et al. 2010; UNESCO, 2010). Ruto et al. (2010) established that schooling costs are a major cause of primary and secondary school dropout of learners without disabilities in Kenya. Furthermore, in a national survey of persons with disabilities in Kenya, the National Coordinating Agency for Population and Development and the Kenya National Bureau of Statistics (2008) report that 39\% of persons with disabilities who had dropped out of primary and secondary school did so because they could not meet the costs of schooling.
Given that only a small percentage of persons with disabilities are reported to have attended secondary school (National Coordinating Agency for Population and Development and Kenya National Bureau of Statistics, 2008), many of these school dropouts are likely to be primary school dropouts. But the influence of schooling costs on the repetition of learners with disabilities demonstrated by the findings of this study was not documented in the reviewed literature.

Thus, the findings of this study demonstrate that two economic factors, child labour and costs of schooling lead to wastage. The fact that participants in this study attribute wastage of learners with disabilities to only two economic factors is surprising. This is because previous research has established that many learners with disabilities come from poor families (Commission of Inquiry, 1999; Mont, 2005; Yeo, 2001). Furthermore, the researcher’s few visits to learners’ homes to interview parents of repeaters and dropouts affirm that some of these families are in dire economic circumstances. The limited availability of dropouts with disabilities, and the inability of many repeaters and FGD participants to open up more about the factors associated with wastage, may perhaps offer part of the explanation for these surprising findings.
4.4.2 Socio-cultural Factors and Wastage

Table 4.10: Socio-cultural factors and wastage

<table>
<thead>
<tr>
<th>Factor</th>
<th>Teachers</th>
<th>Former learners</th>
<th>Repeaters</th>
<th>FGD participants</th>
<th>Drop outs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Respondents (%)</td>
<td>Total</td>
<td>Respondents (%)</td>
<td>Total</td>
</tr>
<tr>
<td>Teenage Pregnancy</td>
<td>20</td>
<td>3 15</td>
<td>6 0 0</td>
<td>15 0 0</td>
<td>54 12 22</td>
</tr>
<tr>
<td>Preference for the Education of Children without Disabilities</td>
<td>20</td>
<td>4 20</td>
<td>6 1 16</td>
<td>15 0 0</td>
<td>54 0 0</td>
</tr>
<tr>
<td>Parents Laxity</td>
<td>20</td>
<td>8 40</td>
<td>6 0 0</td>
<td>15 0 0</td>
<td>54 0 0</td>
</tr>
<tr>
<td>Overage Enrolment</td>
<td>20</td>
<td>4 20</td>
<td>6 0 0</td>
<td>15 1 6</td>
<td>54 0 0</td>
</tr>
<tr>
<td>Curriculum Challenges</td>
<td>20</td>
<td>11 55</td>
<td>6 1 16</td>
<td>15 0 0</td>
<td>54 0 0</td>
</tr>
<tr>
<td>Poor Pedagogical Practices</td>
<td>20</td>
<td>5 25</td>
<td>6 3 50</td>
<td>15 2 13</td>
<td>54 12 22</td>
</tr>
</tbody>
</table>

Table 4.10 demonstrates that six socio-cultural factors are associated with wastage in this study. These are: teenage pregnancy, parents’ laxity regarding the education of children with disabilities, overage enrollment, preference for the education of children without disabilities over those with disabilities, curriculum challenges and poor pedagogical practices.

Teenage pregnancy causes dropout. As depicted in table 4.10, this influence of teenage pregnancy on dropout was reported by participants in two Focus Group Discussions (22%) and by three teachers (15%). The following quotations illustrate the influence of teenage pregnancy on the dropout of children with disabilities:
“Some girls get pregnant and they leave, they go home.” (FGD participants, special HI, 21\textsuperscript{st} July 2008).

For the girls, pregnancy… we have had two cases where they have returned, but some feel “I can even stay at home.”

(Teacher, special HI, 24\textsuperscript{th} July 2008).

Only 15\% of teachers and 22\% of FGD participants in this study attribute the dropout of learners with disabilities to teenage pregnancy. But previous studies and recent media reports suggest that teenage pregnancy has a greater impact on the dropout of learners with disabilities than the participants in this study were willing to admit. Previous research shows that teenage pregnancy is quite common among learners without disabilities in many parts of Kenya, including the Kenyan coast, and that it is a major cause of dropout of learners without disabilities from primary and secondary schools (Okungu, 2004; Ruto et al. 2010; Wa Mahiu & Njau, 1994). For example, the study by Ruto et al. (2010) reveals that Teenage pregnancy is quite common among primary and secondary school learners in Kwale County; Kinango district had 32 reported cases of teenage pregnancy in only one term, and most of the visited schools in Kwale district had cases of teenage pregnancy. Ruto et al. (2010) report that teenage pregnancy is a major cause of dropout for girls in Kwale County. These study findings are supported by recent media reports. A recent media report (NTV, August 25\textsuperscript{th} 2013) depicted how rampant teenage pregnancy is throughout the country and how it leads to the dropout of learners from primary school. At the Kenyan coast, head teachers and education officers
associated the rampant teenage pregnancy to child marriage and dropout (NTV, August 25\textsuperscript{th} 2013).

If a substantial number of learners without disabilities at the Kenyan Coast are victims of teenage pregnancy and drop out of primary school because of it, as the study and media report discussed above suggest, learners with disabilities are likely to have the same experiences. This is certainly true for learners with visual impairments. As a former learner at schools for the blind, the researcher knows that a substantial number of learners with visual impairments in these schools engage in premarital sex, and that some of these sexual encounters result in teenage pregnancy and dropout. The situation may be the same in other special schools and units/integrated programmes for learners with disabilities.

The fact that participants in this study seemed not to be very forthcoming about the influence of teenage pregnancy on the dropout of learners with disabilities is a serious issue. This is because it lowers the magnitude of the problem of teenage pregnancy among learners with disabilities and thereby its influence on their dropout from school. When the problem of teenage pregnancy and its influence on the dropout of learners with disabilities is minimized, this problem is not likely to receive the attention it deserves from government and other stakeholders, and reducing the dropout resulting from it becomes difficult.
Although reviewed literature does not document the contribution of teenage pregnancy on the dropout of girls with disabilities, the findings of this study are consistent with the findings of previous studies regarding teenage pregnancy and dropout of girls without disabilities (Okungu, 2004; Ruto et al. 2010; Wa Mahiu & Njau, 1994). Okungu (2004) reports that teenagers who become pregnant drop out of school partly due to the financial constraints that accrue from having a child. But often they are forced to drop out by fathers who fear the cultural sanctions which result from premarital sex and teenage pregnancy. Furthermore, Okungu (2004) and Ruto et al. (2010) report that the major cause of dropout for teenagers who become pregnant is the social stigma and humiliation which they believe they will experience, or which they actually experience when they resume school.

Another socio-cultural factor associated with wastage is preference for the education of children without disabilities over those with disabilities. Preference for the education of children without disabilities leads to the dropout of children with disabilities. As table 4.10 demonstrates, this influence of the preference for the education of children without disabilities on the dropout of children with disabilities was reported by four teachers (20%) and one former learner (16%). Participants reported that parents prefer to educate children without disabilities over those with disabilities because of expected future earnings for the family. Many parents contend that unlike their siblings with disabilities, children without disabilities will attain educational and occupational success and thereby benefit them monetarily in the future. Consequently, parents prioritize the education of children without disabilities, and when the family’s economic resources are limited, the
education of children with disabilities is abandoned. Preference for the education of children without disabilities may lead to the dropout of children with disabilities from all economic backgrounds. But study participants reported that this factor is particularly influential in the dropout of children with disabilities from poor families.

The following quotations illustrate the impact of the preference for the education of children without disabilities on the dropout of children with disabilities.

He is like “I can’t afford, I have other children,” you know they talk of the other normal children and they find the deaf one to be a bother at home, like he is of no use. They pay school fees for the one who is going to maybe a high school somewhere and leave the deaf because they say they will never help them.

(Teacher integrated HI, 29th July 2008).

“The issue is their parents themselves. They don’t see the importance of educating a disabled child; you are being given last priority when it comes to the budget.”

(Former learner with PI, 9th January 2009).

It is surprising that the contribution of the preference for the education of children without disabilities on the dropout of children with disabilities was not reported by more participants in this study, since previous research demonstrates that preference for the education of children without disabilities leads to the wastage of children with disabilities (Commission of Inquiry, 1999; MOEST, 2005a). Parents did not bring up this issue probably because they did not want to reveal this information to the researcher, a stranger and an individual with a disability. The same could be said for learners and dropouts. But
why more teachers and former learners did not attribute wastage of children with disabilities to preference for the education of children without disabilities is puzzling.

The fact that the contribution of the preference for the education of children without disabilities on the wastage of children with disabilities was reported by relatively few participants in this study is serious. This is because, as with the case of the influence of teenage pregnancy on the dropout of girls with disabilities, underreporting of the influence of this factor on the wastage of children with disabilities lowers the magnitude of this problem. When the influence of preference for the education of children without disabilities on the wastage of children with disabilities is minimized, this problem and the wastage that results from it is not likely to receive the attention it deserves from government and other stakeholders in education.

As stated above, this study is consistent with previous research which attributes the wastage of children with disabilities to the preference for the education of children without disabilities (Commission of Inquiry, 1999; MOEST, 2005a). Reviewed literature reveals that over 90% of children with disabilities in Kenya are not in school, and preference for the education of those without disabilities is a major contributor to this high rate of non-enrollment (Commission of Inquiry, 1999; MOEST, 2005a). But while reviewed literature associates preference for the education of children without disabilities with the non-enrollment of children with disabilities, this study associates the preference for the education of children without disabilities with the dropout of children with disabilities.
A related contributor to wastage is parents’ laxity regarding the education of children with disabilities. As shown in table 4.10, this factor was reported by eight teachers (40%). These were teachers of learners in special schools as well as special units and/or integrated programmes. Teachers reported that parents did not care when their children with disabilities came to school after schools open. Parents’ laxity regarding their children’s education led to frequent absenteeism from school and less teacher-learner contact, which caused repetition.

The following quotation illustrates the impact of parents’ laxity regarding the education of children with disabilities on the repetition of these children.

If a child anakaa nyumbani, skuli zinafunguliwa this term anakuja vizuri, next term hatakuja, another term hatakuja. (If a child stays at home, schools open, this term he/she comes to school, next term he/she doesn’t come, another term he/she doesn’t come). How do I take this child to another class? Most of the repeaters we have here, that’s the reason.

(Teacher, special HI, 24th July 2008).

The fact that some of the participants in this study attributed the repetition of children with disabilities to parents’ laxity regarding the education of these children is interesting for two reasons. First, the influence of parents’ laxity regarding the education of children with disabilities on the repetition of these children is interesting because this link is not documented in the reviewed literature on the wastage of learners with and without disabilities. Second, it is interesting because the impact of this factor on wastage was
reported by only one group of study participants, teachers, and the interviewed guardian and parents of learners and dropouts seemed to imply a different view. These parents and guardian contended that educating learners with disabilities was very important, because education is their only channel to future occupational success. A guardian of a dropout with a physical impairment put it this way:

sisimunawambia asome... “wewe usome manake kazi [ya mkono] huwezi, huwezi kushika panga, wala kushika jembe, wala kufanya kazi yoyote [ya mkono] huwezi, sasa utapewa kazi gani wewe? heri hii kalamu ndio kazi ya rahisi, pengine ukipata kibarua cha hiyo kalamu utaweza kujisaidia, je ukiwa hutaki kusoma utafanyaje?” (We are telling him to study, “you need to study because you can’t do any [manual] work, you can’t hold a panga, you can’t hold a jembe, you can’t do any [manual] work. Now what kind of work will you be employed in? Work involving the pen is what you can do. Maybe if you get work involving the use of the pen you’ll be able to support yourself. But if you don’t want to study, what work will you do?”)

(Guardian of a dropout with PI, 29th October 2008).

Furthermore, a parent of a learner with a visual impairment views education as being critical to not only the occupational success of her child, but also her economic and emotional wellbeing.

Mzazi unamkazania mtoto wako aende shule, apende, akatae, lazima mtoto aende shule... Maanake mtu ambaye anaona sio mtu ambaye ni sawasawa na mtu ambaye haoni maanake wewe hata ukisema “mimi nitaacha kusoma” waweza
A guardian and parents, who believe in the critical role of education for the future occupational success of children with disabilities, are not likely to be lax about it. It is possible that these parents and guardian talked about the importance of education for children with disabilities because I was the interviewer and I have a disability. But it is also possible that they genuinely believed that education is critical. These parents and guardian may have been among the few who are sensitized about the value of education for children with disabilities. Alternatively, they may be among the many who believe in the value of education for their children with disabilities, but who have major economic and social challenges which prevent them from committing economic and other resources to their children’s education.
Overage enrollment was also associated with wastage in this study. As demonstrated in table 4.10 above, this contributor to wastage was reported by four teachers (20%) and one repeater (6%). Overage enrollment caused the repetition of younger children and the dropout of older children. Teachers reported that overage enrollment sometimes meant the repetition of younger children with disabilities because they needed to be separated from their older classmates.

In these years... 2004, 2005, 2006, and 2007, intake has been very high. Many children are admitted as from age four or five... and then you find the problem comes when age four is joined with an age ten pupil... Now in that case, these ones who are overgrown, over ten, fifteen they have to be moved to the next class, these small ones have to remain behind for another year.

(Teacher, special HI, 24th July 2008).

With regard to the dropout of older children with disabilities, Participants reported that older children were often not happy in school because they were ashamed about learning with younger children. Furthermore, they reported that this feeling of unhappiness was worsened by a history of failure and repetition. Eventually, when they could no longer endure their situation in school, they dropped out.

Wengine wanakuja shule wakiwa ten years. (Some start school when they are ten years). By the time they are in class eight, they are over twenty. The bigger boys and girls, especially wale ambao pia who are not performing, anakuwa wa mwisho, wa mwisho, wa mwisho, term zikisonga wa mwisho... (The bigger boys
and girls, especially those who are also not performing, he/she is ranked last in class, he/she is last, as the school terms progress, he/she is the last), So it reaches that time wanaona “aa mi basi hata sishiki kitu [shuleni].” (So it reaches that time when they conclude that “I’m not grasping anything in school”). Those are the kinds of dropouts we have.

(Teacher, special PI, 16th July 2008).

Previous studies in Kenya have reported a high rate of overage enrollment of children with and without disabilities (Commission of Inquiry, 1999; Irvin, 2009). But the influence of overage enrollment on the wastage of children with and without disabilities is not documented in reviewed literature on Kenya. However, these findings are consistent with previous studies on the wastage of children without disabilities in other countries (Moyi, 2010; UNESCO, 2010). Overage enrollment is particularly serious in Sub-Saharan Africa (UNESCO, 2010). In 2007, for example, half of all countries in Sub-Saharan Africa had 50% or more children entering primary school later than the official age (UNESCO, 2010). According to Moyi (2010), Malawi is a case in point. Moyi (2010), reports that a substantial number of children in Malawi enter primary school two or more years later than the official age of six years, and this sometimes leads to primary school dropout. According to Moyi (2010), 18% of 10-14 year-olds who entered school late dropped out of primary school compared to only 7% of those who enrolled at the official age of six years. Thus, previous research shows that overage enrollment leads to the dropout of children without disabilities. By contrast, this study demonstrates that
overage enrollment leads to not only the dropout of children with disabilities, but also to the repetition of these children.

Challenges with the school curriculum were also associated with wastage in this study. As table 4.10 shows, the fact that curriculum challenges lead to wastage was reported by eleven teachers (55%) and a former learner of a special school (16%). Teachers of all the three categories of learners with disabilities focused on in this study said that curriculum challenges cause wastage. Two curriculum challenges were raised: time constraints in syllabus coverage, and curricula which could not accommodate learners with multiple disabilities, including intellectual impairments.

Teachers reported that given the limitations of particular disabilities, some curricula content required more than the allocated teaching time in the syllabus. Teachers said that learners with physical impairments need more time to carry out practical tasks in class; learners with hearing impairments require more time to learn abstract concepts which cannot be visualized, like some concepts in religion; and learners with visual impairments require more time to learn concepts which are visual in nature, like some concepts in mathematics.

I can say covering the syllabus is a problem, that’s a major problem. The children with physical disabilities are a bit slow; you cannot take them as fast as the regular children. So to cover the syllabus becomes a problem.

(Teacher, special PI, 16th July 2008).
In relation to the curriculum bias for average cognitive ability, Teachers reported that special schools and special units or integrated programmes had a substantial number of learners with multiple disabilities, including intellectual impairments. They further reported that learners who have intellectual impairments in addition to other disabilities require more time to learn most of the curricula content, and that even with more time, many concepts are not learnt.

Curriculum challenges were associated with repetition. This is because when learners’ disabilities limit the learning of certain concepts, some learners may not understand them, or they may understand them partially. Concepts which are not fully understood, may then contribute to low performance and thereby repetition.

The following quotation illustrates the influence of curriculum challenges on repetition.

There are some who have other handicaps, who have more than the deafness. These ones we find that maybe getting one concept may be a bit slow, slower than normal. You cannot just rush that child to other classes. So these are the ones whom we tend to pull back so that they go slowly because with the nature of their mental capacities, it is not possible to push them from one class to the next.

(Teacher, special HI, 24th July 2008).

Although the findings of this study do not associate curriculum challenges with dropout, the impact of curriculum challenges on dropout is implied. As I will discuss in the next section on the impact of wastage, one effect of repetition is dropout, especially if a
learner has a history of failure and repetition. On this basis, it can be argued that curriculum challenges cause both repetition and dropout of children with disabilities, since repetition may lead to dropout. The contribution of curriculum challenges on the repetition and dropout of children with disabilities is not documented in reviewed literature.

Another factor associated with wastage in this study is poor pedagogical practices. As demonstrated in table 4.10, the influence of poor pedagogical practices on wastage was reported by participants in two Focus Group Discussions (22%) and by one dropout (25%), five teachers (25%), three former learners (50%), and two repeaters (13%). Therefore, most groups of participants in this study believed that poor pedagogical practices cause wastage. The criticisms of teaching reported by these participants were of three kinds: limited competence to cater for learners’ individual needs, the failure of teachers to attend all their classes, and teachers’ negative attitude.

Participants reported that some teachers had limited competence in assessing and addressing learners’ individual needs. A former learner with a physical impairment puts it this way:

Some of the teachers they are not educated as to teach these kids, like for example, there is mathematics… where instead of giving you five examples ama seven hivi, I give you two examples. And yet the homework he or she is going to give you, you will need all these formulas there… So how will you go about it?

(Former learner with PI, 9th January 2009).
A teacher puts it even more clearly.

Like there is a low vision boy... That boy cannot really read and copy notes because he has to use a lens, and during the day the eyes have a problem. So once the teachers expect him to read, copy notes and take exams like a normal child, he cannot.

(Teacher, integrated PI, 1\textsuperscript{st} August 2008).

Beside limited competence in assessing and addressing learners’ individual needs, participants reported that teachers failed to attend all their classes.

“Our teachers home home home. Half of them here half of them they go.”

(FGD participants, special HI, 27\textsuperscript{th} October 2008).

“Teachers are not teaching, they teach up to lunch time.”

(Repeater, special HI, 30\textsuperscript{th} October 2008).

Participants reported that teachers’ negative attitude about their work contributed to their ineffectiveness in the classroom.

(Another big problem, we tell some teachers, we have eye sight problems, so when you come in and write notes on the board, write well… You’ll tell him/her again and again, and when he/she feels you are too much, he/she will insult you. One day we told [one teacher], then he/she said “you are now bothering me.” So sometimes when he/she is writing notes on the board you just have to look at him/her till he finishes, for colleagues to copy. Then… you borrow the notes from a colleague who has written well and copy. But… we can’t complete copying in good time because copying from colleagues takes us much time, so we lag behind).

(FGD participants, integrated VI, 22nd July 2008).

The poor pedagogical practices discussed above, limited teacher competence, failure to attend classes and teachers’ negative attitude, were all associated with both repetition and dropout. This is because they restricted learners’ access and/or understanding of curricula content, and thereby contributed to low educational performance.

The following quotations illustrate the link between poor pedagogical practices and repetition and dropout. “Understanding problem, teachers sign language they don’t know, teaching how? Children don’t understand, when exam comes… they fail, they fail, they fail, they repeat.” (Former learner with HI, 7th November 2008).

Walikuwa wameambiwa wanifundishe Braili na watu hawa walikuwa hawataki kunifundisha ndio nikaacha… nilipoingia hapo [shuleni] nilikuwa naandika na print kwanza halafu ndio nikaenda hospitali nikaambiwa wanifundishe braili…
Sasa kama mtu utaingia darasani na wenzako, wenzako waandika wewe umeketi tu mpaka jioni, kila siku. (They were told to teach me Braille but these people didn’t want that’s why I left. When I started learning there [at that school]I was writing print. Then I went to the hospital and I was told that they should teach me Braille. Now if you go to class with colleagues, and the colleagues are writing and you are just sitting there till evening every day).

(Dropout integrated VI, 7th November 2008).

It is worth noting that participants reported poor pedagogical practices in both special schools and special units or integrated programmes. This information is important for three reasons. First, these findings challenge commonly held assumptions about special schools versus special units and/or integrated programmes. Contrary to what we might think, this problem does not only affect special units and integrated programmes, which are working towards competent manpower. Similarly, teachers of special schools are not as “competent” and/or “committed” as they are often assumed to be.

Second, the fact that five teachers (25%) raised this issue is telling. People do not usually portray colleagues in bad light to strangers. The fact that these teachers told the researcher negative things about their colleagues suggest that the problem bothered them and they felt it could not remain unsaid. This fact also suggests that the problem of poor pedagogical practices is more serious than reported here, and its contribution to the wastage of children with disabilities greater.
Third, the fact that poor pedagogical practices were identified in this study as a major contributor to the wastage of learners with disabilities has implications on career education and preparation of learners in high school, and on teacher training, recruitment and evaluation. Study findings revealed that poor pedagogical practices partly resulted from lack of or limited teacher commitment to teaching; a teacher who demonstrates a negative attitude in class and/or fails to attend all his/her classes for no good reason, does so because he/she is either not committed to the teaching profession or his/her commitment is limited. Lack of or limited teacher commitment to the teaching profession may be related to lack of interest in the teaching career. Lack of interest in the teaching career suggests that at least some teachers received little (if any) career education and preparation in high school. Consequently, they made an inappropriate career choice, which is adversely affecting their performance in the classroom.

With regard to the implications of poor pedagogical practices on teacher training and recruitment, the findings of this study demonstrate that a substantial number of teachers have limited competence in addressing the diverse needs of learners with disabilities. Limited competence in addressing the diverse needs of learners with disabilities is related in part to lack of training in Special Needs Education. Information from interviewed teachers shows that eleven of them (55%) have no training in Special Needs Education. This is a very serious issue. It demonstrates that teacher recruitment for special schools or regular schools catering for learners with disabilities does not seem to prioritize teacher competence in Special Needs Education. Any teacher with general teacher certification is considered appropriate for teaching learners with disabilities and thereby recruited.
Limited competence in addressing the diverse needs of learners with disabilities is also related to teacher inability to respond to diversity in the classroom. A substantial number of interviewed teachers, even those trained in special Needs Education, seem to at best have limited training in responding to diversity in the classroom; they have no capacity to alter instructional strategies and assessment methods to suit the unique needs of different learners with disabilities.

In relation to the implications of poor pedagogical practices on teacher evaluation, the findings of this study suggest that teachers’ performance is not evaluated regularly (if it is evaluated at all). A teacher whose performance on-the-job is evaluated regularly would neither fail to attend all of his/her classes for no good reason, nor would he/she demonstrate a negative attitude in class. If teachers are evaluated regularly, then the evaluation is of no consequence to them; the teachers are not held accountable for a negative evaluation.

Previous studies in Kenya demonstrate that poor pedagogical practices contribute to low educational performance (MOEST, 1994; MOEST, 2005a). MOEST (1994) reports three kinds of poor pedagogical practices in Kenya: teacher unpreparedness, the use of wrong teaching methods and teacher absenteeism. Furthermore, MOEST (1994) and MOEST (2005a) report that these poor pedagogical practices lead to low academic performance. But this study’s findings, which demonstrate that poor pedagogical practices lead to both low educational performance and the wastage of children with disabilities, are not documented in reviewed literature.
Thus, several socio-cultural factors were associated with the wastage of children with disabilities in this study. Among these factors, are two in-school contributors which are not documented in reviewed literature.

### 4.4.3 Other Factors and Wastage

Two factors, which are neither economic nor socio-cultural, were associated with the wastage of children with disabilities in this study. These are sickness and school transfers.

#### Table 4.11: Other factors and Wastage

<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th>Former learners</th>
<th>Repeater</th>
<th>FGD participants</th>
<th>Drop outs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Respondents %</td>
<td>Total</td>
<td>Respondents %</td>
<td>Total</td>
</tr>
<tr>
<td>Sickness</td>
<td>20</td>
<td>6 30</td>
<td>6 1 16</td>
<td>15 1 6</td>
<td>54</td>
</tr>
<tr>
<td>School Transfer</td>
<td>20</td>
<td>1 5</td>
<td>6 0 0</td>
<td>15 3 20</td>
<td>54</td>
</tr>
</tbody>
</table>

As shown in table 4.11, the impact of sickness on the wastage of children with disabilities was reported by six teachers (30%), one former learner (16%), one dropout (25%), one repeater (6%), and by participants in one Focus Group Discussion (11%).

Participants reported that sickness caused wastage because sometimes it led to frequent and/or lengthy absenteeism from school, and thereby both repetition and dropout.
Sickness contributed to the wastage of all the three categories of children with disabilities focused on in this study, but it was more influential in the wastage of children with physical impairments.

The following quotations illustrate the link between sickness and the wastage of children with disabilities.

Nimerudia... Nilisoma hapa nikafika darasa la sita, nikashikwa na ugonjwa mwingine design ya kifafa, ukinishika naanguka, nikaanguka naskia maumivu mengi, naumwa na kichwa, nishikwa na homa sana, sasa unakuta kwamba akili yangu ilikuwa haiwezi kukumbuka kitu (I repeated… I was in school here till class six, then I got a disease similar to epilepsy, when it attacks, I fall down, when I fall down, I feel so much pain, I get a headache, I get high fever, so my brain couldn’t retain anything).

(Repeater integrated PI, 1st August 2008).

Pengine huwa ana ugonjwa… ambao hauwezi kusaidika hapa shule, sasa huwa yuapewa nafasi aende nyumbani akaangaliwe mpaka ile siku ambayo atakapopata nafuu ndio arudie. Wengine waja lakini wengine hawaji tena (He/she may have a disease which cannot be dealt with here in school, so he/she is given an opportunity to go home and be treated till he/she gets well, then he/she can come back. Some come back, but others don’t come any more).

(FGD participants, special VI, 17th July 2008).

These findings on the contribution of sickness on the wastage of children with disabilities are consistent with the findings of previous studies on the wastage of children with and
without disabilities (Ruto et al. 2010; Wagner, 1991). Wagner (1991) reports that learners with disabilities in the United States were absent from school due to illness and treatment. Ruto et al. (2010) report similar findings regarding learners without disabilities in Kenya. This frequent absenteeism leads to reduced teacher-learner contact, low academic achievement, repetition and dropout (Ruto et al. 2010; Wagner, 1991).

School transfers were associated with repetition in this study. As depicted in table 4.11, the fact that school transfers cause repetition was reported by three repeaters (20%) and one teacher (5%).

“There other school three come here three again.”

(Repeater, special HI, 25th July 2008).

Nilipokuja huku nilikuwa darasa la sita na nikaja term ya tatu. Nilipokuja… nikanapata mtihani wa huku na wa kule ni tofauti, ndio nika-fail, ndio nika-repeat.

(When I came here I was in class six, and I came during the third term. Then, when I came, we sat for exams, and I found that the exams at this school and the exams at the school I attended before were different. So I failed and then I repeated).

(Repeater, integrated PI, 1st August 2008).

The influence of school transfers on the wastage of children with disabilities is not documented in reviewed literature.
Fig 4.2: Wastage and its contributors

**Contributors**

- **Economic Factors**
  - Costs of schooling
  - Child labor

- **Socio-Cultural factors**
  - Poor Pedagogical Practices
  - Teenage pregnancy
  - Curriculum Challenges
  - Parents’ laxity
  - Parents’ preference for the education of children without disabilities
  - Overage enrolment

**Wastage**

- Repetition and Drop out
- Drop Out
- Repetition and Drop out
- Repetition
- Drop Out
- Repetition and Drop out
- Repetition and Drop out
- Repetition

**Respondents**

- 36 participants across all groups
- 15 participants across 2 groups
- 23 participants across 5 groups
- 15 participants across 2 groups
- 12 participants across 2 groups
- 8 participants across 1 group
- 5 participants across 2 groups
- 5 participants across 2 groups
- 15 participants across 5 groups
- 4 participants across 2 groups
Figure 4.2 summarizes the discussion in this section. The figure depicts all the factors that have been associated with wastage in this study, demonstrating whether they cause repetition, dropout, or both. On the basis of frequency of mention by study participants, the figure further shows the influence of each factor on wastage, from the most influential to the least influential.

4.5 Impact of Wastage

Objective 3 of this study was to establish the impact of wastage on learners and dropouts with disabilities. Findings on the effects of wastage for learners and dropouts with disabilities are presented and discussed below.

4.5.1 Impact of Repetition

Table 4.12: Impact of Repetition

<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th>Former learners</th>
<th>Repeaters</th>
<th>FGD participants</th>
<th>Drop outs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Respondents</td>
<td>%</td>
<td>Total Respondents</td>
<td>%</td>
<td>Total Respondents</td>
</tr>
<tr>
<td>Improvement in Academic Performance</td>
<td>20</td>
<td>8</td>
<td>40</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Decline in Academic Performance</td>
<td>20</td>
<td>6</td>
<td>30</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Negative socio-emotional consequences</td>
<td>20</td>
<td>6</td>
<td>30</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Drop out</td>
<td>20</td>
<td>6</td>
<td>30</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
As is apparent from table 4.12, four major effects of repetition were reported by participants in this study: an improvement in academic performance, a decline in academic performance, negative socio-emotional consequences and dropout from school. A substantial number of participants reported that repetition led to an improvement in academic performance. As table 4.12 shows, this effect of repetition was reported by eight teachers (40%), nine repeaters (60%) and participants in four Focus Group Discussions (44%).

Muhimu ni ile kusaidika kimasomo na kurudia kulinisaidia kuelewa. Ilinisaidia nipate kuelewa yale masomo, so kufikia sasa sina shida sana hivyo. (Benefiting from education is what is important, and repeating helped me to understand. It helped me to understand the content of different school subjects. I don’t have much of a problem now). (Repeater, integrated PI, 1st August 2008).

“It is helping teach, learn mathematics, hard subjects. It helps, they pass.” (FGD participants, special HI, 27th October 2008).

However teachers reported that an improvement in learners’ performance is dependent on two conditions: the learners’ willingness to repeat, and his/her potential to perform better during the repetition year. If the learner had the potential to perform better, and if he/she was willing to repeat, his/her performance improved. “Some of them do well… when you explain to them that ‘when you repeat you’ll do better,’ they just go ahead and do well.” (Teacher, special PI, 16th July 2008). “There are some who excel and come up to better results. Others, they say that, “the insides of the brain are different.” When someone is
down, there is nothing that you can do to lift them up.” (Teacher integrated VI, 23rd July 2008).

Previous studies on the impact of repetition of children without disabilities in other countries have reported that repetition leads to a short-term improvement in academic performance, (Bonvin et al. 2008; Nagaoka & Roderick 2004). For instance, findings of a nationwide Swiss study show that early in the academic year, the academic achievement of learners who repeated second grade improved compared to their new classmates. But this progress begins to decline as the year progresses, and by the end of the third grade, their academic achievement was lower than that of classmates (Bonvin et al. 2008). In Nagaoka and Roderick’s (2004) study in the United States, only 60% of repeaters in the third and sixth grade managed to raise their academic achievement to the required standard by the end of the repetition year. But two years later, the academic achievement of learners who repeated third grade had stagnated, and the academic achievement of learners who had repeated the sixth grade declined (Nagaoka & Roderick, 2004). Thus, the findings of this study are consistent with these previous studies regarding the short-term improvement in academic performance. It would be interesting to investigate whether this improvement in academic performance persists over time or not.

Study participants reported that a decline in academic performance may result if the learner is weak academically and/or if he/she was unwilling to repeat. As table 4.12 shows, this effect was reported by six teachers (30%) and one repeater (6%).
Repetition sometimes impacts negatively on them because I can remember a case where we had a boy who repeated KCPE last year. He did KCPE 2006, and he did very well... but we only got two chances for secondary school. So we thought if we could repeat this boy, we are sure he can get a chance in secondary school. So we repeated this boy, it was a disaster... He could not make it the second time.

(Teacher, special HI, 24th July 2008).

“I’m going down, down, down, down.” (Repeater, special HI, 30th October 2008).

As stated above, reviewed literature documents a decline in academic performance over time (Bonvin et al. 2008; Nagaoka & Roderick 2004). But this decline in performance during the repetition year is not documented in reviewed literature.

A third effect of repetition reported in this study is negative socio-emotional consequences. As table 4.12 demonstrates, this effect was reported by six teachers (30%), one former learner (16%), three repeaters (20%), one dropout (25%), and participants in three Focus Group Discussions (33%). Participants reported that repeaters were often embarrassed about repeating, especially if they were much older than their new classmates. This embarrassment was frequently worsened by ridicule from the new classmates. Additionally, repeaters often felt lonely because their friends have moved on to the next class. These negative socio-emotional consequences then led to loss of motivation to learn and disengagement from school. “The negative part is they are used to their classmates, and when the class moves on to the next class and they are there, it affects them. They don’t have friends, they don’t have age mates.”
(Teacher, special PI, 16\textsuperscript{th} July 2008).

Kuliniathiri kwa sababu sikuwa nakaa na hawa watu… fresh! Wajua hio time ukishikana na… wale watu sio size yako tuseme, wale wanakuona wewe ni mkubwa na wewe unawaona hao ni wadogo, kushikana nao … Ilikuwa ngumu, kwa sababu mpaka uwe waitwa mtu mkubwa… kwa sababu hao wenzako ulisoma nao hao wametoboa na wewe bado uko hapa umerudia… kuenjoiva huwa unaenjoiva mpaka uvunjike moyo. (It affected me because them and I were not getting along. You know if you are together with people who are not your size, they see you as big and you see them as small, getting along with them is hard… because you have to be called big, because the classmates you were with have moved on to the next class and you are still there, you are repeating… you’ll be teased and teased till you become demoralized).

(Repeater, special VI, 31\textsuperscript{st} July 2008).

These findings on the negative socio-emotional consequences of repetition are consistent with those of previous studies on the impact of repetition for learners without disabilities (Okungu, 2004; Penna & Tallerico, 2005). Repeaters in Penna and Tallerico’s (2005) study report that their initial reaction to being asked to repeat a class was frustration with themselves and their schools. These repeaters also felt that the decision to hold them back while their classmates went to the next class was unfair (Penna & Tallerico, 2005). Besides their own emotional reactions to repetition, interviewed repeaters told Penna and Tallerico (2005) that they experienced social stigma from their new classmates and teachers. Okungu (2004) reports similar findings in Kenya.
The final effect of repetition which was reported in this study is dropout. As table 4.12 demonstrates, this effect was reported by six teachers (30%), two former learners (33%), and one dropout (25%). Participants reported that repeaters, particularly those who were unwilling to repeat and/or those who were older, may opt to drop out of primary school due to repetition and its negative socio-emotional consequences. A former learner with a hearing impairment links repetition and dropout in this way: “They learn in school for a long time, again same class, others come they leave them behind, so they lose hope and they ran away.” (7th November 2008).

Indeed, a dropout with a physical impairment stated that repetition was the cause for his dropout from primary school. This dropout said that being asked to repeat class seven made him unhappy. He said that when his friends went to class eight, he felt lonely learning with new classmates. Consequently, he recounts how he pleaded with teachers so they can allow him to go to class eight in vain. When his dialogue with teachers did not yield positive results, this dropout requested his guardian to get him transferred to another school, but this request was also ignored. When he felt that there was nothing else that he could do, the dropout says: “nika-determine ku-escape.” (“I determined to escape”) (Dropout with PI, 29th October 2008). In other words, this dropout decided to drop out of school to escape repetition.

These findings on dropout as an effect of repetition are consistent with previous studies on the effects of repetition for learners with and without disabilities (Okungu, 2004; Palme, 1998; Penna & Tallerico, 2005; Reschly and Christenson, 2006). Palme (1998),
reports that many repeaters in primary schools in Mozambique opted to drop out because repetition made them lose confidence in their academic abilities and dislike school. Furthermore, dropouts interviewed by Okungu (2004) and Penna and Tallerico (2005) all cited repetition as a major reason for dropping out of school. Moreover, Reschly and Christenson (2006) report a statistical association between repetition and dropout for individuals with learning disabilities, emotional and behavior disorders and those without disabilities.

Table 4.13 Ranked effects of repetition

<table>
<thead>
<tr>
<th>Effects</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in Academic Performance</td>
<td>41 participants across 3 groups</td>
</tr>
<tr>
<td>Negative socio-emotional consequences</td>
<td>29 participants across 5 groups</td>
</tr>
<tr>
<td>Drop out</td>
<td>9 participants across 3 groups</td>
</tr>
<tr>
<td>Decline in Academic Performance</td>
<td>7 participants across 2 groups</td>
</tr>
</tbody>
</table>

On the basis of frequency of mention by study participants, table 4.13 ranks the effects of repetition from the most important to the least important.

Thus, the findings of this study concur with research in other countries that repetition of classes, has more negative effects than positive effects; and that, Because of its negative effects on learners, repetition is an inappropriate practice (Penna & Tallerico, 2005). The socio-emotional effects of repetition and the possible decline in academic performance which may result from it, often leads to learners’ disengagement from the learning process and eventually dropping out of school. Because repetition may lead a learner to
drop out of school, it can be argued that it is not only inappropriate, but also unethical. While it may be argued that promoting a learner to the next class before he/she has mastered the knowledge and skills of the previous class is not in the learner’s best interest, neither is repetition of the learner. Effective and non-injurious methods of addressing learners’ individual needs and improving their academic performance have been empirically established (Hardre & Reeve, 2003; Jimerson et al. 2006; Kortering & Braziel, 1999a; 1999b; Penna & Tallerico, 2005; Reschly & Christenson, 2006). These methods need to be urgently implemented in Kenya.

### 4.5.2 Impact of dropout

<table>
<thead>
<tr>
<th>Table 4.14: Impact of Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>Begging</td>
</tr>
<tr>
<td>Sexual abuse and Exploitation</td>
</tr>
<tr>
<td>Unreliable Casual work</td>
</tr>
</tbody>
</table>

As table 4.14 demonstrates, four negative effects of dropout were reported in this study: unemployment, begging, sexual abuse and exploitation and unreliable casual work. The
most important of these effects is unemployment. As is apparent from table 4.14, this effect was reported by two former learners (33%), two repeaters (13%), two dropouts (50%), and participants in four Focus Group Discussions (44%). Unemployment was related to lack of educational qualifications. This information from participants was affirmed by the fact that three of the four interviewed dropouts were unemployed.

Huwa waathirika vibaya maanake hata hataenda popote apate kazi maanake hata certificate yenyewe atakuwa hajapata, itabidi abaki nyumbani tuu na hatajisaidia na lolote. (They are usually affected badly because he/she won’t be employed anywhere because he/she won’t even have a certificate, so he/she will have to stay at home and won’t be able to help himself/herself in any way).

(Repeater, integrated VI, 22\textsuperscript{nd} July 2008).

“Sifanyi kitu nimeketi.” (“I’m not doing anything, I’m just idle”)

(Dropout, 6\textsuperscript{th} November 2008).

These findings are consistent with those of previous studies on the effects of dropout for children with and without disabilities (Blackorby et al. 1991; Penna & Tallerico, 2005; Wagner, 1991). Blackorby et al. (1991) and Wagner (1991) report that dropouts with disabilities have high rates of unemployment. Penna and Tallerico (2005) report similar findings for dropouts without disabilities.

Unemployment often leads to another effect of dropout. Participants reported that many unemployed dropouts resort to begging as a source of self sustenance. As table 4.14 shows, this effect was reported by four teachers (20%) and participants in three Focus
Group Discussions (33%). “When they drop out… and then they don’t get a job to do, some decide to become beggars in the streets! We are not happy when we see them begging yet they passed through our hands.” (Teacher, special VI, 17th July 2008).

“Kama wale watu… ambao huwa wanaomba, kuna wengine ambao waliacha shule ndio wakawa pale wakiomba.” (“Like some of the people who are begging, they dropped out of school and then they started begging”). (FGD participants, special VI, 17th July 2008).

Begging as an effect of dropout for children with disabilities is not documented in reviewed literature.

Another effect of dropout which was reported in this study is sexual abuse and exploitation. Table 4.14 shows that this effect was reported by two teachers (10%) and one repeater (6%). “Some are abused because anyone can come during the day and start doing anything to the child” (Teacher, special PI, 16th July 2008). This effect of dropout for children with disabilities is not documented in reviewed literature.

A fourth impact of dropout reported in this study is unreliable casual work. As table 4.14 demonstrates, this effect was reported by one teacher (5%), two former learners (33%), one dropout (25%), a parent of two dropouts (50%), and participants in three Focus Group Discussions (33%). Participants reported that the dropouts with disabilities receive meager pay or no pay for the casual work. “Nafanya vibarua vya mtaani tu, chochote kitakachotokea.” (“I just do casual jobs here in the neighbourhood, whatever comes up”). (Dropout, 4th November 2008).
“The dropouts, They are misused because the only work they can do is to take care of the cattle, especially this area where people keep herds of cattle. They are paid very low wages and sometimes they are not even paid.” (Teacher, integrated HI, 29th July 2008).

“Some they are there selling sweets there in the streets, because their education is little.” (Former learner with HI, 7th November 2008).

The above impact of dropout is consistent with previous studies on the impact of dropout for dropouts with and without disabilities (Blackorby et al. 1991; Penna & Tallerico, 2005; Mac’leod, 1995; Reschly & Christenson, 2006). Blackorby et al. (1991) and Reschly and Christenson (2006) report that dropouts with disabilities earn less income when employed. Penna and Tallerico (2005) report similar findings for dropouts without disabilities. In addition, the post high school experiences of the high school dropouts interviewed by Mac’leod are revealing. Since they dropped out of high school more than five years earlier, these youth had been either unemployed or engaged in unreliable casual work (Mac’leod, 1995).

### Table 4.15 Ranked effects of Drop out

<table>
<thead>
<tr>
<th>Effects</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>30 participants in 4 groups</td>
</tr>
<tr>
<td>Unreliable Casual work</td>
<td>23 participants in 5 groups</td>
</tr>
<tr>
<td>Begging</td>
<td>22 participants in 2 groups</td>
</tr>
<tr>
<td>Sexual abuse and Exploitation</td>
<td>3 participants in 2 groups</td>
</tr>
</tbody>
</table>
On the basis of frequency of mention by study participants, table 4.15 ranks the effects of dropout from the most important to the least important.

Thus, the findings of this study affirm those of previous studies regarding the negative impact of dropout for dropouts with and without disabilities. By implication, these findings stress the need to address the problem of primary school dropout urgently.

4.6 Prevention of Wastage

Table 4.16: Measures for Preventing Wastage

<table>
<thead>
<tr>
<th>Measure</th>
<th>Teachers</th>
<th>Former learners</th>
<th>Repeaters</th>
<th>FGD participants</th>
<th>Drop outs</th>
<th>Parents of learners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
<td>Provision of Facilities and Teaching Learning Materials</td>
<td>20</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Effective Teaching</td>
<td>20</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Providing Economic Support to Learners</td>
<td>20</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Sensitization of Parents on Children’s Education</td>
<td>20</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Guidance and Counseling</td>
<td>20</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Child Follow up Programmes</td>
<td>20</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>
Participants in this study proposed several measures for preventing repetition and dropout from primary school. These measures are the focus of this section. The information discussed in this section is presented in table 4.16.

One measure for preventing wastage is provision of facilities and teaching and learning materials. This measure was associated with the prevention of repetition. As table 4.16 demonstrates, it was proposed by seven teachers (35%), one repeater (6%), and participants in one Focus Group Discussion (11%). Participants reported that facilities and teaching and learning materials prevent repetition because they facilitate teaching and learning, and thereby the improvement of academic performance. Hearing aids, equipment for the production of Braille materials, and classrooms, were among the facilities and teaching and learning materials mentioned during interviews.

The rule says in a class for the deaf we should have between eight and twelve [learners] maximum… Like I am talking now my standard one has sixteen a double stream, my present class eight has sixteen this should be a double stream, but now it is a single class, it is just like having a hundred children in a normal class. Infrastructure because if I could be handling eight or nine children, my performance as a teacher could be definitely better than when am handling sixteen children.

(Teacher, special HI, 30\textsuperscript{th} October 2008).
Provision of facilities and teaching and learning materials is not documented as a measure for preventing repetition for learners with and without disabilities in reviewed literature.

Another measure for preventing wastage identified by study participants is effective teaching. This measure was deemed useful for preventing both repetition and dropout. As is clear from table 4.16, this measure was identified by three former learners (50%), seven teachers (35%), five repeaters (33%), a parent of a learner (12.5%) and participants in four Focus Group Discussions (44%). Participants reported that effective teaching requires maximum teacher-learner contact. They therefore contended that teachers must attend all their classes, and commit extra time when needed for teaching. Participants further argued that effective teaching involved addressing learners’ individual needs. This may involve providing remedial teaching. Effective teaching was viewed by participants as a means for preventing repetition and dropout because it facilitates learning and improvement of academic performance. “Teachers should teach well.” (FGD participants, special HI, 27th October 2008).

With the deaf it means hard work… you commit yourself wholeheartedly and work with these children all round. On the education side, learning subjects and lessons, it is a lot, but you have to have that commitment to see that this child learns and achieves what he should by the end of his [eight-year] course, if its maths you teach him maths and that’s not only during the maths lesson or that particular lesson for maths or English time or social studies time or creative arts time whatever time, that set time is not enough for this
child, you have always to keep extra time for this child… the best can come out of here, work has to be done, this is a deaf child, special needs child needs special work and commitment

(Teacher, special HI, 24th July 2008).

The above findings on effective teaching as a means of preventing both repetition and dropout are consistent with the findings of previous studies on measures for preventing wastage of learners with and without disabilities (Hardre & Reeve, 2003; Jimerson et al. 2006; Kortering & Braziel, 1999a; 1999b; Penna & Tallerico, 2005; Reschly & Christenson, 2006). Research has established that effective teaching involves, among other things, the use of various instructional techniques to match different learners’ learning pace and styles (Jimerson et al. 2006; Penna & Tallerico, 2005), connecting lessons to learners’ lives (Hardre & Reeve, 2003), addressing learners’ specific learning needs (Kortering & Braziel, 1999a; 1999b; Reschly & Christenson, 2006), regularly assessing and monitoring learners’ academic progress and behaviour and implementing necessary remediation strategies before learners exhibit poor academic performance (Denton, 2001; Jimerson et al. 2006; Reschly & Christenson, 2006), and nurturing learners’ motivation to learn by enabling them to believe in their capabilities (Hardre & Reeve, 2003). Previous studies demonstrate that effective teaching reduces the rates of repetition and dropout from school (Jimerson et al. 2006; Penna & Tallerico, 2005).

Providing economic support to learners was also identified as a measure for preventing wastage in this study. This measure was viewed as a means of preventing dropout. As is apparent from table 4.16, this measure was identified by three teachers (15%), one
dropout (25%), a parent of a learner (12.5%), and participants in one Focus Group Discussion (11%). Participants said that economic support could be in various forms, including: getting sponsors who can cater for learners’ school-related expenses, giving learners’ parents money so they can pay for transport when bringing them to school at the beginning of the term, or the waiving of boarding fees and other costs of schooling for all learners with disabilities or only for learners in very dire circumstances. “If we can get enough funds so that we don’t need the seven thousand five hundred from the parents. Then we would actually make a good follow up.” (Teacher, special PI, 16th July 2008).

“One of the things is to get sponsors, because these sponsors are the ones to sponsor the child and he will make sure that the child goes to school.” (Teacher integrated HI, 29th July 2008).

The provision of economic support to learners was identified as a means of preventing wastage in previous studies (UNESCO, 2010; UNESCO, 2011). But this support only involved abolishing schooling costs for learners with and without disabilities (UNESCO, 2010; UNESCO, 2011).

Another measure for preventing wastage identified in this study is sensitizing parents of children with disabilities on their responsibilities regarding their children’s education, so they can be actively involved in the process. As shown in table 4.16, this measure was identified by three teachers (15%), one former learner (16%), and one repeater (6%). This measure was considered useful in preventing dropout. Participants contended that parents who understand and accept their responsibility in their children’s education will ensure
that they bring the children to school on the day when schools open, as well as support
teachers in other ways to maximize learning. Additionally, participants felt that parents
should be empowered with skills which will enable them to fulfill their responsibilities in
their children’s education. This was considered especially important for parents of
learners with hearing impairments. For learners with hearing impairments, empowering
parents was viewed as a means of preventing teenage pregnancy and dropout.

The irregularity might contribute to the dropout in a way, calling back this parent
so they can be taught, so they can be reminded of their responsibilities… That is
the only way, making this parent to be responsible for this child. Otherwise
without that we may be doing a lot of harm to the child.

(Teacher integrated VI, 23rd July 2008).

The above strategy is not documented in reviewed literature as a means of preventing
dropout of learners with disabilities. But facilitating parents’ involvement in children’s
education was considered useful in preventing the dropout of learners without disabilities
in previous studies (Denton, 2001; Hunt et al. 2002; Jimerson et al. 2006; Marion, 2008).
Involving children’s siblings and out-of-school friends was viewed as equally important
(Marion, 2008). Previous studies demonstrate that learners’ parents, siblings and out-of-
school friends may have a positive or negative influence on the educational process
(Jimerson et al. 2006; Marion, 2008). For instance, Siblings and friends can influence a
learner to stay in school or dropout (Marion, 2008). Some of the dropouts interviewed by
Marion (2008) said that they left school because their older siblings or out-of-school
friends had dropped out. Furthermore, dropouts told Marion (2008) that their parents
encouraged them to drop out of school to help with housework, participate in the family business, take care of younger siblings, and/or to give them companionship.

Guidance and counseling was also identified in this study as a means of preventing dropout. As table 4.16 demonstrates, this measure was identified by six teachers (30%), one repeater (6%), and participants in one Focus Group Discussion (11%). Participants contended that learners with disabilities need guidance and counseling to enable them to understand the value of education in their future lives. Understanding the value of education would enable learners to be more engaged in the learning process and improve their academic performance, and thereby avoid repetition and dropout. Guidance and counseling was also considered useful in preventing teenage pregnancy and the dropout which may result from it.

You know some of these children they think they will not be able to do other work, so if they get guidance and counseling they can be better people in the society, they can be given examples of other people with disabilities who have managed to earn better living when doing other activities, instead of dropping out and staying at home.

(Teacher, integrated VI, 23rd July 2008).

Kila time wawe wanapewa mawazo na waalimu wao. waelezewe ya kuwa “ukisoma kama hivi, utapata mbeleni matokeo yako yawe mazuri. (Every now and then they should be counseled by their teachers. They should be told “if you study, you’ll benefit from education in the future”).

(Repeater integrated PI, 1st August 2008).
Guidance and counseling is not documented in reviewed literature as a measure for preventing the dropout of learners with and without disabilities.

A final strategy identified in this study as a measure for preventing wastage of learners with disabilities is child follow up programmes. Table 4.16 shows that this measure was identified by three teachers (15%) and participants in two Focus Group Discussions (22%). This measure was considered useful in preventing dropout, because it curbed learners’ absenteeism, maximized teacher-learner contact and thereby reduced repetition.

“Shule iwatafute, warudi skuli ili wafaidike [kwa kusoma].” (“The school should look for them, so they can come back to school and benefit [from education]”). (FGD participants, special VI, 17th July 2008).

“We have to give that child a follow up, we go for them. say maybe a month, or two months, Every time we have a dropout we give it a follow up.” (Teacher, special VI, 31st July 2008).

The above findings on child follow up programmes as a measure of preventing the wastage of learners with disabilities are consistent with the findings of previous studies (Kortering & Braziel, 1999b). Research suggests that dropout status is not a permanent condition; a learner can drop out of school, stay home for a while, and then return to complete primary or secondary education (Achola & Pillai, 2000; Blackorby et al. 1991; Kortering & Braziel, 1999b). In their study, Blackorby et al. (1991) compared high school graduates and dropouts with learning disabilities, behaviour disorders and mild mental retardation, in order to determine the factors that led some students to graduate
and others to drop out. Blackorby et al. (1991) report that among the participants in their study, 74% of those who had discontinued formal education before the study, returned to school within a year after they left. Furthermore, 12% of the graduates in Blackorby et al’s (1991) study had discontinued their formal schooling once, 2% twice, and 2% more than twice. Moreover, 64% of the interviewed dropouts with learning disabilities, behaviour disorders and mild mental retardation told Kortering and Braziel (1999b) that they would consider returning to school. These dropouts with disabilities told Kortering and Braziel (1999b) that dropout retrieval programmes are among the things which would prompt them to go back to school.

Table 4.17 Ranked measures for preventing wastage

<table>
<thead>
<tr>
<th>Measure</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Teaching</td>
<td>40 participants in 5 groups</td>
</tr>
<tr>
<td>Child Follow up Programmes</td>
<td>15 participants in 2 groups</td>
</tr>
<tr>
<td>Provision of Facilities and Teaching Learning Materials</td>
<td>14 participants in 3 groups</td>
</tr>
<tr>
<td>Guidance and Counseling</td>
<td>13 participants in 3 groups</td>
</tr>
<tr>
<td>Providing Economic Support to Learners</td>
<td>11 participants in 4 groups</td>
</tr>
<tr>
<td>Sensitization of Parents on Children’s Education</td>
<td>5 participants in 3 groups</td>
</tr>
</tbody>
</table>

On the basis of frequency of mention by study participants, table 4.17 ranks the measures for preventing wastage of learners with disabilities from the most important to the least important.
Thus, several measures have been identified in this study as important for preventing repetition and dropout of learners with disabilities from primary school. However, it is surprising that reducing repetition was not among the identified measures for preventing dropout. This fact is surprising because a substantial number of participants in this study, – six teachers (30%), two former learners (33%), one dropout (25%), - view repetition as being quite influential in a learner’s decision to drop out.

4.7: Proposed model for preventing Wastage of learners with disabilities in Kenya

A model for preventing wastage of learners with disabilities in Kenya is proposed in this section. The model achieves objective 4 of this study. This model is informed by the findings of this study, and global experiences documented in reviewed literature on measures for preventing wastage.
Fig. 4.3 Model for preventing wastage of learners with disabilities in Kenya

- **Parent’s sensitization campaign**
  - Reduces overage enrolment
  - Prevents repetition and drop out

- **Facilitating curriculum differentiation**
  - Reduces preference for the education of children without disabilities
  - Prevents drop out

- **Competent and committed teachers**
  - Reduces poor pedagogical practices
  - Prevents repetition and drop out

- **Provision of facilities and teaching – learning materials**
  - Improves learning and academic performance
  - Prevents repetition and drop out

- **Guidance and counseling**
  - Facilitates addressing of learners’ problems
  - Prevents repetition and drop out

- **Providing economic support to learners**
  - Reduces teenage pregnancy
  - Prevents drop out

- **Reduces parents laxity in Children’s Education**
  - Prevents absenteeism, and Repetition

- **Reduces school absenteeism**
  - Prevents repetition and drop out

- **Reduces child labor**
  - Prevents drop out
As figure 4.3 shows, the proposed model for preventing wastage consists of measures to be implemented at the community and school levels. Two measures can be implemented at the community level: providing economic support to learners and aggressive sensitization campaigns for parents of children with disabilities. Learners with disabilities who come from economically deprived backgrounds should be provided with 100% economic support so their parents do not have to incur schooling costs. Provision of economic support to learners will reduce the frequent absenteeism that often result from schooling costs, maximize teacher-learner contact, and prevent repetition and dropout associated with schooling costs. Providing economic support to learners will also reduce the temptation for child labour and prevent the dropout that results from it.

Aggressive sensitization campaigns for parents of children with disabilities will sensitize parents on the value of educating a child with a disability, and on how parents can support these children’s educational process. These sensitization campaigns will reduce parents’ laxity in the education of their children with disabilities, reduce frequent absenteeism and prevent repetition. Furthermore, these sensitization campaigns will reduce preference for the education of learners without disabilities and prevent the dropout of children with disabilities that results from it. Finally, these sensitization campaigns will decrease overage enrollment, and prevent the repetition and dropout that results from it.

Four measures of the proposed model can be implemented at the school level: the implementation of a curriculum which allows for curriculum differentiation, deployment
of competent and committed teachers, guidance and counseling for learners and the provision of appropriate and adequate facilities and teaching-learning materials. The implementation of a curriculum which allows for curriculum differentiation is critical. Curriculum differentiation involves building in flexibility into a curriculum to enable teachers to change curricula content, methods of instruction and learner assessment procedures to suit individual learners’ needs (Pace & Price, 2005). The implementation of a curriculum which facilitates curriculum differentiation will reduce curriculum challenges, enable teachers to adjust curricula content, instruction and evaluation to suit the individual needs of different learners, maximize learning, improve academic performance and prevent repetition and dropout which results from curriculum challenges.

Competent and committed teachers are essential for the implementation of a differentiated curriculum. The deployment of competent and committed teachers will reduce poor pedagogical practices, and facilitate the development of positive teacher-learner relationships, effective teaching of curricula content, and remedial teaching. In the process, competent and committed teachers will maximize learning, improve academic performance, and make a substantial contribution in preventing repetition and dropout which is associated with poor pedagogical practices.

The effectiveness of competent and committed teachers will be enhanced by the provision of appropriate and adequate facilities and teaching-learning materials. These
will enhance teachers’ ability to teach curricula content, maximize learning, improve academic performance and prevent repetition and dropout.

Guidance and counseling for learners will contribute to the development of positive relationships between learners and teachers. Furthermore, it will enable teachers to identify, and where possible, address the in-school and out-of-school problems that learners may have. Guidance and counseling will also provide opportunities for learners to receive sex education and advice against practices which may negatively affect their learning. In the process, guidance and counseling will reduce cases of teenage pregnancy and other practices which are harmful to learning. By reducing the possibility of destructions for learners, guidance and counseling will contribute to an improvement in learner’s academic engagement and academic performance, and thereby reduce repetition and dropout resulting from teenage pregnancy and similar distractions.

4.8 Summary
In sum, then, this study reveals some patterns of grade repetition and dropout of learners with disabilities. In addition, the study is informative in three major ways. First, the findings of this study affirm the findings of previous studies on the wastage of learners with disabilities. For instance, consistent with previous research, this study demonstrates that the costs of schooling lead to the dropout of learners with disabilities, and sickness leads to repetition and dropout of learners with disabilities.
Second, the findings of this study extend the work of other studies. For instance, while previous research associated the costs of schooling to the dropout of learners with disabilities, this study associates schooling costs to repetition as well. Similarly, while previous research showed that preference for the education of children without disabilities causes the non-enrollment of children with disabilities, this study demonstrates that preference for the education of children without disabilities also contributes to the dropout of children with disabilities. Additionally, the findings of this study reveal that the wastage of learners with disabilities is associated with other factors not documented in previous research. Parents’ laxity about the education of children with disabilities, curriculum challenges and school transfers are among these other factors.

Third, the findings of this study demonstrate the similarities and differences between the wastage of learners with and without disabilities in relation to the factors influencing wastage, its impact and measures for preventing it. The findings of this study associate child labour, the costs of schooling, teenage pregnancy, overage enrollment and poor pedagogical practices to the wastage of children with disabilities, just as previous research associated these factors to the wastage of children without disabilities. Similarly, consistent with previous research on prevention of wastage of learners without disabilities, facilitating parents’ involvement in children’s education, abolishing costs of schooling and effective teaching are among the measures identified for preventing the wastage of learners with disabilities. The findings of this study also reveal that repetition and dropout have negative effects, just like previous research on the wastage of learners without disabilities demonstrates. Furthermore, unlike previous research on prevention of wastage of learners without disabilities, the findings of this study identify provision of
facilities and teaching-learning materials, guidance and counseling and child follow up
programmes as measures for preventing the wastage of learners with disabilities.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter begins with a summary of the findings for each study objective. Subsequently, the conclusions and recommendations drawn from the findings are outlined in the two sections that follow.

5.2 Summary of Study Findings

In relation to objective 1, the findings of the study reveal three patterns of grade repetition and dropout for learners with disabilities. They demonstrate that grade repetition and dropout of learners with disabilities from primary school is not frequent; and that grade repetition and dropout affect more boys than girls, and learners with hearing impairments more than learners with physical and visual impairments.

In relation to objective 2, primary school wastage of learners with disabilities has been attributed to ten factors in this study: child labour, schooling costs, teenage pregnancy, preference for the education of children without disabilities over those with disabilities, parents’ laxity regarding the education of children with disabilities, overage enrollment, curriculum challenges, poor pedagogical practices, sickness and school transfers.

In relation to objective 3, the findings reveal the impact of wastage on learners and dropouts with disabilities. Four effects are identified for grade repetition: an improvement in academic performance, a decline in academic performance, negative socio-emotional
consequences and dropout. Unemployment, begging, sexual abuse and exploitation and unreliable casual work are the effects identified for dropout in this study.

Finally, to achieve objective 4, a model for preventing wastage, based on the findings on measures for preventing wastage from this and previous studies, was developed. The proposed model consists of measures to be implemented at the community and school levels.

5.3 Conclusions

Several conclusions can be drawn from the findings of this study. First, although previous studies on the wastage of learners with and without disabilities have paid little attention to the contribution of in-school factors to wastage, findings of this study demonstrate that the contribution of in-school factors, particularly curriculum challenges and poor pedagogical practices, may be even greater than that of out-of-school factors. The fact that curriculum challenges were identified in this study as a major contributor to the wastage of learners with disabilities suggests that our “one size fits all” school curriculum is not appropriate for a substantial number of learners with disabilities, and I’ll bet those without disabilities too. This is because curriculum challenges hinder and/or limit access to curricula content, which may result in a history of repetition, school failure, and dropping out.

Curriculum challenges are a huge barrier to learning, but teachers’ poor pedagogical practices are probably a bigger barrier. A competent and committed teacher is perhaps the
most critical resource for facilitating learning. Without a competent and committed teacher, limited (if any) learning can occur. Furthermore, a competent and committed teacher can potentially be the mediating force which decreases barriers to learning posed by factors outside the school.

Second, although the frequency of repetition and dropout of learners with disabilities from primary school seems to be low as a percentage of class size, the actual numbers are not very low. A significant number of learners with disabilities experience wastage, and its impact is negative. Given this negative impact, measures for preventing wastage need to be undertaken forthwith.

Third, given the impact of repetition revealed by previous studies and the findings of this study, it can be argued that repetition is an unethical practice and it should not occur in schools. But the researcher’s interviews with teachers suggest that they do not violate government policy just because they want to be rebellious. Rather, many of these teachers do not know how else to address the needs of learners whose academic performance is low, since they do not believe that promoting learners who do not demonstrate mastery of concepts is a solution.

Finally, the findings of this study suggest that the educational wastage of learners with disabilities can be reduced, if not eliminated through the concerted efforts of various stakeholders, such as: teachers, parents, and sponsors.
5.4 Recommendations

Two groups of recommendations are made in this section: recommendations for the ministry of education and recommendations for further research.

5.4.1 Recommendations for the Ministry of Education

Based on the findings of this study, several recommendations can be made to the ministry of education. These recommendations will facilitate the implementation of the proposed model for preventing wastage which was presented and discussed in the previous chapter.

I. The school curriculum needs to allow for curriculum differentiation. The Ministry of Education should direct the Kenya Institute of Curriculum Development (KICD) to alter the existing school curriculum so it can accord teachers the flexibility to differentiate curricula content, instruction and evaluation procedures when necessary to suit learners’ needs. These changes to the school curriculum will be critical in meeting the needs of many learners in Kenya, not just those with disabilities.

II. The Ministry of Education should enhance its quality assurance and standards mechanisms through the Teachers Service Commission (TSC). Regular evaluation of teachers should be conducted to ensure that high quality performance is maintained. Enhancing quality assurance and standards mechanisms will also provide useful information on training needs, which can be addressed during regular in-service teacher training.

III. There is an urgent need to in-service teachers, especially on the provision of mentoring and guidance and counseling services to learners, how to
differentiate taught content, teaching methods and evaluation to accommodate learners’ individual needs, and how to collaborate with parents.

IV. Once teachers have been in-serviced, the Ministry of Education should use them to conduct aggressive sensitization campaigns for parents of children with disabilities. These sensitization campaigns for parents will increase parents’ involvement in and commitment to their children’s education, and in the process, contribute to the reduction of frequent absenteeism, and the repetition and dropout of learners with disabilities from school.

V. Schools should be provided with funds to follow up possible dropouts when they have been absent for a while. Two schools in this study reported that this strategy was effective in reducing dropout in their institutions. Consequently, this strategy may be effective in other institutions as well.

VI. All learners from economically deprived backgrounds, whether or not they have disabilities, should be provided with 100% economic support so their parents do not incur schooling costs. This is an important measure for preventing repetition and dropout, since schooling costs make a substantial contribution to the wastage of learners from economically deprived families.
5.4.2 Recommendations for Further Research

The following recommendations for further research can be made.

1. There is need to research the extent of repetition and dropout of learners with disabilities in Kenya. A longitudinal study would be ideal for this purpose.

2. This study was not very illuminating in terms of parents’ contribution to the educational wastage of learners with disabilities, partly because their contribution was revealed largely through teachers’ perception of the situation. There is need to research parents’ perceptions on their children with disabilities and their education from the parents’ point of view.

3. Because the number of dropouts accessed for this study was very small, the impact of dropout on dropouts with disabilities could not be fully understood. There is therefore a need to research the impact of dropout, particularly from the dropouts’ point of view.
REFERENCES


[www.wikipedia.com](http://www.wikipedia.com)

APPENDICES

APPENDIX A

School Register Analysis Guide

1. What is the number of learners in each class attendance register?

2. How many of these learners progress to the next class?

3. How many of these learners repeat the class?

4. How many of these learners drop out of primary school?

5. Repeaters constitute what percentage of the class?

6. Dropouts constitute what percentage of the class?
APPENDIX B

Interview Guide for Focus Group Discussions with pupils

Rapport Creator:

- Tell me about yourselves and your families.
  
  \textit{Probe:} cultural background, number of siblings, likes and dislikes.

- In which classes are you? Do you like being in these classes?

1. What do you like about school?
   
   \textit{Probe:} subjects you like most, preferred teachers, preferred after school events.

2. What don’t you like about school?
   
   \textit{Probe:} subjects you dislike, teachers you dislike, after school events you dislike.

3. How often do pupils repeat classes in this school?
   
   \textit{Probe:} Most repeated grade, difference between boys and girls, younger and older pupils.

4. Why do pupils repeat classes in this school?
   
   \textit{Probe:} Discipline problems, poor performance, learning needs not met, social and cultural attitudes, peer influence, difficult learner-teacher relationships, poor teaching methods, teacher attitudes and expectations, limited parental involvement.

5. How does repetition affect children? Does repetition help or hurt children?
   
   \textit{Probe:} having friends and social relationships, feelings about self, declining academic performance, dropping out.

6. What can be done to prevent repetition in this school?
   
   \textit{Probe:} improvement in the learning process, parental involvement, guidance and counseling.
7. How often do pupils drop out in this school?

**Probe:** during which grades do dropouts often occur? Difference between boys and girls, age factor.

8. Why do pupils drop out in this school?

**Probe:** Discipline problems, poor performance, learning needs not met, social and cultural attitudes, peer influence, difficult learner-teacher relationships, poor teaching methods, teacher attitudes and expectations, limited parental involvement.

9. How does dropout affect children? Does dropout help or hurt children?

**Probe:** feelings about self, having friends and social relationships, limited access to continued training, limited employment opportunities.

10. What can be done to minimize or prevent dropout in this school?

**Probe:** improvement in the learning process, parental involvement, guidance and counseling.
APPENDIX C

Interview Guide for Individuals who Dropped Out

Rapport Creator:

Tell me about yourself and your family.

_Probe:_ cultural background, family type, number of siblings, likes and dislikes.

1. What did you like about school?
   _Probe:_ subjects you liked most, preferred teachers, having friends and social relationships, favourite extra-curricula activities.

2. What didn’t you like about school?
   _Probe:_ subjects you disliked, teachers you disliked, few friends and social relationships, extra-curricula activities you disliked.

3. How long were you in school? When did you drop out?

4. Why did you drop out?
   _Probe:_ dislike of subjects and teachers, peer influence, discipline problems, learning needs not met, apathy towards formal education, social and cultural attitudes.

5. How has dropping out affected your life? Did dropping out help you or hurt you?
   _Probe:_ feelings about self, having friends and social relationships, limited access to continued training, limited employment opportunities, activities engaged in since dropping out.

6. What could have been done to make sure you don’t drop out?
   _Probe:_ By government, by parents, by head teacher and teachers, by self
APPENDIX D

Interview Guide for Teachers

Bio Data (To be filled by the interviewee):

**Gender:** Male:_______ Female:_______

**Educational qualifications:**

**Years of experience:**_______

**Years taught at current school:**_______

**Other places you have taught and length of stay:**

1.________________________________
2.________________________________
3.________________________________

1. What has been your experience in teaching learners with disabilities?
2. What challenges have you experienced in teaching learners with disabilities?
   **Probe:** facilities, knowledge and skills, educational policy, parents.
3. What is the government doing for a school like this one to facilitate teaching and learning?
4. How frequent is repetition for learners with disabilities?
   **Probe:** most repeated grade, difference between boys and girls, learners from different ethnic groups and learners of different religions.
5. (Optional): In your experience (of teaching learners with disabilities in both special and regular schools), which learners with disabilities repeat more frequently, those learning in special or regular schools?

6. What factors lead to the repetition of learners with disabilities?
   
   **Probe:** discipline problems, peer influence, learning needs not met, social and cultural attitudes, limited parental involvement.

7. How do the reasons for repeating of learners learning in special schools compare with the reasons for repeating of learners learning in regular schools? Comparison between boys and girls?

8. What impact does repetition have on these learners?

   **Probe:** feelings about self, having friends and social relationships, declining academic performance, dropping out.

9. In your experience, what can be done to minimize or prevent repetition of learners with disabilities?

   **Probe:** By government, by parents and families, by schools, by children themselves

10. How frequent is dropout for learners with disabilities?

    **Probe:** common grade for dropping out, difference between boys and girls, learners from different ethnic groups and learners of different religions.

11. (Optional): In your experience (of teaching learners with disabilities in both special and regular schools), which learners with disabilities drop out more frequently, those learning in special or regular schools?

12. What factors lead to the drop out of learners with disabilities?
Probe: discipline problems, peer influence, learning needs not met, social and cultural attitudes, safety issues, limited parental involvement.

13. How do the reasons for dropping out of learners learning in special schools compare with the reasons for dropping out of learners learning in regular schools? Comparison between boys and girls?

14. What impact does drop out have on these children?

Probe: feelings about self, having friends and social relationships, limited access to continued training, limited employment opportunities.

15. In your experience, what can be done to minimize or prevent dropout for learners with disabilities?

Probe: By government, by parents and families, by schools, by children themselves
APPENDIX E

Interview Guide for Head Teachers

Bio Data (To be filled by the interviewee):

Gender: Male:________ Female:________

Educational qualifications:

Years of experience:________

Years taught at current school:________

Other places you have taught and length of stay:

1.________________________________
2.________________________________
3.________________________________

1. A. What has been your experience in teaching learners with disabilities?
   B. What has been your experience as a head teacher of a school catering for learners with disabilities?

2. What challenges have you experienced in teaching learners with disabilities?
   Probe: facilities, knowledge and skills, educational policy, parents.

2. What can the government do to facilitate your work?
3. How frequent is repetition for learners with disabilities?

Probe: most repeated grade, difference between boys and girls, learners from different ethnic groups and of different religions.

4. (optional): In your experience (of teaching children with disabilities in both special and regular schools), which children with disabilities repeat more frequently, those learning in special or regular schools?

5. What factors lead to the repetition of learners with disabilities?

Probe: discipline problems, peer influence, learning needs not met, safety issues, limited parental involvement.

6. How do the reasons for repeating of learners learning in special schools compare with the reasons for repeating of learners learning in regular schools? Comparison between boys and girls?

7. What impact does repetition have on these learners?

Probe: feelings about self, having friends and social relationships, declining academic performance, dropping out.

8. What can be done to minimize or prevent repetition of learners with disabilities?

Probe: By government, by parents and families, by schools, by children themselves

9. How frequent is dropout for learners with disabilities?

Probe: common grade for dropping out, difference between boys and girls, learners from different ethnic groups and learners of different religions.

10. (Optional): In your experience (of teaching learners with disabilities in both special and regular schools), which learners with disabilities drop out more frequently, those learning in special or regular schools?
11. What factors lead to the drop out of learners with disabilities?

   **Probe:** discipline problems, peer influence, learning needs not met, social and cultural attitudes, safety issues, limited parental involvement.

12. How do the reasons for dropping out of learners learning in special schools compare with the reasons for dropping out of learners learning in regular schools? Comparison between boys and girls?

13. What impact does drop out have on these children?

   **Probe:** feelings about self, having friends and social relationships, limited access to continued training, limited employment opportunities.

14. What can be done to minimize or prevent dropout for learners with disabilities?

   **Probe:** By government, by parents and families, by schools, by children themselves.
APPENDIX F

Interview Guide for Parents of Dropouts

**Rapport Creator**

Tell me about yourself and your family.

**Probe:** Number of children, where they are, schooling, career

1. Tell me about your experience in bringing up a child with a disability.

2. What things are necessary to enable children with disabilities to learn effectively and succeed in school?

   **Probe:** parental support, costs, type of school, in-school aspects like curriculum, facilities, teachers

3. What challenges do parents face in educating children with disabilities?

   **Probe:** costs, time and energy demands, strained parent-teacher relationship, stigma and social isolation, grade repetition, dropping out.

4. What factors made X drop out of school?

   **Probe:** discipline problems, peer influence, dislike of subjects and teachers, learning needs not met, apathy toward formal education, safety issues.

5. What has X been doing since dropping out?

6. How has dropping out affected X?

   **Probe:** feelings about self, having friends and social relationships, limited access to continued training, limited employment opportunities.

7. What could have been done to ensure that X does not drop out?

   **Probe:** By government, school, the child, you.
APPENDIX G

Interview Guide for Parents of Repeaters

Rapport Creator

Tell me about yourself and your family.

Probe: Number of children, where they are, schooling, career

1. Tell me about your experience in bringing up a child with a disability.

2. What things are necessary to enable children with disabilities to learn effectively and succeed in school?

Probe: parental support, costs, type of school, in-school aspects like curriculum, facilities, teachers

3. What challenges do parents face in educating children with disabilities?

Probe: costs, time and energy demands, strained parent-teacher relationship, stigma and social isolation, grade repetition, dropping out.

4. How would you describe the school experiences of X?

Probe: learning experiences, repetition, feelings about colleagues, teachers and specific subjects, feeling secure or insecure.

5. (optional): If your child (ren) with disabilities repeated a class (es), what factors led to their repetition?

Probe: learning needs not being met, poor teaching methods, peer influence, poor performance, teacher-learner relationships, discipline problems, safety issues.

6. (optional): What effect did repetition have on X?

Probe: feelings about self, having friends and social relationships, declining academic performance.
7. What can be done to minimize repetition and drop out of children with disabilities?

Probe: by government, school, parents and families, children themselves.
APPENDIX H

Interview Guide for Children who Have Repeated Grades

Rapport Creator:

- Tell me about yourself and your family.
  
  Probe: cultural background, family type, number of siblings, likes and dislikes.

- Which class are you in? Do you like being in this class?

1. What do you like about school?

  Probe: favourite subjects, preferred teachers, favourite extra-curricula activities, having friends.

2. What don’t you like about school?

  Probe: subjects you dislike, teachers you dislike, extra-curricula activities you dislike, few friends and social relationships.

3. How often have you repeated classes?

4. What factors led to your repetition?

  Probe: discipline problems, learning needs not met, peer influence, teacher attitudes and expectations, poor teaching methods, social and cultural attitudes, limited parental involvement.

5. How did repetition affect you? Did repetition help you or hurt you?

  Probe: feelings about self, having friends and social relationships, declining academic performance.

6. What could have been done to ensure that you don’t repeat classes?

  Probe: by government, school, parents, yourself.
APPENDIX I

Interview Guide for Former Learners

1. Please tell me about yourself.
   
   Probe: congenital or adventitious disability, general challenges of coping with a disability, family background, years of formal schooling and educational certification.

2. Please describe your school experiences.
   
   Probe: which primary and secondary schools were attended, school likes and dislikes, difficulties in school.

3. What challenges did you experience as a learner with a disability?
   
   Probe: financial challenges, low teacher expectations, discrimination, educational needs not being met.

4. Did you repeat any classes in primary school?

5. Why did you repeat?

6. In your experience, how frequent was the repetition of learners with disabilities in the primary school you attended?
   
   Probe: most repeated class, difference between boys and girls, learners from different economic, ethnic and religious groups.

7. As far as you know, how frequent is the repetition of learners with disabilities in primary schools now?
   
   Probe: most repeated class, difference between boys and girls, learners from different economic, ethnic and religious groups.
8. What factors contribute to the repetition of learners with disabilities in primary school?

   Probe: educational needs not being met, peer influence, financial challenges, persistent absenteeism.

9. When learners with disabilities repeat one or more classes, how does repetition affect them?

   Probe: embarrassment, demotivation to learn, dropout.

10. What measures can be put in place to prevent or minimize repetition of learners with disabilities in primary school?

11. How frequent was dropout of learners with disabilities in the primary school you attended?

   Probe: classes at which many learners drop out, difference between boys and girls, learners from different economic, ethnic and religious groups.

12. As far as you know, how frequent is the dropout of learners with disabilities from primary school now?

   Probe: classes at which many learners drop out, difference between boys and girls, learners from different economic, ethnic and religious groups.

13. What factors contribute to the dropout of learners with disabilities from primary school?

   Probe: educational needs not being met, negative peer influence, financial challenges, teenage pregnancy.

   When learners with disabilities drop out from primary school, how does dropping out affect them?
Probe: limited employment opportunities, engagement in drug abuse, engagement in criminal activities, street begging.

14. What measures can be put in place to prevent or minimize drop out of learners with disabilities from primary school?

15. What are your recommendations for improving the education of learners with disabilities?