AN EVALUATION STUDY OF THE EFFECTIVENESS OF MOBILE PRE-SCHOOLS EDUCATION IN WAJIR DISTRICT, KENYA

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A Research Thesis Submitted in Partial Fulfillment of the Requirements for the Award of a Master of Education Degree in Early Childhood Education Department of Educational Communication and Technology, University of Nairobi

2010

DECLARATION

This thesis is my original work and has not been presented for an award of degree in any other institution.

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DEDICATION

This study is dedicated to my late parents Mohamed Adan and Halima Hassan whose efforts and sacrifices to educate me have borne this work.

The study is also dedicated to my beloved husband Elias Jama and our children Naima, Noordin, Nasteha, Nasirudin, Badrudin, Burhadin and my lovely grandson Sudeys.

ACKNOWLEDGEMENT

I extremely appreciate the encouragement and the assistance of friends which they gave me carrying out this study. First of all, I would like to thank the Almighty Allah for the care, strength, good health and insight to produce this work. I would also like to thank most sincerely my supervisors, Dr. Jane C. Gatumu and Mr. John Thiongo for supervising and assessing this study. They guided me patiently and offered advice and encouragement whenever I called upon them for help.

Special tribute goes to Dr. J. Inyega and Dr. Origa for their good effort in guiding me through the classwork, the unit on Research Methods and Statistics; their encouragement has propelled me towards academic excellence.

I also wish to acknowledge the assistance of my colleagues especially Saadia Abdi Kontoma and D. Mutua for their encouragement, love and kindness.

A lot of thanks goes to my family; my husband Elias Jama for his kindness, love and resourcefulness. He was ready to give any material assistance and was always praying for me to have confidence, stability and good health. He was a source of inspiration and encouragement. I also pay tribute to my brothers and sisters for their encouragement and support.

A lot of thanks to the staff of Arid land Resource Management Project Wajir District for their assistance and Mr. Rashid Salat, Education officer in charge of mobile schools for his support and tireless effort to trace the nomadic pastoralist and the mobile schools, without whom I would not have collected the data. I also wish to appreciate all the respondents who took time off from their busy schedules to attend my interviews and respond to the questions. A lot of thanks go to Susan Mburu who did the typing and printing of the study.

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ACRONYMS AND ABBREVIATIONS

AEO	Assistant Education Officer
ALRMP	Arid Land Resource Management Project
ASAL	Arid and Semi-Arid Lands
DEO	District Education Officer
DICECE	District Centre for Early Childhood Education
ECDE	Early Childhood Development and Education
EFA	Education For All
EMACK	Education for Marginalized Communities of Kenya
FPE	Free Primary Education
GER	Gross Enrolment Rate
GOK	Government of Kenya
IMF	International Monetary Fund
KIE	Kenya Institute of Education
MoE	Ministry of Education
MoEST	Ministry of Education Science and Technology
NEP	Nomadic Education Project
NER	Net Enrolment Ratio
NGO	Non Governmental Organization
NPHC	Nomadic Primary Health Care Programme
PEP	Pre-school Education Project
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Children's Emergency Fund
UPE	Universal Primary Education
WDEA	World Declaration on Education for All
WFP	World Food Programme

ABSTRACT

The purpose of this study was to evaluate the effectiveness of mobile school education in Wajir District. The study adopted a descriptive method using survey design. The target population included 1 DEO, 2 AEOs, 5 headteachers, 10 teachers, 30 parents, 5 chiefs, 10 elders and 60 children in the mobile schools. Purposive sampling technique was used to select the DEO, AEOs, headteachers and teachers. Simple random sampling was used to select parents, chiefs and elders. Simple random sampling was used to select children in the mobile schools for the interview and the observation. Frequency distribution and percentages were used to present the data. The study found out that the community had a positive attitude towards the mobile schools. Seventy seven percent (n=23) of the parents rated them as good. The study also revealed that sixty three percent (n=19) of children showed that they had a positive attitude towards the mobile schools programme. Responses obtained indicated that children had acquired basic skills while in their nomadic setting. Sixty three percent (n=7) of elders said pupils who attended mobile school had been able to read and write. Eighty percent (n=8) of the teachers said the programme enabled the children to acquire the basic literacy and numeracy skills. These statistics clearly show how useful and effective these mobile pre-schools are. The findings revealed that the enrolment and transition rates were high. Children transiting from mobile schools to regular schools were few compared to those transiting from pre-school mobile to class three. The pupils' textbook ratio was 1:3 as recommended by Ministry of Education for mobile schools. The success of the mobile school programme was largely due to the community ownership of the programme by nomadic pastoralists of Wajir District who were the beneficiaries. However, teachers in the mobile schools had inadequate training of the multigrade skills and did not use locally available materials, which would enhance the nomadic children's performance. Based on the findings of this study, the researcher recommended that the mobile teachers be trained in multigrade teaching method and also be inducted on the use and importance of locally available materials for teaching and learning aids. The researcher suggests that there is need to carry out a similar research among other nomadic groups.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Problem

Pre-school education is a vital aspect of a child's learning and development (United Nations, 1989) because it helps in expanding the range of children's learning experiences. Importance of pre-school education lies in the fact that the children become more confident, enthusiastic and eager learners who later become successful persons in life (United Nations, 1989). Pre-schoolers enter this chapter of their life with education and knowledge from the family, friends and relatives. Hence teachers often work in partnership with the parents so that they can ensure an all-round development of the children. The attitude and aptitude are developed in these years so that the child can achieve success during the later period of his or her life, (United Nations Children's Emergency Fund- UNICEF, 1994). By promoting the child's pre-school education it helps to boost their self esteem.

Pre-school education is something that is crucial in the preparation of a child for later education. Kabiru (1994) stated that the early years of an individual are very important, because during these years, development is both rapid and highly impressionable. What happens during the first years of life has a significant influence in later development of individuals. According to UN Declaration of the Rights of the Child (1989), a child has the right to education. This means that children must be taken to school, failure to which should lead to legal action. Article 11 of the UN Declaration of the Rights of the Child (1989) says that every child shall have the right to education which shall be directed to the promotion and development of child's personality, talent, mental and physical abilities to their fullest potential.

School attendance of children of over 5 years of age is not only seen as a normal pattern of social behavior, but also a legal necessity. According to philosophers like Pestallozi, Martin, Comenius and Rosseau, parents should contribute their efforts to child's presence in pre-schools to enable them to grow holistically and form a firm foundation for their later schooling to higher levels. Parents generally like their children to attend school for their present development which is a normal thing for all children to do, (Kabiru, 1997).

Early Childhood Education did not seem to be a policy priority in the Kenya Education System since independence (United Nations Educational Scientific and Cultural Organization- UNESCO, 1990). It is rather a late-coming factor as far as the general education policy is concerned. Nonetheless, documentary evidence shows that there are seven major early childhood services which are provided within the framework of Kenya's Ministry of Education Early Childhood Education Programme (Republic of Kenya, 1976). These early childhood services were in form of nursery schools, pre-school units, kindergartens, day-nursery schools, Madrassa classes, home-based care centres and play groups. Provision of these services was influenced by socio-economic and religious backgrounds of beneficiaries, (Republic of Kenya, 1976).

The first Early Childhood Development and Education (ECDE) centres (or pre-schools) in Kenya were established by the colonial government to cater for European and Asian children (Republic of Kenya, 1976). However, the need for working mothers to take proper care of their children in Kenya strongly contributed to the development and growth of pre-school education in Kenya (Juma, 2004). Following a remarkable expansion of pre-school education in Kenya after independence, the government conducted a 10-year Pre-school Education Project (PEP) from 1972-1982, which was jointly funded by the Ministry of Education (MoE) and Bernard van Leer Foundation. The main purpose of the project was to develop

curriculum and training programmes to improve the quality of ECD services (Mwaura, 2005). The positive results motivated the government to step up ECD programmes, which led to a rapid increase in enrolments in ECDE centres. Over the years, ECD programmes have expanded through the support of households, communities, non-governmental organizations and government for an integrated development of children, (Mwaura, 2005).

In many countries around the world, mobile schools have over the years provided a formidable solution associated with provision of education to nomadic communities that live under harsh climatic conditions. Good examples include the Community Mobile Schools in Nigeria and the Tent Schools in Iran (Carr-Hill and Peart, 2005). In fact, many countries have experimented and some still pursue the use of mobile schools in order to make education more accessible to nomadic pastoralists.

Ezeomah and Pennells (2000), give several examples of different kinds of educational interventions from nomadic groups. These include skills training for pastoralist youth in Tanzania (Bugeke, 1997) and a range of skills including income generation, business skills, family care, literacy support and livestock management for women in Mongolia (Robinson, 1999). Generally, the aims of nomadic education programmes usually fall into two areas: citizenship aims; and improving quality of life, with literacy seen as vital to both (Ezeomah, 1993).

Mobile schools have largely used specially constructed tents or temporary shades under trees by nomads who move along with the animals and their mobile schools during migrations (Carr-Hill and Peart, 2005). Generally, there has been substantial experimentation with mobile schools in many countries such as Algeria (Krätli, 2000), Iran (Rybinski, 1981), Mongolia, Sudan and Nigeria (Hendershot, 1965) as having experimented on mobile schools.

Nigeria, for example, experimented with the mobile schools strategy, through a carefully-designed community mobile school project in which teachers from among the pastoral communities and those that were willing to travel with them, were trained for a three-year period and were deployed to teach in the schools (Ezeomah, 1997).

Despite the attractive nature of the mobile school approach, it has encountered a number of difficulties. Ezeomah (1997); Carr-Hill and Peart (2005) and Tahir (1998) have identified problems related to the design of the mobile collapsible classrooms, lack of adequate funds to supply and maintain the tents', insufficient number of children, the reluctance of non-nomadic teachers to travel and live nomadic lifestyle, lack of effective administration and lack of government policy among others.

In Kenya, children from Arid and Semi Arid Lands (ASALs) are mainly engaged in nomadic pastoralist activities and lifestyle and have had a low participation in formal school attendance and learning practices. As a result, over 70 per cent of children in these districts do not receive basic skills of literacy and numeracy, (Republic of Kenya, 1999). The Kenya Government's declaration of Free Primary Education (FPE) in 2003 is in line with attainment of Universal Primary Education (UPE) and Education for All (EFA), a United Nations' Millennium Development Goal that should be attained by the year 2015. While notable achievements were recorded across the country in the FPE scheme, the performance in ASAL areas retained a lackluster trend (Republic of Kenya, 2004).

North Eastern Province of Kenya is primarily inhabited by nomadic pastoralist communities, making up 80% of the population (Republic of Kenya, National Development Plan 1997 – 2001). These communities live a lifestyle which involves frequent relocation in search of fresh water and pasture for their livestock (Republic of Kenya, 2004). Due to the pastoralists' constant relocation, children from these communities have found it difficult to formally

access the Kenyan secular education system. Enrollment of Pre-school children from these communities stands at only 2% and drop-out rates are high (Republic of Kenya, 2004). Girls are particularly affected by early marriages. Most attempts to provide formal education to nomadic pastoralist communities and children have experienced limited success (United Nations Educational and Social and Cultural Organization, 2002). This is mainly attributed to the limitation of the formal education sector to respond to the unique and diverse circumstances and needs of these groups. Another problem the mobile school initiative aims to address is the inadequate capacity at national and district levels to conceptualize alternative approaches for hard-to-reach children (UNICEF, 1991).

Carr-Hill (2005) posits that the education system in Kenya is structured and demand driven. Classrooms are fixed and timings and locations are inflexible. The mobile school initiative, however, takes into consideration the mobile lifestyle of nomadic communities. Schools are provided with a camel to transport portable chalkboards, tin of books and materials as communities move (Kratli, 2000). Teaching is multi-grade to ensure all children in the community benefit. The established mobile schools, while focused on basic literacy and numeracy skills, equally cater for the Muslim religious traditions of the communities (Republic of Kenya, 2004). The schools also house two teachers, a 'Dugsi'- traditional Qu'ranic teacher and a mobile school teacher who is selected by the community and trained by Arid Land Resource Management Plan (ALRMP) (Hussein, 1999). These teachers continue to live and move with the community and provide continuous education for pastoralist children. As a result, children can attend secular lessons for two hours in the morning and two hours in the evening (Kratli, 2000).

Mobile schools have been well received by beneficiary communities who are happy that their children are receiving basic education which is suited to their nomadic lifestyles and

integrated with their cultural values (Hussein, 1999). To date, over 250 children, including 120 girls have benefited from the eight mobile schools in Wajir. For many, this has been the first time they ever had access to basic education. In addition, 14 children have transitioned to the nearby Abakore Boarding School in order to complete primary education (Education for Marginalized Communities of Kenya-EMACK, 2005). The mobile schools mark a significant step forward in providing culturally appropriate education to those who are marginalized because of traditional lifestyles. Yet there is a very poor enrolment and retention rate.

1.2 Statement of the Problem

Education, as stipulated in the Convention on the Rights of the Child (1989), is a right and every child is entitled to it. Quality early childhood education is thus important for children as it prepares them for further learning as they grow up. Pre-school education is expected to help in the holistic development of the child, whether done in a formal setting or an informal setting. In its attempt to honour this commitment of improving access to education in the whole country (ASAL's included), the Ministry of Education together with partners such as UNICEF developed several strategies. One such strategy is the establishment of mobile schools in ASAL districts. So far, 69 mobile schools have been established in ASAL districts of Ijara, Wajir, Marsabit, Moyale, Turkana, Samburu, Isiolo, Tana River, Garissa and Mandera as outlined in Table 1.1.

Table 1.1: Enrolment in Mobile Schools in Kenya in 2009

District	*No. of Schools*	*Boys*	*Girls*	*Total*
Wajir	8	160	124	284
Ijara	7	173	104	277
Garissa	5	198	143	341
Moyale	3	48	37	85

Samburu	5	157	194	345
Turkana	15	845	1,796	2,644
Marsabit	5	80	79	159
Tana River	2	120	80	200
Mandera West	5	303	136	439
Turkana	13	2,170	1,607	3,777
Isiolo	1	67	76	143
Total	**69**	**4,252**	**4,276**	**8,528**

Expanding Educational Opportunities in ASAL, MOE February 2009

In the last three years, the Ministry of Education through Expanding Educational Opportunities in ASAL (EEOA) investment programme has disbursed Kshs. 45,259,141 for purchase of educational kits and payment of teachers' salaries to the mobile schools (KESSP, 2008). In addition, schools in ASALs also benefit from GOK/WFP school feeding programme (KESSP, 2008).

Despite all these numerous interventions and efforts by the Government, the general trend is a lack of growth in the mobile schools, low enrolment rates and low transition rates to primary schools. Literacy rates, according to Wajir District Development Plan 2007 stand at 12.3% for female and 44.6% for male. To this date, over 250 children including 120 girls have benefited from the mobile schools in Wajir, yet only 14 have transitioned to the nearby boarding school in order to complete primary education (EMACK, 2005). There is need, therefore, to evaluate the effectiveness of mobile schools with focus on Wajir-Bor division of Wajir district, North Eastern, Kenya.

1.3 Purpose of the Study

The purpose of this study was to evaluate the effectiveness of the mobile schools strategy as a way of ensuring increased access of children to schools and reduced illiteracy levels in Wajir Bor division, Wajir district, North Eastern province.

1.4 Research Objectives

The study had the following objectives:

i) Establish the attitudes of nomadic communities in Wajir district towards mobile schools.

ii) Establish the extent to which the mobile school programme is meeting literacy competence of the children.

iii) Determine the extent the mobile school programme is meeting numeracy competence of the children.

iv) Examine how mobile schools have influenced the transition to primary schools in Wajir district.

v) Establish adequacy and relevance of teaching and learning material used in mobile schools.

1.5 Research Questions

In line with the objectives of the study, the research was guided by the following research questions.

i) What are the attitudes of nomadic communities in Wajir district towards mobile schools?

ii) To what extent are the mobile school programmes meeting the language competency of the pre-schoolers?

iii) To what extent are the mobile school programmes meeting the numeracy competency of the pre-schoolers?

iv) How have mobile schools influenced the transition of Pre-schoolers to primary schools in Wajir district?

v) How adequate and relevant are the teaching and learning materials used in mobile schools?

1.6 Significance of the Study

The Kenya Government's declaration of Free Primary Education (FPE) in 2003 is in line with attainment of Universal Primary Education and Education for All (EFA), a United Nations' Millennium Development Goal that should be attained by 2015. While notable achievements were recorded across the country in the FPE scheme, the performance in ASALs retained a lackluster trend (UNESCO, 2004). Therefore, since this study is based on mobile schools in the ASAls, the findings would provide some suggestions that can assist the ministry of education find ways of improving access to education in these areas. At the same time, there are policy answers and solutions that can be gained out of this study. The researcher feels that the findings in the study will better the policy approach to mobile schools especially in government agencies, among other stakeholders.

1.7 Limitations of the Study

This study involved sampling of respondents for the study. The respondents sampled may not effectively represent the point of view of the general public. Another limitation was that since the study limited itself to only the selected sample, the findings may only be true to Wajir district and any other parts of Kenya with similar characteristics as Wajir.

1.8 Delimitations

The study had focused on teachers of the mobile schools in one division in Wajir district that were public and supported by the government. The children included in the sample were only those in session at the time of study. Parents of children in the schools were also targeted, as well as village elders and chiefs in the area of study.

1.9 Basic Assumptions of the Study

The study had the following assumptions:

i) Societal factors are likely to negatively influence the educational performance in mobile schools in Wajir District.

ii) All sampled respondents of the mobile schools were accessed despite the mobile lifestyle of the nomadic communities

iii) The respondents will provide honest and valuable information as required by the researcher

1.10 Definitions of the Key Terms

Dugsi: Traditional institutions where the Holy Qur'an is taught

Early Childhood Education: Refers to the process of imparting knowledge, attitudes and skills to children under the age of 10 years.

Evaluation: This is the systematic acquisition and assessment of information to provide useful feedback about programme

Mobile Schools: The term "Mobile School" is used to refer to a form of alternative educational facility that is normally not stationary but one that caters for learning in more than one place over time and space.

Multi-grade: This is a system of teaching whereby a single class contains more than one grade level. It is a situation whereby children from two or more grade levels are taught by one teacher in one classroom, at the same time and with each following its own specific class syllabus.

1.11 Organization of the Study

The study has been divided into five chapters. Chapter one makes up the introduction. Here, the researcher made a conceptual framework of the issues to be addressed and particularly, what was to be investigated, why and how. The components of this section are the background to the problem, statement of the problem, purpose of the study, objectives, research questions, limitations, ad delimitations of the study and basic assumptions.

Chapter two presents relevant literature on mobile schools with an aim of identifying academic and policy gaps. Chapter three is about methodology: the research design, population, samples and sampling technique, instruments, validity and reliability, procedure for data collection and data analysis. Chapter Four is the core of the study. It presents and analyses the findings of the study. Finally, Chapter five forms the summary of findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines research studies related to the topic under investigation. Specifically, the study looked at Early Childhood Education in Kenya and mobile schools around the African region and Wajir District in North Eastern Kenya, which is specific to the study and also in attainment of Education for All.

2.2 Importance of Early Childhood Education

Myers (2000) states that the period of early childhood has been identified as the most formative in a child's development, one that will have long-lasting—even permanent—effects on his/her adult life. According to him, from birth to age eight, a child gradually masters increasingly complex levels of moving, thinking, feeling, and interacting with people and the world around him. According to Myers (2000) the physical development and custodial requirements of young children are universally acknowledged. By age six, the brain has reached 90% of adult size. Abundant evidence from diverse fields—physiology, nutrition, health, sociology, psychology, and education—shows how these early years (beginning with conception) are crucial to the development of intelligence, personality, and social behavior (Myers, 2005).

Mwaura (2005) argues that many of the problems constraining the development of Africa's human resource base are rooted in the early childhood (0–6 years old) of its impoverished and disadvantaged populations. Inadequate nutrition and health care, unstimulating child care environments, and insufficient parenting of young children can result—in the short-term—in stunted physical, cognitive, and psycho-social development, ill health, and lack of school

readiness, and in the longer-term—in poor academic performance, low economic productivity, and anti-social behaviors as children grow to adulthood. As supported by Myers (2000) numerous studies from both rich and poor countries show that early childhood care and development (ECCD) services can make a difference in the physical, intellectual, social, and emotional development of this vulnerable age group.

Mwaura (2005) notes that these early interventions not only improve the immediate well-being of young children, but may manifest themselves at later stages in their lives with both social and economic benefits for the individual, his family, and society. The potential positive rates of return and cost-savings in terms of better school performance and health associated with ECCD investments are of particular importance to the public sector and its ministries of education, health, and social affairs.

According to the World Bank (2000), the benefits of ECCD are increasingly well-known to policy-makers yet both government and donor ability to act is compounded by insufficient public sector budgets and concern about diverting resources from existing education and health investment priorities, as well as by lack of knowledge about the most effective approaches, costs, management, and financing strategies within the African context. Yet, as Africa falls further behind in the global race towards universal primary education, the potential of ECCD to contribute to the goals of education-for-all becomes more significant (World Bank, 2000). There is a pressing need to identify and develop models of implementation and finance that are efficient, affordable and likely to be sustained on a large scale in sub-Saharan Africa, where over 40% of the population subsists on less than $1/day (World Bank, 2000).

Mwaura (2005) noted that the Government is keenly aware of the importance of investing in quality care and education for Pre-school children. The existing ECDE guidelines, the

Government encourages collaboration with parents, communities, bilateral and multilateral donors, NGOs and other stakeholders in provision of ECD services. The service age category is six to thirteen years in primary schools while the pre-school age is four to five years inclusive but there is a varied regional difference in the entry age with some joining at age eight or nine years and majority not attending at all (Mwaura, 2005).

As reflected in many official documents such as the Gachathi Report (Republic of Kenya, 1976) and Kamunge Commission Report (Republic of Kenya, 1988), the government is keenly aware of the importance of investing in quality care and education for pre-school children. According to Luthar (2003), KESSP reflects the government's plan to mainstream early childhood development as part of basic education and integrate four to five years old children into the primary cycle by 2010. Whereas the proposed integration of ECDE in the primary education sub-sector is a welcome move, there is no equivalent service structure for children under the age of three (Bernard van Leer Foundation, 1994). Coupled with unclear government plan for supporting community schools and lack of co-ordination of ECDE services especially for children below three years of age has led to a shortage of data to show what is happening on the ground. Without appropriate policy initiatives, the most vulnerable and disadvantaged children will not have access to quality early childhood services. This will make them less ready for the formal education system and weaken their performance in the competitive and centralized examination, which determines placement into national education and training institutions. This will mean that the regional disparities in performance of national examination will persist, hence undermining poverty alleviation effort (Bernard van Leer Foundation, 1994).

The United Nations Educational Scientific and Cultural Organization (UNESCO, 2005) identified these challenges as follows:

- Generally, it is only children from middle and upper class families who benefit from pre-school experiences. Children from disadvantaged communities such as semi-arid and urban slums have little access to these services (UNESCO, 2000). Because of regional disparities in access to early childhood care and education, enrolment levels in the rural areas are low compared to those in urban areas. According to Phillips and Bhavnagri (2002), the Maasai, a migratory community in Kenya, arguably has the least access to early childhood education and care.

- The introduction of the free primary education programme has had a negative impact on access to pre-primary education. Arguing that the government should provide free pre-school as well as primary education, poor parents refuse to pay pre-school fees and instead choose to withdraw children from ECDE centers and/or keep them at home until they attain the primary school entry age (Republic of Kenya, 2003).

- UNESCO (2005) further note that ECDE services can be provided in a variety of settings- a school site, a family home, a church, through the mass media, or even informal gatherings. As long as appropriate programmes are undertaken to target the age group concerned and the comprehensiveness of the services provided, including health, nutrition and developmentally appropriate learning contexts (Republic of Kenya, 2006).

2.3 Mobile Schools for Nomadic People around Africa

According to Shahshahanis (1995), mobile schools have generally used specially constructed tents or temporary shades under trees or thatches. They are staffed by teachers who move with the nomads and their mobile school during migrations. The well-known examples are the community mobile schools in Nigeria and the tent schools of Iran. Of the latter, the founder wrote that the teachers in the tent schools in Iran noticed how the nomad children

learned surprisingly quickly and appeared exceptionally outspoken and willing to participate in lessons. Moreover, "when the children pass to the city schools, they almost invariably excel their city cousins."

According to Tahir (1998), in Nigeria, the community education programme includes a nomadic project intended to increase access to pastoralists in Adamawa and Taraba States through training teachers who are from the pastoral communities and are willing to travel with them. The aim of the pre-service training programme is to train 60 (two groups of 30) teachers in a three-year period to sit for the grade 2 examinations. The course has had a high level of student retention; self-study modules have been developed; and there is a high level of community support.

Areas of concern on this pre-service programme include:

- the project focuses on split movement/semi-sedentary groups rather than the total movement groups originally targeted (people from his group were not willing/able to attend the course)
- Entry qualifications vary widely and for some the course has been too short
- There have been only seven females trainees in the two groups of 30 students
- Traditional methods of teaching (as opposed to more participatory methods) dominate
- Children do not have sufficient English to understand the language used in the modules
- Textbook provision is very limited

Ezeomah (1997) also wrote about single teachers' mobile schools that largely failed, for a combination of reasons, including lack of government policy, using non-nomadic teachers, an irrelevant curriculum and lack of effective administration. There has been substantial

experimentation with mobile or tent schools. Kratli (2000) cited examples in Algeria (Rybinski, 1981), Iran (Hendershort, 1965; Varlet and Massumian, 1975) and Nigeria (Udoh, 1982). In Mongolia, gers (the white tents of the nomads) are used. These are low-cost and the teachers, themselves who are nomads, move with the group (Ezeomah, 1997).

Shahshahanis (1995) further noted that tent schools were introduced in Iran (then Persia) as part of the Tribal Education Programme. The programme was presented as a genuine commitment to bring education to the tribes and a radical change of direction from the previous attempts to sedentarize them; but it was also conceived as a way to consolidate the control of the young Shah "over a divided and rebellious country" (Kratli, 2000, cited in Barker, 1981). The founder also saw education as an instrument to transform them into loyal citizens, Shahshahanis (1995: 36-37).

Hundreds of tribal schools were built in the settlements and tent schools were introduced to cater for small groups of mobile households. The equipment of tent schools was kept to the minimum, with just one blackboard, one case of equipment for science and nature study, and the teacher's and pupils books. A training centre for tribal school teachers was opened in 1957, after an attempt to substitute the first group of virtually untrained local teachers with well-qualified city teachers had failed. Initially, the programme covered only primary education with secondary education being introduced in 1968. In 1973, there were almost 50,000 pupils enrolled in tribal schools (90% boys) about 20% of whom were in some 600 tent schools. At its peak, the programme reached about 10% of school-age children.

2.4 Mobile Schools in Kenya

During the last 20 years, no significant attempt has been made to provide the children of practicing pastoralists with an education in terms that are consistent with their pastoral

lifestyles. Efforts to do so tend to be confined to small-scale, innovative projects such as the one implemented by the Nomadic Primary Health Care Programme (NPHC) in Wajir. Recognizing the problems faced by pastoralists, the NPHC initiated a mobile school or Hanuniye project in 1995 that was intended to overcome the exclusion of pastoralists from education due to their mobility (Hussein, 1999).

Hussein (1999) further noted that the Hanuniye project had based its implementation strategy on what might be called the Dugsi approach, which has a mobile teacher living with the family, or herding group of which they are a part, in just the same way that a Qu'ranic teacher would do. The attraction of this model is that it is consistent with daily mobility needs with lessons designed to fit around household labour arrangements, as well as long distance mobility.

As far as participation is concerned, the Hanuniye project enrolled 3,148 boys and 2,830 girls as students between 1995 and 1999 (Hussein, 1999). Assuming these figures are accurate, it is a remarkably high number, representing approximately 50% of the total district primary enrolment. What is even more notable is the approximate equivalence of the figures for girls and boys. Such a significant and quick uptake of the programme challenges previous notions of pastoralists being uninterested in, or dismissive of education, and suggests instead that it is the way in which education was made available that has been the major stumbling block to their effective participation.

According to Tahir (1998), mobile schools have encountered problems with the design of the collapsible classrooms, lack of finance to supply and maintain adequate numbers of the tents, and the reluctance of non-nomadic teachers to travel and live a nomadic lifestyle. Gore, Eissa and Rahma (1998) noted that UNICEF Nomadic Education Project in Darfur used collapsible

classroom tents and attempted to provide skills development in animal husbandry as well as basic education through a modified version of the national curriculum. The results were mixed: Few male adults participated in the adult education classes and there was high drop out. The intended mobility did not function. When the nomads dispersed into small family groups during the wet season, it did not prove possible to continue classes with the (face-to-face) model used. The tents were found to be inappropriate and were not used, but were felt to be a status symbol for the communities that held them.

Akaranga (1997), in Ezeomah assessed the education of nomadic populations in Africa. He established that,

> *Nomadic and other population in arid and semi-arid areas face unique hardships, accompanied by high risk of malnutrition, disease and premature death. They are exposed to long period of drought, famine and food insecurity which make basic survival difficult. Because they have been ecologically and historically disadvantaged most nomadic families have very few economic resources.*
>
> *The scarcity of water and firewood also creates difficulties. The potential for economic activities, which might enable families to better their circumstances and provide more effectively for their children, is also limited by the nomad's environment and way of life. Unless nomadic mothers and children receive well targeted and sustained assistance – probably including mobile services in health, education, literacy and water provision – their situation in unlikely to improve significantly in the near future. (p. 35)*

Akaranga (1997) also established that in Kenya there were no policies specifically targeting nomadic pastoralists, their interests being subsumed within the general category of marginalized groups such as Arid and Semi-Arid Lands (ASAL). While the Government of Kenya reiterates in several official documents its commitment to provide education to all its citizens, those in ASAL regions in Kenya, where a majority of nomadic pastoralists live, are among the most disadvantaged learners. Population density is however very low in these areas, making it difficult to provide a comprehensive school network.

Akaranga (1997) further noted that the net enrolment ratio (NER) ranges from 9% in Garissa to 46% in Kajiado, compared to a national figure of 68%. The gross enrolment ratio (GER) ranges between 13% in Garissa to 60% in Kajiado, as compared to a national figure of 87.6% in the year 2000. Part of the reason why participation is low in Northern and North-Eastern Kenya is because the schools are few and therefore educational opportunities are relatively fewer in number. Other significant factors in explaining the lack of participation in education include the cost of education, especially that of boarding schools, and the insecure situation in the areas.

2.5 Education for All

Education is a fundamental right of every person, a key to other human rights, the heart of all development, the pre-requisite for equality, diversity and lasting peace according to World Education Forum on Education for All (All for Education, a Framework for Action, Dakar, April 2000). Education occupies a central place in Human Rights and is essential and indispensable for the exercise of all other human rights and for development. Article 26 of the United Nations 1984 Universal Declaration on Human Rights, state that "*everyone has the rights to education*", Article 28 of the United Nations Convention on the Rights of the Child (UNCRC, 1989) set out the right to education to which every child is entitled and Article 29 of the Convention attaches importance to the process by which the right to education is to be promoted (United Nations Convention on the Right of the Child, 1989).

Article 13 of the International Convention on Economic, Social and Cultural Rights (ICESCR) set out the right to education in similar terms to the UNCRC. The World Declaration on Education for All (WDEA), Dakar Senegal, 2000 states that every person, child, youth and adult, shall be able to benefit from educational opportunities designed to

meet their basic learning needs (World Declaration on Education for All, Dakar, Senegal, 2000).

Dakar Framework for Action (2000) on Education for All (Goal 6) advocates for improving all aspects of the quality of education and ensuring excellence of all, so that recognizable and measurable learning outcomes are achieved by all especially in literacy, numeracy and essential life skills. In Kenya, this goal is reflected in the Sessional Paper No. 1 of 2005 which calls for the establishment of a system to monitor learners' achievements (MOEST Sessional Paper No. 1 of 2005 on Education, Training and Research 2005).

According to James D. Wolfenson, President of the World Bank (World Bank, 2003), education is the seed and flowers of development. For people, it opens up a world of opportunities, reduce the burden of disease, poverty and give greater voice in society. For nations, it opens doors to economic and social prosperity, citizens who are able to compete and co-operate in the global arena. Since education is a powerful level for poverty reduction and economic growth, it empowers people to take charge of their lives and make informed choices which bring forth quality of life. Education gives voice to the disadvantaged and is fundamental to constructing society (World Bank, 2003).

Part 2, Section 6 of the Children's Bill passed by the Kenyan parliament in 2001 states that, "every child shall be entitled to education, the provision of which shall be the responsibility of the Government and parents". The Children's Bill is a concrete manifestation of action to domesticate the 1989 UNCRC, and other international conventions, Treaties and Declarations which have implications for the protection, care and education of children (Republic of Kenya, 2001).

During the General Debate of the 27th Special Session of the Geneva Assembly on Children in New York, 2002, George Saitoti the then Vice President and Minister for Home Affairs said that the Government of Kenya (GOK) was among the countries that ratified the UNCRC in 1990 and had committed itself in enhancing the rights of children (The General Debate of the 27th Special Session of the General Assembly on Children, New York, Wednesday, May 8, 2002).

Children therefore have a right to education, especially basic education designed to meet the basic learning needs, comprised of literacy, numeracy, oral expression and problem solving. Basic learning content comprises of knowledge, skills, attitude and values (Ekundayo, 2001).

2.6 Constraints Related to Accessibility to Education

According to Jama (1991) sparse distribution of the nomad population is the foremost obstacle limiting children's attendance in school. This low population density makes it difficult to gather enough pupils' population to make it cost-effective UNICEF (1978). If facilities are provided to such sparse population, costs per pupils are far higher than schools in town and villages (Jama 1991).

According to Gorham (1978) children of pastoral nomads are significant contributors to the household income through their labour, even from early age. Carhill (2005) stated that among these communities, children are viewed as an economic asset. Such economic benefits are cultivated in the short term, the children being useful to help the family raise livestock. Children look after animal herds, for instance, sheep, goats, and camels, and undertake most household duties. Therefore, parents would want to maintain their children's contribution and the time to avoid the cost of school (Jama, 1991).

According to UNICEF (1989), Children's labour was often critical to the income or survival of household of poor families in Wajir district, especially the pastoralists Odada (1998). Kratil (2001) also observed that nomadic pastoralists view both school and schooling as an alien thing that does not contribute to the pastoral way of life. Jama (1991) noted that pastoral nomads' independence and reluctance to change their traditional ways poses major obstacle. According to Kratil (2001) they believe that such facilities will in the end alienate their children from them and the society at large. As an example, the Buckland report (1992) quotes two gypsies who emphasized that the school should not alienate the 'traveler children' from their culture.

According to Gorham (1978) the content of the curriculum is generally considered inappropriate for the children of pastoral nomads. It does not provide skills to improve the livelihood of nomads. There is lack of demonstrable practical benefits for the pastoral economy. KHRC (2000) noted that the curriculum focuses on academic achievements that only suit the needs of urban children. Emerging evidence from earlier studies on nomadic education in Nigeria (Ezeoma, 1983; Junaid, 1987 and Tahir, 1997) indicates that the use of inappropriate curricular and instructional materials is one of the factors which hinder nomadic education.

According to a study carried out by UNICEF (1998), the proximity and access to regular school was a predetermining factor on the enrolment and transition. In Arid and Semi-Arid areas (ASAL), the distance between school and homes is far and education delivery systems are often incompatible with the lifestyle of the nomadic communities. Distance between schools and home affects the nomadic children because parents are afraid of letting the young ones walk alone and they may be kept out of school unless there was someone to accompany them (Sifuna, 1980).

According to Abdi (1999), cost-sharing policy and particularly the increased cost-sharing recommended by the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (Kamunge, Report) has seriously affected the provision of education in the entire country and more so the pastoralist communities (Abdi, 1999). Nonetheless, research evidence has persistently shown that nomads are responsive to, and are indeed demanding for, education that is sensitive to their needs, aspiration and culture, from Sudan and Eritrea (Ismail, 2002), Nigeria (Tahir, 1998; Ezeomah, 1990; Carr-Hill and Peart 2005), United Kingdom (Bakari, 2000) and Mongolia (Kratli, 2001).

2.7 Theoretical Framework

This researcher used context evaluation, input evaluation, process evaluation, and product evaluation (CIPP). The CIPP model was formulated by Stufflebeam (1960) and his colleagues to show how evaluation could contribute to the decision-making process in program management. CIPP is an acronym for the four types of educational evaluation included in the model: Context evaluation, input evaluation, process evaluation, and product evaluation. Each type of evaluation is tied to a different set of decisions that must be made in planning operating a program.

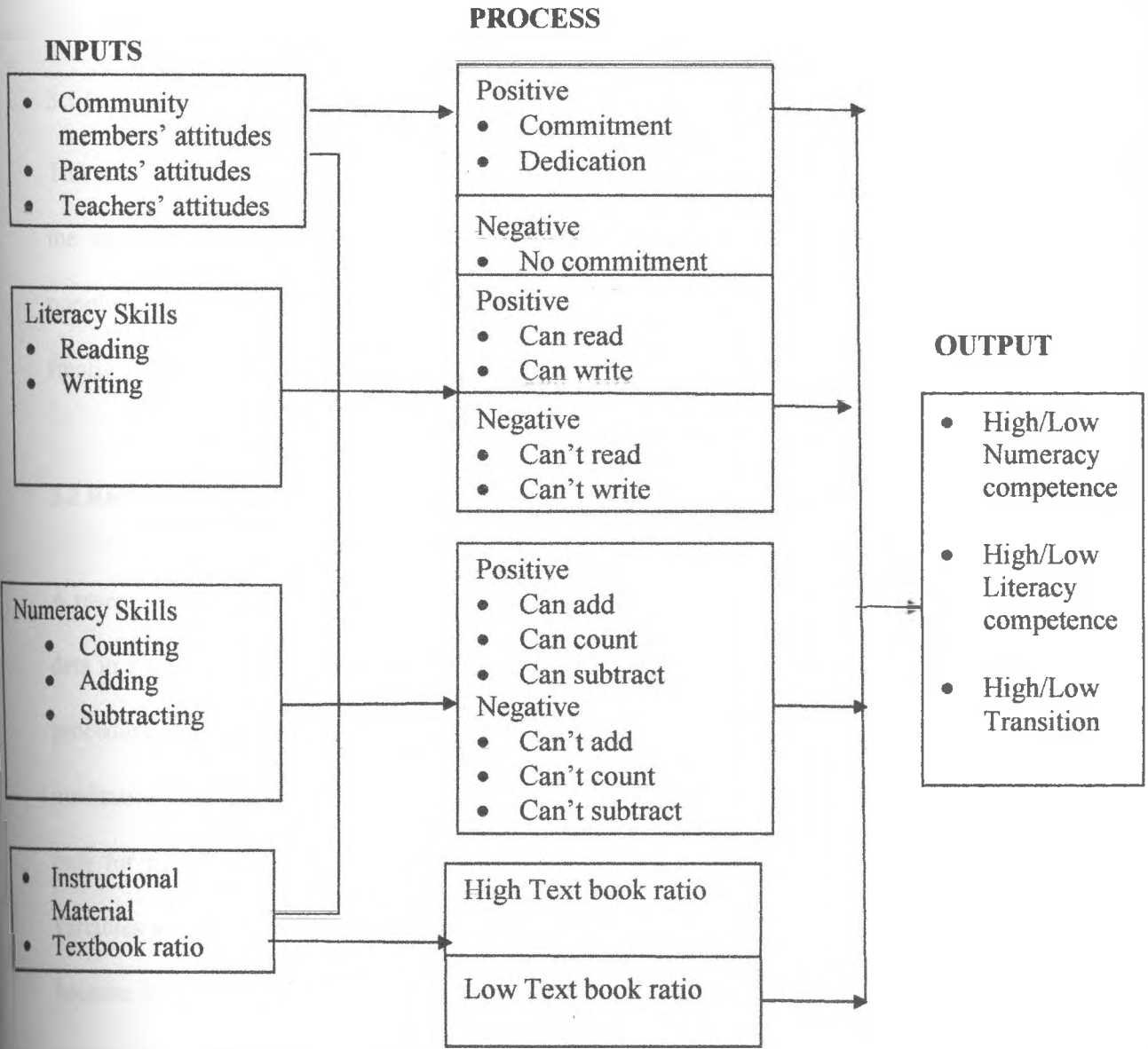
Stufflebeam's CIPP model is best suited for this study as it captures all the levels of evaluation that the research is hoping to achieve. With regard to the context evaluation, the researcher was in a position to identify the needs in the mobile schools programme in Wajir-Bor division. The input evaluation stage on the other hand aided the researcher in identification of the investments/resources that were needed to ensure the mobile schools were achieving their objectives. The process evaluation stage is where the researcher concentrated on how the learning process was taking place. As the researcher collected data

through observation, she was still evaluating the process. Lastly, the researcher had to make a conclusion on whether the mobile schools have been effective or not. In the CIPP model, this was equivalent to the product evaluation stage which led the researcher to make recommendations based on the findings.

2.8 Conceptual framework

In the conceptual framework (Figure 1) the product which is represented by more transition of learners into primary schools, more literacy and better numeracy and communication skills is dependent on not only the input by stakeholders on mobile schools, but also on the attitude of the teachers, parents and the entire community towards mobile schooling during the learning process. This conceptual framework fits the CIPP model as formulated by Stufflebeam (1960).

Figure 1: Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the procedure the researcher used in the study to collect and analyze the data from the field. The chapter consists of the following areas; research design, population, sample size and sampling procedure, instrumentation, validity and reliability and finally the procedure used in collecting and analyzing data.

3.2 Research Design

A research design is described as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure (Orodho, 2005). This study employed a survey research design which utilized both qualitative and quantitative approaches. Descriptive studies of the survey nature are used not only for the purpose of description but also for the determination of relationships between variables at the time of study (Babbie, 1992). The survey design had been chosen in this case because it enabled the study to cover a larger area thus the findings are applicable to a large area.

3.3 Target Population

This study was conducted in Wajir district of North Eastern Province. This district was purposefully chosen because the units of observation had the required characteristics, (Mugenda and Mugenda, 2003). It had the highest number of established mobile schools; therefore the data collected highly represent the targeted population. In 2009 Mobile pre-

schools had a total population of 284, out of whom 160 were male and 124 were female, (Expanding Educational Opportunities in ASAL, MOE February, 2009). Currently, the district has eight mobile schools found in two divisions namely Wajir-Bor and Griftu. Wajir-Bor division has five of the mobile schools and all were included in the study, while the remaining three are in Griftu division, where the pilot testing was done. These mobile pre-schools are characterized by a number of learners and at least two teachers who accompanied the families as they moved in search of pasture. The study targeted pre-school children (60), parents (30), head teachers (5) and teachers of mobile schools (10) since they are all stakeholders in pre-school education in the mobile schools in Wajir district.

3.4 Sample and Sampling Technique

Wajir district has eight mobile schools found in two divisions namely Wajir Bor and Griftu. Wajir-Bor division has five of the mobile schools while the remaining three are in Griftu Division. The researcher purposefully sampled Wajir-Bor division for the study because it allowed the researcher to use the case which had the required information with respect to the objectives of the study, (Mugenda and Mugenda 2003). The schools were well established since they were the first to be piloted by GOK/UNICEF in 2002. All the head teachers and teachers in the sampled schools were included in the study. The same was done for the District Education Officer, two Area Education Officers and the chiefs. Simple random sampling was used for 30 parents and 10 village elders. Thirty children were randomly sampled for observation on literacy and numeracy competence. Another thirty were randomly sampled for interview. According to Gay (1992) in Mugenda and Mugenda (2003), 10% of the population is enough for descriptive study. The study consisted of the following groups of respondents which constituted the sample size:

i) 30 children for interview and

ii) 30 children for observation.

iii) 10 Pre-school teachers of the sampled mobile schools,

iv) 5 head teachers of the sampled mobile schools

v) The District Education Officer of Wajir District,

vi) Two Area Education Officers,

vii) 30 parents of pupils in the sampled mobile schools,

viii) 10 village elders from villages where the schools sampled are situated,

ix) 5 chiefs of the 5 locations where the schools sampled are located,

3.5 Instruments

According to Mugenda and Mugenda (1999), the most commonly used instruments in social science research are: questionnaires, interview schedules, observation schedules and standardized tests. The study used questionnaires for the head teachers, teachers, Area Education Officer and District Education Officer. Interview schedules were for parents, chiefs and village elders while observation schedules were used on the children.

3.5.1 Questionnaires

Both open-ended and closed-ended questionnaires were used in this study. These questionnaires were divided in two parts: the first part was concerned with the general information of the respondents while the second part contained detailed information on the effectiveness of mobile schools in Wajir District. Questionnaire schedules were prepared in advance for administration to the various respondents i.e. the pre-school teachers, the head teachers of the respective schools in the sample, the DEO and the AEO of study area. The questionnaires contained items meant to elicit information on the attitudes of these respondents towards mobile schooling and also their perception on the effectiveness of mobile pre-schools in the region. They also aimed at gathering information concerning the

transition trends to primary schools. The questionnaire normally has the advantage of enabling the respondent have more confidence in giving responses without the fear of being known, since they are not required to give their names unless otherwise. It also saves a lot of time unlike of the other data collection instruments (Mugenda and Mugenda, 1999).

3.5.2 Interviews

Interview schedules were prepared in advance and were administered on the sampled parents, children, village elders and the chiefs. Each schedule consisted of two sections: A and B. Section A sought for respondents' background information while section B consisted of items that address the respondents' views on the effectiveness of the mobile schools in the area. They were also used to elicit information on the attitudes of the various respondents towards mobile schools. Interview schedules gave in-depth details since they allowed the researcher to seek clarification in cases where they did not understand a given concept, something one cannot do in the case of a questionnaire, as indicated by Orodho (2005). An interview schedule is a set of questions that the interviewer asks when interviewing. An interview schedule makes it possible to obtain data to meet specific objectives of the study, (Mugenda and Mugenda, 1999).

Interviews also allowed the researcher to reach the illiterate and semi-illiterate people in the community as the interviews were administered face to face hence the respondents were not required to write. The schedules consisted of both open and closed ended items (Appendices V, VI, VII and VIII). The researcher conducted the interviews herself on scheduled dates using the interview schedule as the guide.

3.5.3 Observation

Prior to the data collection process, observation schedules were prepared to enable the researcher gather information concerning the effectiveness of the mobile schools. The researcher employed participant observation in that she was actively involved in the learning process. The schedule was also divided into two sections A and B. Section A sought the background information of the school and section B sought the information on how mobile schools met the literacy and numeracy competencies of pre-schoolers, and how adequate and relevant the teaching and learning materials were. Whenever observations were made, they were filled in the already prepared schedules for analysis. Observation, as a data collection instrument, is advantageous in that the data collected is first hand - it is not a report from a third party as indicated by Borg and Gall (1997).

3.6 Validity and Reliability of Research Instruments

3.6.1 Validity

Validity is establishing whether the instrument content is measuring what it is supposed to measure (Orodho, 2005; Mugenda and Mugenda, 1999). For the purposes of this study, the researcher employed the expertise of two supervisors who were requested to assess the relevance of the content used in the instrument. This was in line with Borg and Gall (1997) who suggest that an expert can be consulted for validation of the content of the research instrument.

The supervisors examined the four questionnaires (Appendices I, II, III and IV), four interview schedules (Appendices V, VI, VII and VIII) and the two observation schedules (Appendices IX and X) individually and provided feedback. The comments of the supersvisors were incorporated into the final instruments to improve their content validity.

The researcher employed triangulation of the instruments (questionnaire, interview and observation schedule) to ascertain internal validity.

3.6.2 Reliability

According to Best (1998), reliability is the degree of consistency a given instrument demonstrates when it is used to measure a particular phenomena. The test-retest technique was used to establish the reliability of the instruments. The developed instruments were given to a few identical subjects within the pilot study group (not included in the main study). The responses were scored manually. The same instruments were administered to the same group after one week. The responses were scored manually; a comparison between the two scores was made. A Pearson's product moment formula for the test-retest technique was used to compute the correlation coefficient in order to establish the extent to which the instruments were consistent in eliciting the same responses every time the instruments is administered, Orodho (2005). The pilot instruments were then discussed with the two supervisors after which the results of the discussions were used to revise and modify the instruments.

3.7 Data Collection Procedure

Authority to conduct the research was obtained from Ministry of Education, District Commissioner (DC) and District Education Officer (DEO), Wajir before commencing the study. During the initial visit, the researcher explained the purpose of the study to the AEO, head teachers and teachers. The researcher issued the questionnaires to the DEO and two AEOs in their respective places of work. The questionnaires were administered by direct method which involved the distribution of questionnaires directly to the respondents and the instructions were read out clearly and clarification made by the researcher. The respondents were given one week

to fill the questionnaires, but they however did not complete in the one week period and were hence given one more week.

Dealing with nomadic pastoralists, the researcher and the focal point AEO travelled to Wajir Bor Division and traced for the mobile schools with the help of elders who knew the migration pattern. Here, the research instruments were administered to head teachers and teachers. They were assured that strict confidentiality would be maintained in dealing with their responses. The respondents were given a week to complete the questionnaires.

The researcher, with the help of the focal point AEO, arranged to meet the selected parents at their convenient places. The female parents were interviewed in their homesteads while the male parents preferred the school compound for the interviews. The village elders preferred to be interviewed under a big shade, where they usually settle family disputes and discussed migration patterns. It was a quiet and peaceful place far from the homestead. Interviews for the randomly selected children to establish their attitude towards mobile schooling were carried out in the mobile school class. The interview schedules contained simple questions for the children so as to elicit information with ease. Each schedule consisted of two sections: A and B. Section A sought for respondents' background information while section B consisted of items that addressed the effectiveness of mobile schools. The schedule consisted of both open and close ended items (see Appendix VIII).

Finally, with the observation schedules, the researcher commenced the observations on the children. The researcher was actively involved in the learning so as to make the children feel at ease and thus behave normally but she was mostly interested in finding out how effective the mobile schooling has been with regard to pre-school achievement levels. Observation was done on numeracy and literacy skills.

3.8 Data Analysis

The study generated both qualitative and quantitative data. Because of its nature, the data was analyzed using descriptive techniques. In descriptive survey, the study involved a variety of descriptive and inferential statistics. The study used frequencies and percentages because they easily communicated the research findings to the majority of the respondents (Gay, 1992). Frequencies easily show the number of times a response occurs or the number of subjects in a given category. Percentages were used to compare the sub-groups that differ in proportion and size.

The open ended questionnaire items consisting of qualitative data were transcribed and then arranged according to the research question of the study. The qualitative data mainly came from the structured questionnaire items. The researched used content analysis to pull out the themes and taking exact words where necessary. This was coded and edited before being tabulated and analyzed using frequencies and percentages. The respondents included 1 DEO, 2 AEOs, 10 pre-school teachers and 5 head teachers. The questionnaires were administered to all these respondents, who later returned their dully filled questionnaires. This implies that the return rate was 100%.

Information collected through interview schedules were analyzed by tallying responses and calculating the frequencies in percentages using a calculator. The respondents included 30 parents, 10 elders, 5 chiefs and 30 children, all from nomadic pastoralist community and the children in the mobile schools of Wajir Bor division.

The data collected using the observation schedules were coded and analyzed according to the various observations made in the five mobile schools. Based on a scale, the raw data was

coded, tallied and presented in form of frequencies and percentages. The main aim was to establish the extent the mobile school programme met the literacy and numeracy competency of the learners. The respondents were thirty children, six from each mobile school.

In coding, the items were scored on a three-point likert scale, very good (5), good (4) and fair (3). The child that was rated by the researcher as very good meant that the child was able to perform the prescribed tasks without difficulty. A child rated good performed the task with a few difficulties, while the child rated fair made attempts but was not able to perform. Analysis involved organization of the data into frequency distribution according to the respective percentages (proportions). Frequency distribution tables were particularly constructed for demographic variables such as age and sex.

Finally the results from all these instruments were presented in tables and graphs, accompanied by appropriate descriptions and discussions. Personal opinions were analyzed as guided by the study whereby they were narrated and quoted where appropriate, and were incorporated into understanding of the findings of the study (Orodho, 2005).

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the interpretation and discussion on research findings on the effectiveness of mobile pre-school education in Wajir District. The study sought responses to the following research questions.

1. What are the attitudes of nomadic communities in Wajir district towards mobile schools?
2. To what extent are the mobile school programmes meeting the literacy competency of the pre-schoolers?
3. To what extent are the mobile school programmes meeting the numeracy competency of the pre-schoolers?
4. How have mobile schools influenced the transition of Pre-schoolers to primary schools in Wajir district?
5. How adequate and relevant are the teaching and learning materials used in mobile schools

4.2 Attitude of nomadic pastoralist communities in Wajir district towards mobile schools

Table 4.1 gives information on school enrolment from data that was collected from 5 mobile schools. This data shows that children's enrollment has been rising such that between 2007 and 2010 it had increased from 118 to 239 pupils. Over the period of four years enrollment in the mobile schools sampled had grown

Table 4.1: School Enrolment from 2007/08 to 2010 in Wajir Bor Division

School	BOYS			GIRLS			TOTAL		
	2010	2009	2007/8	2010	2009	2007/8	2010	2009	2007/8
Guled Deere	32	22	15	27	20	10	59	42	25
Gerile	35	20	18	20	19	12	55	39	30
Wajir Bor A	30	14	10	15	13	7	45	27	17
Wajir Bor B	20	17	16	18	14	13	38	31	19
Aqaal Aar	22	20	17	20	14	10	42	34	27
Total	**139**	**93**	**76**	**100**	**80**	**52**	**239**	**173**	**118**

Table 4.1 indicates that there is an increase in enrolment in mobile schools, which suggests that the trend has been on the increase because the parents were willing to take their children to the mobile schools; community has embraced mobile schools by the rate of expansion and enrolment as shown. This is in line with the Kenya Education Sector Support Programme (KESSP, 2008) across all the investment programmes and specifically under the investment programme on Expanding Education Opportunities in Arid and Semi-Arid Lands (ASAL).

The data on table 4.2 concurs with Uwezo Kenya (2010) findings, over three quarters of eligible children attend pre-school in North Eastern, Wajir (86%) post the best enrollment level. The increment in enrolment in the 5 mobile schools in Wajir Bor could also be attributed to the time the season the research was carried out.

The research was done during the rainy season when the entire households were settled around the water point. During this season, pastoralists have less stress and focus on education and other community development issues. As one of the teacher said;

Enrolment depends on the season of the year. This is because being pastoralists families are always migrating looking for water and green pastures. When the season is dry they move away, hence low enrollment and when wet, they settle hence more children will attend.

Table 4.2 shows the number of households served by the mobile schools.

Table 4.2: Increase in Households

School	2007/2008	2009	2010
Guled Deere	10	15	17
Gerile	11	12	14
Wajir Bor A	9	11	16
Waji Bor B	9	10	14
Aqaal Aar	10	4	18
Total	49	52	79

The results on Table 4.2 implies that the number of children enrolled in mobile schools depend on the number of nomadic community households in the settlement areas. Mwaura (2005) supports the idea that ECD programme have expanded through the support from household and communities. Hussein (1999) had a similar idea that mobile schools have been well received by beneficiary community of Wajir who are happy that their children are receiving basic education, which is suited to their nomadic lifestyle and integrated with their cultural values.

Table 4.2 shows that the trend observed also revealed that mobile schools motivate nomadic pastoralists communities in Wajir Bor to bring their children to the school because mobile school give equal opportunity like other regular schools For instance, one of the head teachers in Wajir Bor A had the following to say;

"The parents who were sensitized on the importance of education were requesting for more schools to be established in Wajir Bor Division."

This was also echoed by the Education Officer in charge of mobile schools who stated that due to demand for more mobile schools, the number has increased from the initial two to five. He also shared with the researcher the District Education Board minutes approving three more mobile schools within the same division.

The positive attitudes of the nomadic pastoralists towards education in Wajir Bor division are in line with Al Haji (2001) who found out that mobile education as an alternative approach to education enable nomadic children access to education.

However during the interview with the elders and parents, the researcher found out that as drought intensified, enrolment decreased since families split as each family went its way in search of pasture and water. The challenge was which family gets to go with the mobile school. This was so especially in Wajir Bor A. However, in Aqaal Aar, the families resolved to stick together and thus the mobile school survived. Their only lament was that they could not move with it much farther towards areas with greener pastures. It is important to point out that the pattern of movement in Aqaal Aar and Wajir Bor A was different. For instance, one of the elders said;

"In Wajir Bor A as drought intensified communities moved farther and farther away from Wajir Bor Division and eventually crossed the border into Somalia."

The Area Education Officer in charge of mobile schools had similar sentiments. He commented that,

"This meant that they could not be followed for supervision and/or assistance."

In Aqaal Aar on the other hand, as drought intensified communities moved closer to Aqaal Aar town settlement, where water and relief food was more accessible. Similarly, Akaranga (1997) states that;

> *"Nomadic pastoralists face unique hardships because they are exposed to long drought, famine and food insecurity which makes survival difficult. Unless mothers and children receive well targeted and sustainable assistance probably including mobile services in health, education and literacy and water provision, their situation is unlikely to improve in the near future."*

Table 4.3 shows that 60% (n= 3) of the head teachers reported that the children attend school often while 40% (n=2) reported that children attend schools sometimes.

Table 4.3: Frequency of pre-schoolers attendance in mobile schools

	Head teachers' Response		Teachers' response	
Response	**Frequency**	**%**	**Frequency**	**%**
Often	3	60	5	50
Sometimes	2	40	3	30
Rarely	-	-	2	20
Total	5	100	10	100

The table suggests that there was good attendance in mobile schools; this may be attributed to the distance of the school. Mobile school was just in nomadic village, compared to long distance walks from home to regular school. Another reason could be as a result of the dedication of the teachers to the teaching profession, a non-antagonistic understanding of the culture of the nomads and their way of life plays a big role in retaining children in school. For instance, one teacher in Wajir Bor A said that;

> *"As the timetable in the mobile schools has been drawn for seven days of the week, the teachers have no resting day. There are also no end-of-term holidays. The reason was to enhance accelerated learning in the schools."*

After finding out the trend of enrolment and attendance from the teachers and the head teachers of the mobile school, the researcher's attention shifted to how often the children attended the mobile school. When asked to comment on their school attendance, responses obtained from the children interview schedule indicate that 93% (n= 56) of the children reported that they attend school often while 7% (n= 4) reported that they attend school sometimes (figures 4 and 5).

Table 4.4: Children's responses on attendance

Response	Frequency	%
Often	56	93
Sometimes	4	7
Total	60	100

The results suggest that parents have a positive attitude to mobile schools and hence support their children to attend the school regularly, causing attendance to be high. Philosophers Pestalozzi, Martin, Comenius and Roseau had a similar idea that parents' efforts contribute to a child's presence in pre-school, to enable them grow holistically and form firm foundation for their later schooling to higher level. However, the study revealed that the 7% (n= 4) children who attended sometimes reported that their parents depended on them to undertake household tasks.

Another reason could be the flexibility of the time table, which suits the nomadic pastoralist communities. In Guled Deere mobile school, for example, the researcher arrived mid-morning and the attendance was almost 100 % (n=57). It is worth noting that it is the community which plans the time table.

Table 4.5 shows that 63% (n= 38) of the children reported that they would like to be in a school where they move from one place to another or mobile school, while 37% (n= 22) indicated that they would like to be in a regular school.

Table 4.5: Children's response on school location mobile or fixed

Years	Response	Frequency	%
5 - 10	Fixed	11	37
Above 10	Mobile	19	63
Total		30	100

The results obtained from the children interview schedules revealed that most children preferred mobile schools because they did not want to be separated from their parents. This might be attributed to the attachment children have with their parents, especially the young ones. The young ones expressed preference for their mobile teacher, may be because they were familiar with them, but the older ones preferred regular schools, so that they could continue with their education.

The researcher probed further and asked why they liked the mobile school. When asked to list what they liked learning most in school, majority 73% (n=22) of the respondents reported that they liked Mathematics, 63% (n=19) reported that they liked reading, 60% (n=18) listed writing, 30% (n=9) reported that they liked English, while 3% (n=1) reported that they liked Kiswahili, as tabulated in table 4.6.

Table 4.6: Children's subject preference in school

Response	Frequency	%
Kiswahili	1	3
English	9	30
Writing	18	60
Reading	19	63
Mathematics	22	73

This suggests that children are motivated being in mobile schools. The results indicated that they liked mathematics more than other subjects and liked Kiswahili least. This could be because they used basic mathematics in their daily routines and rarely used Kiswahili, because they mostly communicated using the language of the catchment area, which is Somali.

To find out whether all the children had access to the mobile school, the researcher asked if the children had other siblings who were not attending the classes. Majority of the children, 93% (n=56) reported that they had other siblings in mobile school, while 7% (n=4) reported that they did not have any other siblings in the mobile schools.

Figure 2: Presence of other Siblings in the pre-school

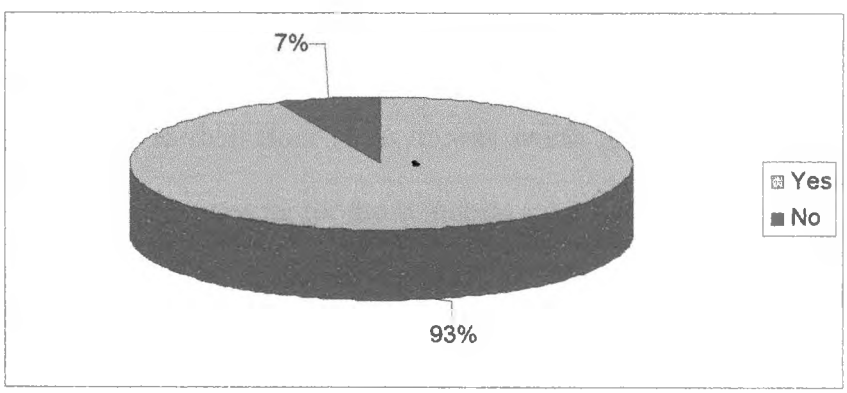


Figure 2 suggests that the respondents had siblings who have either attended or enrolled in the mobile schools. It also implies the schools were easy to access, because they were within reach, which is in line with mobile schools' objective to reach the hard to reach areas in the country. Similar idea is supported by the Convention on the Rights of the Child (CRC, 1989) that education is a right and every child is entitled to quality early childhood education, whether done in a formal setting or an informal setting. According to UNICEF (1991), mobile school initiative aims to address the inadequate capacity at national and district levels to conceptualize alternative approach for hard-to-reach children.

The responses obtained from the five head teachers of Wajir Bor mobile schools indicated that the community had a positive attitude towards mobile schools. All the five head teachers reported that the community appreciated the programme because it educated their children. For instance, the head teacher of Aqaal Aar said that the GOK and other partners such as UNICEF, made mobile education free, just like FPE; hence the nomadic communities are motivated to bring their children to school. As one head teacher said that, *"Mobile schools are just like Free Primary Education (FPE)."*

The responses by the ten teachers' from five mobile schools also indicated that the community had a positive attitude towards mobile schools. The teachers indicated that the community appreciated the programme because it helped to educate their children and it had brought education closer to their door steps. It was worth noting that the teachers reported that the parents were even requesting for more mobile schools.

The Education officer in charge of mobile schools said that,

> *"The mobile schools have opened eyes for many young children who would not have had a chance to access education in any other way as the nomadic way of life makes it hard to access secular education."*

The DEO had a positive attitude towards the mobile schools, he said they helped to reduce illiteracy in the nomadic pastoralist communities, he also added that,

> *"we also encourage such ventures to help the Government ensure everyone gets at least basic education."*

The evidence of parents' positive attitude towards mobile school manifested through the expansion and increased enrollment are in line with objectives of starting a mobile school. Establishment of mobile schools was a strategy to increase access to education by the children of pastoral communities in ASALs by MOE, in response to the attainment of EFA goals, of increasing enrolment through accessibility by 75% by 2015. Kenya, also being a signatory to the international conventions of the Children Rights Act 2001 and Millennium Development Goals, had to honour her commitments to achieve one of the mobile school objective and government expectations.

Table 4.7 shows that 40% (n=12) of the parents rated mobile schools as very good, 40% (n=12) rated them as good while 20% (n=20) rated them as fair. When the researcher asked the elders to compare the mobile schools to the regular schools, 40% (n=4) rated them as very good, 40% (n=4) rated them as good while only 20% (n= 2) did rate them as fair. The chiefs rated them as 40% (n=2) very good, 40% (n=2) rated them as good while 20% (n= 1) rated them as fair.

Table 4.7: Comparison between the mobile schools to regular schools

Response	Parents		Elders		Chiefs	
	Frequency	%	Frequency	%	Frequency	%
Very good	12	40	4	40	2	40
Good	12	40	4	40	2	40
Fair	6	20	2	20	1	20
Total	30	100	10	100	5	100

The responses show the parents' positive attitude towards mobile schools, when asked to compare the mobile schools to regular schools. The elders' rating implied that they preferred the mobile schools to the regular schools. This was also the case with the area chiefs. According to the chiefs, the community has been expressing support for the mobiles schools. One of the chiefs quoted that,

> *''In the past the community was forced by the chief to settle near schools so that the children could attend school. This was now not necessary. The community is happy because they can move with their animals and still have their children learning ''* (figures 6 and 7).

The results from Table 4.7 are also an indicator that there is now stability in the community and the people are moving on with their own programme. As said by one of the elders,

> *''Mobile schools have kept the community stable. Before people were moving haphazardly from one place to another but the school has kept them together.''*

The nomadic pastoralists had a positive attitude towards formal education and were willing to acquire it as indicated on Table 4.8. The idea is similar with Carr-Hill (2005) that the education system in Kenya is structured and demand driven, and that classrooms are fixed and the timing and location are inflexible. The mobile school initiative, however takes into consideration the mobile lifestyle of nomadic communities.

On the attitude of the nomadic pastoralists towards the mobile school, it was gathered from the elders, chiefs, parents, teachers, head teachers and the children from the mobile schools that the community had a positive attitude towards the mobile school programmes in Wajir Bor Division. Attitude plays an important role in enabling people access what they need, hence their attitude towards mobile schools had enabled the parents to send their children to the mobile school and also the willingness of the children to participate in them, and thus acquire education. The positive attitude of nomadic pastoralist in Wajir agrees with Asuka (2002) who found out that nomadic pastoralists had a positive attitude towards education which was fitting to their lifestyle.

Table 4.8 shows the community's attitude towards mobile schools. The researcher found out that although majority of the community had a positive attitude, 20% (n=6) of parents, 20% (n=2) of elders and 20% (n=1) of chiefs had a negative attitude towards mobile schools as shown in Table 4.8.

Table 4.8: Community attitude towards the mobile schools

Response	Frequency	%
Parents	6	20
Elders	2	20
Chiefs	1	10

Table 4.8 shows that some of the nomadic communities were not satisfied with mobile schools, when asked to compare the mobile school with regular school, they said it was fair.

A Dugsi teacher who is also a member of the community said that,

> *"Mobile schools compromise the Dugsi quality and Dugsi learning system".*

A village elder of Wajir Bor said that,

> *"I fear the school will attract more families to settle with us, thereby creating over-enrolment and more significantly competition over pasture and water resources".*

The Education Officer had a similar idea with the nomadic pastoralist community and said that,

> *"Families cluster together in one area to access education and thereby deplete the little pasture of the locality".*

One parent said that,

> *We expected to get special attention in terms of access to relief food, water and medical kit; we also expected children to get food under the school feeding programme.*

Another parent argued that,

> *This is a school like any other school, children should get school feeding programme, especially in the drought time for them to stay in school and learn better.*

The Education officer in charge of mobile schools shared similar idea with the researcher that in 2002 during the pilot testing of mobile-school programme in the ASAL districts, such as, Ijara, Wajir, schools benefitted from the GOK/WFP school feeding programme. However, due to poor infrastructure and nomadic life style of movement, the school feeding programme did not last.

Also the chief agreed with the parents that extreme drought at the time poses a threat to the progress of the mobile schools forcing temporary closure of the schools until the situation improves. One of the elders said that,

> *The intended mobility of the school does not function when the nomads dispersed into small family groups during the drought. This makes it impossible to continue with the classes.*

Similar idea was supported by Tahir (1998) that when the nomads dispersed into small family groups during the wet season, it did not prove possible to continue classes with face to face model used.

The importance of school feeding programme in mobile schools is also supported by Carr-Hill and Peart (2005) who stated that school feeding programmes provide a huge incentive in bringing children to school thereby increasing enrolment, attendance and participation in schools. In areas of low food security, poor families are not able to provide a balanced meal for their children. The occurrence of short term hunger results in a lack of concentration at school, ultimately leading to poor school performance.

Similar idea was supported by World Food Programme (2000) which shows that the school feeding programme leads to significant improvement in school performance. This is because it ensures regular attendance to school, hence more time to spend in class work and assignment. The provision of the midday meal relieves short term hunger and increase the attention span in the pupils.

4.3 Extent mobile school programmes meet literacy competency of pre-schoolers

Table 4.9 shows the different levels of children reading the alphabet. In relation to reading the alphabet, 63% (n= 19) of the children were rated as very good, meaning that the child was able to perform the prescribed task without difficulties and it also indicated that the child was able to read the alphabet A to Z. Of the respondents 33% (n=11) were rated good meaning that they could read the alphabets with difficulties and required some assistance from the researcher. Only one respondent was rated as fair, meaning that an attempt was made but was not able to read, however, he was able to write his name.

Table 4.9: Reading the alphabet

Response	Frequency	%
Very good	19	63
Good	10	33
Fair	1	4
Total	30	100

This suggests that most of the children in the pre-school could read the alphabet. Ability to name and identify alphabet indicates a child's preliminary pre-reading skills and also ability to identify and name the letters is an indicator of knowledge of English alphabet and is a good school readiness indicator.

Table 4.10 shows that 57% (n=17) of the respondents were rated very good at score 5. It indicted that children were able to read five simple words such as *boy, girl, cow, goat, man, woman* and comprehend the meaning, while 43 % (n=13) were rated good at score 4 in the ability to read simple words. For instance, in Aqaal Aar, children were unable to read *fork, fish* and in Wajir Bor, some were not able to read *cow, goat*. It indicated that the children read with difficulty and were not able to comprehend the meaning at least 3 words, whereby the researcher assisted. Also, children were rated according to the ability to write five simple words such as *book, pen, come, go, sit*. If the child wrote all the five words correctly, he or she scored 5 and rated as very good, and if the child wrote three words correctly he or she scored 4 and rated good. If the child made attempt and wrote one or two words, he or she scored 3 and rated fair. The results indicated that 53% (n=16) of the children were rated as very good while 47% (n=14) were rated good in writing at least five simple words.

Table 4.10: Language and Literacy competencies of pre-school children

Task	Very good		Good		Fair	
Rating children's ability	**5**		**4**		**3**	
	Frequency	%	Frequency	%	Frequency	%
Tell short story using language of catchment area	17	57	13	43	-	-
Write five simple words	16	53	14	47	-	-
Writing own name	16	53	14	47	-	-
Reading five simple words	17	57	13	43	-	-

As for language competencies, 53% (n=16) of the children were rated as very good while 47% (n=14) were rated as good in writing their own full name. This implied that those children rated very good were able to write their names, for example, *'Ali Abdi'* or *'Hassan Ali'*; while those rated good and scored 4 were able to write their first name only, for example '*Ali*'. Those who are rated fair (3) made an attempt.

A case in Aqaal-Ar mobile school, a 10 year old boy was observed by the researcher who could write his name *Abass*, and when she asked him to read the alphabet he made attempts and got fair scores. The boy had just joined the mobile school, and the teacher said that the boy was enthusiastic and hard working. The researcher observed that there was heightened self-esteem among children who were in the mobile school and were proud of their learning. This might be another reason why Abass could write his name, he completed Chapter 114 of the Holy Quran and advanced in memorization of Holy Quran, which begins from mastering the vowels.

Figure 3: A mobile school blackboard

The researcher had employed participative observation, in that she was actively involved in the learning progress. The researcher probed further to ascertain whether the children understood the meaning of what they were reading. She found that they did not understand words like *fish, fork.* The study revealed that the curriculum was not relevant to the needs of the nomadic pastoralists. The literacy competence generated from Table 4.10 suggests that the mobile schools are effective in meeting the literacy competency in accordance to the KIE (2008) syllabus.

This study concurs with Kenya Human Rights Commission (KHRC, 2000) that there is need to question the sort of education that is given to the nomads and its purpose. The Commission complains that the curriculum used by the nomads is designed for urban and agricultural communities and no way does it take into account the needs and wants of the

pastoral people. The study also agreed with Owiny (1999) that 'modern education' has been perceived by the nomadic pastoralists as usually promoting the values and practices of dominant cultural beliefs rather than prioritizing their needs. Modern education has been perceived as a process of cultural alienation, (KHRC, 2000).

Table 4.11: Comparison between ages of the children and their performance

Response	Frequency	%	Score	Rating
5-7 Years	30	50	15	Good
8-10 Years	16	27	18	Very Good
Above 10 years	14	23	20	Very Good
Total	60	100		

Table 4.11 shows that 50% (n=30) of children were between ages 5 to 7 years; 27% (n=16) were between 8 and 10 years and 23% (n=14) were aged above 10 years. The ratings show that children aged between 5 to 7 years were rated good, the ones aged between 8 to 10 years rated very good and the ones above 10 years were also rated very good in reading five simple words and writing own name.

Trends observed indicated that children aged between 5-7 years scored good in reading at least five simple words and writing their names. Children aged between 8-10 years scored very good which was a total of 19 marks in all language competencies. Children aged above 10 years scored very good which was a total of 20 marks in all language competencies. In total they scored 15 in all language competencies. This suggested that there were children in pre-school who were above 10 years. This may be attributed to the nomadic lifestyles on communities which influence age trend of the children.

Comparison between age and performance on literacy and language competence shown on Table 4.11 suggests that age played a role. Younger children had lower rating than the older counterparts. This could be as a result of the teacher using the Dugsi approach, whereby a prefect or older boys assist the teacher to teach the younger ones, which gives the older boys the opportunity to revise thoroughly and perfect their literacy competence while deputizing for the teacher and doing peer tutoring. In Wajir Bor B, the researcher observed one of the older boys aged 12 years deputizing for the teacher in teaching simple words to other children, while peer tutoring.

According to Table 4.11, the children of nomadic pastoralists in Wajir district attend ECDE or pre-school at the age of seven years and above. The service age category is age six to thirteen years in primary school while age four to five inclusive is pre-school age; but there were varied regional differences in the entry age with some joining at age eight or nine years. During the data collection, out of the thirty children observed 50% (n=15) of them were above seven years of age. Also, the study found that children at the mobile schools are those who had not had a chance to go to regular schools, hence this is not the expected age of children to be in ECDE centres. This concurs with Mwaura (2005) that the government of Kenya is keenly aware of the importance of investing in quality care and education for pre-school children.

The study revealed that Nomadic parents sent their children to Dugsi before going to school as seen in figure 10. Parents believed that this helped them to adjust better in school and they made faster progress as they already have the basic skills of reading and writing in Arabic script. This makes Dugsi the most popular alternative approach to learning for the pastoralist communities in Wajir. Dakar Framework for Action (2000) on Education for All (Goal 6) supports learning outcomes achieved by all, especially in literacy and numeracy.

Thus mobile schools programme based its implementation strategy on what might be called the Dugsi approach, which has a mobile teacher living with the family, or herding group of which they are a part, in just the same way that Quranic teacher would do. This programme meets the community's basic learning needs in the area of literacy and language, which are most crucial skills. The extent the mobile schools meet the literacy and language competency of nomadic children in Wajir Bor Divison agrees with Ekundayo (2000) who says that meeting basic learning needs is the purpose of Education for All (EFA). Basic learning needs are the essential learning tools, which include literacy, oral expression and basic learning content (knowledge, skills, attitude and values).

Table 4.12 shows how parents, elders and chiefs rated the literacy basic skills acquired in children since they started attending the mobile school. Sixty percent (60%) (n=18) of the parents rated their children's reading skills as very good, 37% (n=11) rated the skills as good and 3% (n=1) rated them as fair. The elders were also asked how they rated the children's readings skills and 50% (n=5) said the reading skills were very good, 40% (n=2) said the skills were good and 10% (n=1) said they were fair. The chiefs 40% (n=2) rated the reading skills as very good, 40% (n=2) as good and 20% (n=1) said the reading skills were fair.

Table 4.12 also shows the rating for writing skills, where 73% (n=22) of parents rated them as very good, 23% (n=7) as good and 4% (n=1) as fair. The elders rated the writing skills as 40% (n=4) said they were very good, 40% (n=4) rated them as good and 20% (n=1) said they were fair. When asked to rate the writing skills, 20% (n=1) rated them as very good, 40% (n=2) rated them as good and 20% (n=1) rated them as fair.

Table 4.12: Rating of Literacy Basic Skills

	Parents		Elders		Chiefs	
Response	**Frequency**	**%**	**Frequency**	**%**	**Frequency**	**%**
Reading Skills						
Very good	18	60	5	50	2	40
Good	11	37	4	40	2	40
Fair	1	3	1	10	1	20
Total	**30**	**100**	**10**	**100**	**5**	**100**
Writing Skills						
Very good	22	73	4	40	1	20
Good	7	23	4	40	2	40
Fair	1	4	2	20	1	20
Total	**30**	**100**	**10**	**100**	**5**	**100**

This suggests that the mobile school programmes have achieved the ECD objectives in meeting the literacy competency of the pre-schoolers. Language skills in ECD are categorized in oral, reading readiness and writing. By the end of the preschool cycle, children are expected to have acquired adequate level of proficiency that will enable them to fit primary school, (KIE ECD Syllabus, 2008).

From the study, the children's level of competences is evidenced by the ability to:

(i) Tell simple short stories using the language of catchment areas,

(ii) Write simple three letter words,

(iii) Read at least three words,

(iv) Write own name.

Based on the major findings of literacy and numeracy competence on the benefits of mobile schools one parent said that,

Children in mobile schools can write their names in the share of relief food and they do not need someone else to calculate their share of relief food. They do the calculations themselves.

The above statement is also supported by Mwaura (2005) who notes that these early interventions not only improve the immediate well being of young children, but may manifest themselves at later stages in their lives with both social and economic benefits for the individual, his family and society.

4.4 Extent mobile school programmes meet numeracy competency of pre-schoolers

Mobile school children mathematics competences were observed and rated by the researcher in three (3) level rating scales. Children were rated as 'very good', 'good' or 'fair'. 'Very good' meant the child was able to perform the prescribed tasks without difficulties. A child rated 'good' if he or she performed the task with a few difficulties while the child rated 'fair' made attempts but was not able to perform and the scoring scale was very good 5, good 4 and fair 3, respectively. If a child got 10 answers correct, the researcher rated him or her as very good and gave a score of (5). If the child got 5, the researcher rated him or her as good and gave a score of (4). If the child got less than 4, the researcher rated him or her as fair with a score of (3).

Table 4.13: Mathematics Competencies for Children in Mobile Schools

Task	Very good		Good		Fair	
Rating child's ability	**5**		**4**		**3**	
	Frequency	**%**	**Frequency**	**%**	**Frequency**	**%**
Recognize number symbols 1 – 20	18	60	12	40	-	-
Counting	19	63	9	30	9	7
Arrange 3 objects from the heaviest to the lightest	17	57	13	43	-	-
Describe the daily school routine.	18	60	12	40	-	-
Put together and take away objects from a set not exceeding 9	18	60	12	40	-	-

Table 4.13 shows that 60% (n=18) of the children were able to recognize number symbol 1-20, and were rated as very good. In the area of counting the children were asked to count orally 1-20 and later the researcher used number cards to observe whether the children could recognize the numbers. Nineteen 63% (n=3) of the respondents were rated as very good, 30% (n= 9) were rated as good, while 7% (n= 2) were rated as fair. The children who could arrange 3 objects from the heaviest to the lightest were rated very good 57% (n=17), 40% (n=12) were rated good while 60% (n=18) rated very good in describing the daily school routine and putting together and taking away objects from a set not exceeding 9 (Table 4.13).

What is on Table 4.13 suggests that the numeracy competences have been effectively achieved by the majority of the children, implying that mobile schools are effective. The reason could be that after attending the classes in the afternoon, these children share together

what they have been taught, while they look after animals; and so are able to have more time for peer learning. For instance, one of the chiefs said that,

> *'I ask my son to count the herds in the evening, in English, which is one way to revise the school work'.*

Table 4.14: Rating of mathematics competences by teachers and Head teachers

Task	Teachers						Head teachers					
Rating child's ability	**Very good**		**Good**		**Fair**		**Very good**		**Good**		**Fair**	
	5		**4**		**3**		**5**		**4**		**3**	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Recognize number symbols 1 – 20	5	50	3	30	2	20	2	40	2	40	1	20
Counting numbers 1 – 20	5	50	5	50	-	-	3	60	2	40	-	-
Arrange 3 objects from the heaviest to the lightest	5	50	3	30	2	20	4	80	1	20	-	-
Describe the daily school routine	6	60	4	40	-	-	3	60	2	40	-	-
Put together and take away objects from a set not exceeding 9	6	60	2	20	2	20	3	60	2	40	-	-

Table 4.14 shows the ratings by five head teachers and ten teachers on children's mathematics competences. From the questionnaires, 50% (n= 5) of the teachers rated the children's ability to recognize number symbols 1 to 20 as very good, 30% (n= 3) rated them as good while 20% (n=2) rated them as fair. Three (60%) of the head teachers rated the children's ability to count number 1-20 as very good and 40% (n=2) rated them as good. In arranging 3 objects from the heaviest to the lightest, 50% (n=5) of the teachers rated them as very good, 30% (n=3) rated them as good, while 20% (n=20) rated their ability as fair. The head teachers rated the children ability to describe the daily school routines as very good 60% (n=3) and good 40% (n=2). The children's ability to put together and take away objects from a set not exceeding 9 was rated as very good by 60% (n=60) of teachers and good by 40% (n=4) by the teachers. The respondents' rating by the teachers was based on the work done by the children in class while the rating by the head teachers was based on assessment forms.

The mathematical competence of nomadic pastoralist children in Wajir Bor mobile school is in agreement with the study of Kabiru, M. (1994) that preschool is crucial in the preparation of a child for later education. This implies that mobile schools were capable of enabling children gain mathematics competency needed for primary schooling.

The data generated from the Table suggests that mobile school children had acquired the ability to recognize numbers, symbols and value, application of mathematical concepts in life situations and exhibition of ability to solve mathematical problems. It further indicates that mobile schools were essential in making children acquire the basic numeracy skills.

The rating of mathematical competence by teachers and head teachers was in agreement with Table 4.6 where the researcher probed the children during the interview on what they liked

learning most in mobile school. A majority of the respondents 73% (n=22), said they liked mathematics. This might be attributed to the fact that mathematics is an integral part of nomadic lifestyle, whereby children learn to take stock of the animals at an early age.

In relation to mathematics competencies, children aged between 5-7 years scored good which was an average of 12 marks in all mathematics competencies. Children aged between 8-10 years scored good with an average of 18 marks in all mathematics competencies. Children aged above 10 years scored very good with an average of 19 marks in all mathematics competencies.

Table 4.15: Comparison between ages of the children and their performance

Age group	Frequency	%	Score	Rating
5-7 Years	30	50	12	Good
8-10 Years	16	27	18	Very Good
Above 10 years	14	23	19	Very Good
Total	**60**	**100**		

The study suggests that the children who were above 10 years scored the highest, followed by those between 8 and 10 years. Children below 7 years performed fairly with an average score of 12. This could be attributed to the nomadic communities' lifestyles of sending their children to Dugsi before school and also the fact that teachers gave more attention to older children so that the older children help the teacher to teach the younger ones.

Piaget (1980) supports that age plays a big role in learning. Children of age 5 – 7 years are in pre-operation stage. Age 7-12 years is the concrete operational stage. In this stage, children write logically and solve a lot of mathematical as well as scientific problems, as long as they

are presented in a concrete way. Children above 12 years are in formal operation stage. Here children can think abstractly and make hypothesis in absence of concrete presence.

Table 4.16 shows the rating by parents, elders and chiefs on the children's numeracy basic skills competences. The ratings revealed that 73% (n=22) of the parents said the children were very good in counting while 40% (n=4) of elders and 40% (n=2) of chiefs said the counting skills were good. In addition and subtraction from a set not exceeding 9, that 73% (n= 22) of the parents said the skills were very good while 40% (n= 4) of elders rated the skills as good and 20% (n=1) of chiefs rated the skills as fair.

Table 4.16: Rating of numeracy basic skills by parents, elders and chiefs

	Parents		Elders		Chiefs	
Response	**Frequency**	**%**	**Frequency**	**%**	**Frequency**	**%**
Counting 1- 20						
Very good	22	73	6	60	3	60
Good	8	37	4	40	2	40
Fair	-	-	-	-	-	-
Adding and subtracting from a set not exceeding 9						
Very good	22	73	5	40	2	40
Good	7	23	4	40	1	20
Fair	1	4	1	20	1	20

The data on Table 4.16 show that children have acquired basic skills in counting, adding and subtracting. This could be attributed to the fact that counting is integral part of the nomadic

lifestyle; because children learn early to take stock of the animals. One parent said nomadic children learn numeracy basic skills by,

> "*By counting how many animals have been bought or sold, given or received in dowry and how many have been born or died'.*

The findings of the data in Table 4.16 indicate that mobile schools have actually enabled nomadic pastoralist children acquire basic numeracy skills which are in line with the KIE ECD Syllabus (2008) which suggests that the acquisition and development of number classification and measurement concept skills in children start at an early age. By the end of pre-school cycle, a child is expected to have gained a certain level of the concept and skills that will allow him or her manage the primary school mathematics syllabus. It therefore, is important for these concepts and skills to be nurtured continuously through appropriate experience and exposure to relevant materials.

4.5 Influence of mobile schools in the transition of pre-schoolers to primary school

Table 4.17 shows that children's transition has been raising. The five schools reported that a total of 98 pupils had transited from mobile preschool to regular school class 1 - 3 (78 boys and 20 girls) between 2007 and 2010, achieving one of the objectives of mobile school; namely, to enable children in the mobile school programme to join the regular school to complete the primary school.

Table 4.17: Transition from mobile preschool to mobile class 3

School	Pre-Unit 2007				Class 1 2008				Class 2 2009				Class 3 2010			
	Boys	%	Girls	%	Boys	%	Girls	%	Boys	%	Girls	%	Boys	%	Girls	
Guled Deere	18	72	7	28	18	72	7	28	23	56	18	44	33	56	26	44
Gerile	19	63	11	37	19	63	11	37	24	62	15	38	36	65	19	35
Wajir Bor A	10	59	7	41	10	59	7	41	17	63	10	37	25	56	20	44
Waji Bor B	11	58	8	42	11	58	8	42	18	58	13	42	22	58	16	42
Aqual Aar	15	56	12	44	15	56	12	44	20	59	14	41	25	60	17	40
Total	**73**	**62**	**45**	**38**	**73**	**62**	**45**	**38**	**102**	**59**	**70**	**41**	**141**	**59**	**98**	**41**

The raising in transition shown in Table 4.17 indicates that the mobile schools have been welcomed by the beneficiaries, who are happy that their children are now able to receive basic education which is well suited to their nomadic life styles and integrated with their cultural values.

The idea of transition is in agreement with Tahir (1998) who states that,

> *The mobile school initiative aims at increasing access to education for all children over four years of age through the provision of culturally and religiously appropriate basic education. Otherwise the children will find it hard to access formal education, (p. 36-37)*

The findings support the Policy Guideline on Nomadic Education in Kenya (2010) that feeder schools will be established close to nomadic set ups, ECD and Std. 1 to 3 to enhance proximity to schools and also serve as catchment by boarding school. Higher entry level like standard III and over at enrolment will be considered for qualifying over-age children and thus learning accelerated.

Table 4.18 shows that the transition rate of children from mobile school to primary has been increasing.

Table 4.18: Transition from mobile schools to regular schools from 2007 to 2009

School	BOYS			GIRLS			TOTAL		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
Guled Deere	4	6	10	-	2	3	4	8	13
Gerile	3	3	7	-	-	-	3	3	7
Wajir Bor A	4	4	7	-	1	3	4	5	10
Wajir Bor B	0	5	5	-	3	2	-	8	7
Aqaal Aar	4	6	10	1	2	3	5	8	13
Total	15	24	39	1	8	11	16	32	50
Grand Total		**78**			**20**			**98**	

The data from Table 4.18 show that children transiting from the mobile school to regular schools are few compared to those transiting from preschool mobile to class three mobile. This could be attributed to the nature of nomadic communities which have strong family bonds that neither the parents nor the children like to be separated for long periods. One parent said,

> *"We nomadic pastoralist parents are usually very reluctant to relinquish any of our children's upbringing to people we do not know and trust or people whom we are not related and morally integrated".*

Table 4.19 shows the rating of performance level of pre-schoolers in mobile schools by the teachers and head teachers, with 50% (n=5) of the teachers rating the performance as very good, 30% (n=3) rating them as good while 20% (n=2) rated them as fair. The head teachers rated the performance as very good 60% (n=3), while 40% (n=2) rated them good.

Table 4.19: Performance level of preschoolers in the mobile schools

	Teachers		Head teachers	
Response	**Frequency**	**%**	**Frequency**	**%**
Very Good	5	50	3	60
Good	3	30	2	40
Fair	2	20	-	-
Total	**10**	**100**	**5**	**100**

According to the continuous assessment test records of the teachers, the children were rated very good. The head teacher also rated them very good using the report cards. This implied that children acquired the basic literacy and numeracy skills in mobile pre-schools.

In the interview with the head teacher of Dambas primary, it was revealed that mobile schools are interlinked with well-developed regular primary schools such as Dambas, Wajir Bor, Sarman, Arbahajan and Griftu. There was a system of support mobile schools by a nearby regular school, which implied that the teachers in mobile schools are able to get professional support as well as supplies. Equally, the regular schools were able to absorb the learners being weaned from the mobile school.

The researcher made an attempt to follow children who transited to regular school. She found some in Sarman primary, Wajir Bor primary and others in Dambas primary schools. The

admission register obtained from the schools showed that pupils were actually admitted to regular schools after either completion of lower primary class 3 or while in the lower primary.

It was also found that even schools that did not have mobile schools near them admitted children from other mobile schools. This could probably be due to the fact that nomadic pastoralists and families migrate; hence children from one area could be found in a school where there was no mobile school.

The results are in line with one of the objectives of the mobile school programmes which is to enable these children join the regular schools at class 3 or 4. The study further shows that mobile schools acted as feeder centres to the regular school, hence through them children are able to transit to regular school. This is in line with the government's expectation to increase access to education by 2015 to achieve EFA goal.

4.6 Adequacy and relevance of teaching and learning materials in mobile schools

The research question five was to find out whether there were adequate teaching and learning materials used by mobile school teachers. The basic items that are necessary for the mobile schools are as shown in Table 4.20.

Table 4.20: The basic items necessary to start a mobile school

1	First Aid Bay	16	Balls, skipping ropes
2	Pocket Board (Calico Material)	17	Pencil
3	Kiswahili Mufti – Pupils Bk. I	18	Sharpeners
4	Kiswahili Mufti – Teacher's Bk. I	19	Dustless chalk
5	English – Teacher's Bk I	20	Duster
6	Mathematics – Pupils Bk. I	21	Exercise books
7	Mathematics – Teacher Bk. I	22	Ball pens
8	Mathematics – Pupils Bk. I	23	Double canvas tent or huts
9	Mathematics – Teacher Bk. I	24	Canvas sheet

10	Social Studies – Pupils Bk. I	25	Canvas bag
11	Social Studies – Teacher Bk. I	26	Seating Mats
12	Science – Pupils Bk. I	27	Writing Pads
13	Science – Teacher Bk. I	28	Spring file
14	Admission Register	29	Envelopes
15	School Attendance Register	30	A Camel/donkey

Table 20 shows the mobile school kit as prescribed by GOK and UNICEF to achieve the goal of eradicating illiteracy in nomadic pastoralist communities. The MOE, through Expanding Educational Opportunities in ASAL (EEOA) Investment programme has disbursed Kshs. 45,259,141 for purchase of educational kits to mobile schools (KESSP, 2008) in attainment of EFA goals/MDG/Child rights, which state that every child has a right to basic education. The researcher observed that the mobile kit were very useful for both the teacher and the learners.

In line with teaching and learning materials, Onyango (2001) explains that material resources are those resource designed, modified and prepared to assist in teaching and learning – such resource include text books, reference books, teachers guides and charts.

Table 4.21: The mobile kits in the observed schools

School	Teaching/Learning materials Available	Quality
Guled Deere	• Had the tent for classroom	Good condition
	• Mats	Old and torn
	• Tent for teacher's house	Good condition
	• Canvas for Resource Centre	Good condition
	• Solar lamp	Good condition
	• Text books	Recommended by MOE
Gerile	• Text books for Maths, English, Science and Kiswahili	Recommended by MOE
	• Canvas for Resource Centre	Good condition
Wajir Bor A	• Had the tent for classroom	Good condition
	• Mats	Old and torn
	• Text books	Recommended by MOE
Wajir Bor B	• Had the tent for classroom	Good condition
	• Mats	Old and worn out
	• Solar lamp	Broken
	• Tent for Resource Centre	Good condition
	• Black board	Good condition
Aqaal Aar	• Did not have the tent for classroom	Children were sitting in the shade under a tree
	• Mats	Old and torn

The researcher observed five mobile schools to establish what they had in terms of mobile kits. Table 4.21 shows that the items supplied by the GoK and UNICEF to start a mobile school were available in the five mobile schools observed (figures 14 and 15). However, the

mats which the children were sitting on were old and torn. This was an indicator of lack of financial contribution from the nomadic communities. The researcher observed that in Aqaal Aar, children were sitting in the shade under a tree and not using the tent meant for classroom as shown in figure 13. The green canvas tent was the sign post for a mobile school.

During the interview, the children were asked a question on the availability of learning materials. Table 4.20 shows that half 50% (n=15) of the children had the relevant learning material, while another half (50% n=15) reported that they shared pencils and rubbers while only 5 reported that they did not have textbooks and exercise books.

Table 4.2 shows that children share learning materials.

Table 4.22: Learning Materials

Learning materials	Enough	Sharing	None
Text books	15	10	5
Exercise books	15	10	5
Pencils	15	15	0
Rubbers	15	15	0

The researcher observed that the teachers were not using locally available materials as learning aids. For instance, a teacher who was observed in Guled Deere taught Mathematics using the chalkboard and explained orally to the children. There was no demonstration and participation from the learners. However, in Gerile, the teacher used flash cards to teach the language; although it was a good attempt, the lesson could be more enjoyable using locally available materials (figure 12).

Table 4.23 shows that the average pupil book ratio for Math's and English in the five mobile schools was 1:3.

Table 4.23: Average pupil book ratio

Subject	Guleid Deere	Gerile	Aqaal Aar	Wajir Bor A	Wajir Bor B
Maths	1:3	1:3	1:3	1:3	1:3
English	1:3	1:3	1:3	1:3	1:3

The Table shows that texts books were being shared by the children. This is an indicator that the mobile schools had inadequate text books for Maths and English.

The researcher found that the sharing of textbooks inconvenienced children whenever homework was given, for instance for the boys who herded the cattle and wanted to do the homework while herding and the girls who looked after sheep and goats. This implies that the researcher disagrees with the MOE national policy on textbooks publications, procurement and supply of primary school which specifies that the average book pupil ratio to be 1:3.

The researcher observed that the variety of learning resources like teaching and learning aids are inadequate in the five mobile schools such as picture books, story books, Abacus, charts for languages and Mathematics. The researcher also observed that while the Government made efforts to supply the required mobile school supplies, these were not adequate and the consumables were not replenished, for instance, pencils and erasers were not enough and so were the exercise books. The evidence was also shown on Table 4.19 which gives the basic items necessary to start a mobile school. These are important ingredients to better performance and high transition rate. The researcher confirms that without learning aids,

children in nomadic environments might not understand what they are reading. Learning aids enhances and facilitates the learning of the pupil and grasping of difficult concepts.

The importance of teaching and learning material in a learning environment corresponds with Ayot (1984) that learning and teaching aids increase chance of greater perception, understanding, and retention and transition rate. This is in line with the learning of basic literacy and numeracy skills. Availability and use of instructional materials raised the quality of learning activities and boosts pupils achievements.

Table 4.24: Demographic information for teachers

Academic qualification	**Frequency**	**%**
Diploma in ECDE	2	20
KCPE	3	30
Teaching Experience		
1-5 years	5	50
6-10 years	2	20
Over 10 years	3	30
Marital Status		
Married	6	60
Single	4	40

Table 4.24 gives demographic information for teachers. The data was collected from a sample of 10 teachers who were all male. In relation to their different levels of education, the findings revealed that 50% (n=5) of the teachers had attained 'O' level education, 20% (n=2) had attained a diploma in ECDE while 30% (n=3) had attained the primary level of

education. In respect to their teaching experience, the Table indicates that 50% (n=5) of the respondents reported that they had been teaching for a period of between 1-5 years and 20% (n= 2) of the respondents have been teaching for a period of between 6-10 years. The remaining 30% (n=3) reported that they have been teaching for a period of over 10 years. The teachers' marital status indicates that 60% (n=3) of the head teachers were married while 40% (n=2) of them were single.

The researcher was interested in finding out the qualification of teachers because they are key inputs in the education system and constitute the locus of class or mobile school instructional activity and curriculum delivery. Table 4.24 shows that mobile schools were taught 80% (n=5) by ECD trained teachers and 20% (n=5) by untrained ECD teachers, whose methodology in handling multi-grade may be inadequate.

The data from demographic information on teaching experiences of mobile school teachers show that 50% (n=5) teachers stayed in the working station more than 5 years. However, the researcher found out that teachers who stayed longer in mobile schools were not using teaching/learning aids. This idea disagrees with Eshiwani (1993) who noted that teachers who stayed longer in a station can effectively allocate resources.

From the Table showing data on teachers' academic qualification, it can be seen that none of the 5 mobile school teachers were P1 trained. In 2004 during the pilot of mobile schools in Wajir Bor, the mobile schools were started by trained PI teachers, who were willing to be absorbed into mobile school project in Kenya ASAL districts such as Wajir Bor and Ijara.

The PI teachers were oriented on the mobile school approach to education, including the multi-grade teaching. The idea of qualified trained teachers agrees with those of Nyaga

(1997) and Ngau (2001) who stated that teachers' quality, competency and academic performance are determined by training and teaching experience. However, the researcher found that trained PI teachers become problematic. For instance, one of the village committee elders said,

> *"PI teachers become unreliable, in that they constantly looked for employment opportunities in the urban areas."*

The researcher observed that multi grade approach to learning was adopted in all the five mobile schools in Wajir Bor Division with classes having three different levels of learners. These included pre-unit, class one and nursery class. The teacher of mobile school B in Wajir Bor taught in the order of class three, class two, class one and lastly pre-unit children. The idea was to get the older children started then while they were doing the assigned work, he could teach the younger children. Also in some cases, the teacher used the older children to teach the younger ones. This approach was adopted from Dugsi system. The researcher observed that teachers are inadequately prepared to teach a multi-grade class. This is because the training they have received was tailored towards the single grade approach to teaching and learning. On the other hand, the mobile school had to rely on untrained teachers who were given basic induction, which of course was not adequate.

The trained ECDE teacher and the untrained teacher both had inadequate skills of teaching multi-grade class. One untrained teacher said,

> *"multi-grade teaching is a challenge to the mobile school teachers. Being a new approach with minimal training experience. I just use the Dugsi approach whereby the children learn by memorization"*

Another trained teacher said,

> *"Managing a multi-grade class is not easy because one has to be skillful in dealing with one group while at the same time, the other should not be idle."*

The above statement concurred with UNESCO (2005),

> *"for children to learn effectively in multi-grade environment, teachers need to be well organized, well resourced and well trained, as well as hold positive attitude on multi-grade. "*

The above sentiments are supported by Ayot (1980), who states that there is need for updating teachers to cope with the new development in methodology, content and the use of new teaching materials to be able to maintain effective classroom learning.

Table 4.24 shows that most of the teachers in the mobile schools were married for sustainability and effectiveness of service delivery. This is in line with one of the criteria of opening a mobile school in a nomadic pastoralist community in Wajir, so that they become part of the household members. For instance, one of the village committee elders said that,

> *"When teachers are not married, their subsistence and accommodation was not an issue. The teachers are attached to household of the mobile school village committee chairman. They are also provided with basic subsistence to which they could contribute from their monthly stipend. The community joined in accommodating them by erecting small makeshift huts. There was, however, an emerging concern that the teachers were leaning too heavily on the community."*

The statement was supported by Carr-Hill and Peart (2005) that Kenya mobile schools use a model teacher living with a family or a group of pastoralist because it is a learning process designed to fit in the household labour arrangement and long distance mobility. The researcher found teachers have a huge influence in making mobile schools more appealing to nomadic children.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and presents conclusions, recommendations and a suggestion for further research.

5.2 Summary

The study adopted a descriptive method using survey design. The purpose of this study was to evaluate the effectiveness of mobile school education in Wajir District. The target population included 1 DEO, 2 AEO's, 30 parents, 5 chiefs, 10 elders, 5 head teachers, 10 teachers and 60 children in the mobile schools.

Five research questions were formulated to guide the study. Research question one aimed at establishing the attitudes of the nomadic pastoralist communities towards the mobile schools programmes. The second question sought to determine the extent to which mobile school programmes have met the literacy competency of pre-schoolers. The third question sought to determine the extent to which the mobile school programmes have met the numeracy competence of the pre-school children. The fourth question sought to determine the extent to which mobile school programmes have enabled pastoralist children in Wajir Bor Division to transit to regular schools. The fifth question sought to establish the adequacy and relevance of teaching/learning materials used by the mobile school teachers.

Data was analyzed using descriptive statistics. Specifically, frequency distributions and percentages were used to present the data while information that could not be quantified was subjected to content analysis. The findings revealed that the nomadic pastoralists had positive

attitude towards mobile school programme in Wajir Bor Division, Wajir District. For example 77% (n=23) of the parents rated them as very good, 100% (n=5) of the head teachers rated them as good while all the teachers reported that the community had a positive attitude. It also revealed that 100% (n=10) of elders including chiefs reported that the community had a positive attitude towards mobile school programme. Majority of the children, 63% (n=19) showed that they had a positive attitude towards mobile school programme.

The nomadic pastoralist community appreciates the programme because it educates their children and they have been expressing support for the mobiles schools. The findings imply that the mobile schools have been received by the beneficiaries who are happy that their children are now able to receive basic education which is well suited by their nomadic life styles and integrated with their cultural values. Responses obtained indicate that mobile schools were of benefit both to the parents and children because they help them to learn how to read and write. It was also noted that the children had acquired basic skills while in their nomadic setting.

The results indicated that 57% (n=17) of the children were rated as very good while 43% (n=13) were rated as good in their ability to write simple words. Another 53% (n=16) of the children were rated as very good while 47% (n=14) were rated as good in reading at least three words. Finally in relation to language competencies, 53% (n=16) of the children were rated as very good while 47% (n=14) were rated as good in writing their own full name. In relation to reading the alphabet, 63% (n=19) of the children were rated as very good, 33% (n=11) were rated as good while only one child was rated as fair.

Mobile school programme had enabled nomadic pastoralists' children to read and write. For example 63% (n=7) of the elders said pupils who attended mobile school had been able to

read and write. Majority of the teachers 80% (n=8) said the programme had enabled the children to be able to read and write. This is an indication that children had acquired basic numeracy and literacy skills.

Finding of the study revealed that the children have also gained Mathematics Competencies and they can count, add and subtract numbers from a set not exceeding 9. Trends observed indicate that children aged ten years and above scored more that children aged between 5-7 years in the English and mathematics competencies. The researcher concludes that the children's ability improves with their age.

From the findings this study, 60% (n=18) of the children were rated as very good while 40% (n=12) were rated as good in their ability to recognize number symbols 1-20. The ratings also indicate that 57% (n=17) of the children were rated as very good while 43% (n=13) were rated as good in their ability to arrange 3 objects from the heaviest to the lightest. The results indicate that 60 % (n=18) of the children were rated as very good while 40% (n=12) were rated as good in their ability to describe the daily school routine while 60 % (n= 18) of the children were rated as very good and 40% (n= 12) were rated as good in their ability to put together and take away objects from a set not exceeding 9.

All of the five head teachers 100% said that the children who transited from the mobile pre-schools were able to read and write. Also, the teachers 57% (n=6) rated the children as very good while 43% (n=4) were rated them good in their ability to tell simple short stories using the language of the catchments area.

Another key finding of this study was that there has been increase in enrollment trend of preschool children from 2007 to 2009. It was found that there is a significant transition from

mobile school to lower primary mobile school. The findings show that children transiting from the mobile school to regular schools are less compared to those transiting from preschool mobile to class three mobile. Mobile school programme had enabled many nomadic pastoralist children to transit from mobile school to lower class and from mobile school to regular school.

From the findings it was observed that the nomadic communities have strong family bonds that neither the parents nor the children like to be separated for long periods. This trend has been on the increase because the children and the parents embraced the mobile school. It was also noted that more nomadic community households were attracted to the mobile schools. The enrollment increased due to the increase in the number of households. The observation done indicate that the schools also had the mobile kit. The GOK/UNICEF purchased mobile kit to achieve the goal of eradicating illiteracy in nomadic pastoralist communities. To achieve the EFA goals/MDG/Child rights, every child has a right to basic education. The researcher observed teachers appreciated the mobile kit as they were very useful for both the teacher and the learners.

The findings show that half 50% (n=15) of the children have the relevant learning material. Another half 50% (n=15) of the children reported that they did not have pencils and rubbers. The MOE through the national policy on textbooks publications, procurement and supply of primary School specifies that the average book pupil ratio is 1:3. The findings revealed that sharing of textbooks inconvenienced children whenever homework was given, particularly the boys who herded the cattle and wanted to do the homework while herding; and the girls who looked after sheep and goats. Lack of supplementary reading material impedes successful teaching of the reading skills. In addition to this, in isolated schools where the researcher found these books, she noticed that they had never been released to the pupils because teachers

did not have a reading culture themselves, and are not sufficiently trained on how to use books and other printed materials in improving the reading habits of nomadic children.

5.3 Conclusions

Mobile school education programme has been found to be an effective alternative approach in reaching the nomads than the formal education. Action towards enabling the nomadic pastoralist's access education changes their attitudes towards education. The programme aimed at achieving a number of objectives which included making nomadic pastoralists access education, making them acquire basic literacy and numeracy skills, making them to transit to regular school.

The programmes have been seen as important. Anecdotal evidence by learners themselves indicates satisfaction with the mobile school programme without which they would have been left out. The mobile school programmes have brought learners within the achievement of the right to education as enshrined in the many conventions which call for Education for All (EFA) and Right to Education; every child is entitled to quality early childhood education. Based on the findings from Wajir district and the interpretation, the researcher concluded that the mobile schools have contributed to education opportunities to the nomadic pastoralists'' children of Wajir district. The programmes are fulfilling a need, that is, to provide opportunities for children who have never had a chance to access school. The mobile school has changed their attitude towards education and has enabled them acquire literacy and numeracy competence. The education received has enabled them to transit to regular school or structured educational programme.

5.4 Recommendations

In the light of the research findings, the researcher makes the following recommendations:

- The Government should provide an avenue for teachers deployed in nomadic pastoralist communities of Wajir District to undergo regular inservice training, so as to enrich their knowledge and skills such as multi-grade teaching and multi-shift system since they best address the educational needs of the nomadic pastoralists.

- The government should facilitate the provision of adequate teaching and learning materials in all the mobile schools in Wajir to ensure that good quality education is made available in all learning institutions in nomadic pastoralist regions.

- To increase the ASAL community's interest in education, the government should revise the existing academic curriculum to make it relevant by localizing it. This will involve using local materials, local examples and therefore demonstrate how communities can use the acquired education to solve local problems. This will increase the ASAL community's interest in education.

5.5 Recommendation for further research

The researcher recognizes that the study has not exhaustively covered all the aspects of mobile school programme in Kenya. This calls for the need to carry out similar research among the different groups of nomads, for instance other pastoralists like the Maasai, Turkanas, Rendille, migrant fishermen who are predominantly found in lake shores and Indian Ocean and hunters gathers who are predominantly found in the Rift Valley.

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APPENDICES

Appendix I: Questionnaire for Pre-school Teachers

Kindly respond to all items as fully as possible by using a tick [√] on the correct option (s) or by writing in the blank spaces provided.

Part I: Personal Details

1. What is your gender: a). Male □ b). Female □
2. What is your highest Academic qualification? _____
3. What is your highest Professional qualification? _____
4. What is your marital Status: a). Married □ b). Single □ c). Divorced □
5. How long have you been teaching [1-5yrs] [6-10] [over 10 yrs]

Part II: Specific Information

1. Have you ever attended mobile school?_____
2. If yes above, why?_____

   _____
3. What has been the enrolment trend of pre-school children from 2007 to 2009 according to gender? a). Very good [5] b). Good [4] c). Fair [3]
4. What are the challenges associated with attending mobile school? _____

   _____
5. Do you think mobile schools offer quality education? Explain your answer.

   _____

   _____

   _____
6. What is the attitude of the community to mobile schools? _____

   _____

   _____
7. How often do parents consult you about their children's education?
   a). Often [5] b). Sometimes [4] c). Rarely [3]
8. What is the textbook/pupil ratio for Maths_____ English _____
9. What are the major administrative challenges in the running of mobile schools in Wajir District? _____

   _____

10. How often do pre-schoolers attend the mobile school?

    a). Often [5] b). Sometimes [4] c). Rarely [3]

11. What are the performance levels of pre-schoolers in the mobile schools?

    a). Very good [5] b). Good [4] c). Fair [3]

12. Rate the child's ability to read and write simple words

    a). Very good [5] b). Good [4] c). Fair [3]

13. Rate the child's ability to add and subtract from a set not exceeding 9

    a). Very good [5] b). Good [4] c). Fair [3]

14. In your view, what are the areas to be improved in order to better the performance of Mobile Schools in Wajir District? _____

    _____

    _____

15. How many children from your school transited to regular primary school from 2007 to 2009, according to gender? Boys_____ Girls _____

16. What are some of the achievements would you associate with mobile schools in this region? _____

    _____

    _____

    _____

17. Any other comment

    _____

    _____

    _____

Thanks.

Appendix II: Questionnaire for Head Teachers

Kindly respond to all items as fully as possible by using a tick [√] on the correct option (s) or by writing in the blank spaces provided.

Part I: Personal Details

1. What is your gender: a). Male □ b). Female □
2. What is your highest Academic qualification? _____
3. What is your highest Professional qualification? _____
4. What is your marital Status: a). Married □ b). Single □ c). Divorced □
5. How long have you been teaching [1-5yrs] [6-10] [over 10 yrs]

Part II: Specific Information

18. Have you ever attended mobile school?_____
19. If yes above, why?_____

    _____
20. What has been the enrolment trend of pre-school children from 2007 to 2009 according to gender? a). Very good [5] b). Good [4] c). Fair [3]
21. What are the challenges associated with attending mobile school? _____

    _____
22. Do you think mobile schools offer quality education? Explain your answer.

    _____

    _____

    _____
23. What is the attitude of the community to mobile schools? _____

    _____

    _____
24. How often do parents consult you about their children's education?
    a). Often [5] b). Sometimes [4] c). Rarely [3]
25. What is the textbook/pupil ratio for Maths_____ English _____
26. What are the major administrative challenges in the running of mobile schools in Wajir District? _____

27. How often do pre-schoolers attend the mobile school?

a). Often [5] b). Sometimes [4] c). Rarely [3]

28. What are the performance levels of pre-schoolers in the mobile schools?

a). Very good [5] b). Good [4] c). Fair [3]

29. Rate the child's ability to read and write simple words

a). Very good [5] b). Good [4] c). Fair [3]

30. Rate the child's ability to add and subtract from a set not exceeding 9

a). Very good [5] b). Good [4] c). Fair [3]

31. In your view, what are the areas to be improved in order to better the performance of Mobile Schools in Wajir District? _____

_____

_____

32. How many children from your school transited to regular primary school from 2007 to 2009, according to gender? Boys_____ Girls _____

33. What are some of the achievements would you associate with mobile schools in this region? _____

_____

_____

_____

34. Any other comment

_____

_____

_____

Thanks.

Appendix III: Questionnaires for DEO

Kindly respond to all items as fully as possible by using a tick [√] on the correct option (s) or by writing in the blank spaces provided.

Part I: Personal Details

1. What is your gender: a). Male □ b). Female □
2. What is your highest Academic qualification? _____
3. What is your marital Status: a). Married □ b). Single □ c). Divorced □
4. What is your highest Professional qualification? _____
5. How long have you been working in your present station:
   a) [1-5yrs] b) [6-10] c) [over 10 yrs]

Part II: Specific Information

1. Why were Mobile Schools introduced in this district?

   _____

   _____

2. How many such schools are fully operational in the District?

   _____

3. Are there some that are no longer functional? Yes [ ] No [ ]
4. If yes, why do you think some of these schools collapsed or closed down?

   _____

   _____

5. How do the textbooks-pupil ratio of the mobile schools compare to the regular schools?
   a). Very good [5] b). Good [4] c). Fair [3]
6. What teaching/learning materials do the mobile schools have:

S/No.	Item Description
1.	
2.	
3.	
4.	

7. How often do you assess the teachers to enhance quality of education?
   a). Often [5] b). Sometimes [4] c). Rarely [3]
8. What are the performance levels of pre-schoolers in the mobile schools?

a). Very good [5] b). Good [4] c). Fair [3]

9. In your view, what are the areas to be improved in order to better the performance of Mobile Schools in Wajir District? _____

_____

_____

10. How many children transited from mobile schools to regular primary schools from 2007 to 2009 according to gender? Boys _____ Girls _____
11. What are the main challenges facing Mobile Schools in the District?

_____

_____

12. What has government done to address these challenges?

_____

13. Any other comment

_____

_____

_____

Thanks.

Appendix IV: Questionnaires for AEOs

Kindly respond to all items as fully as possible by using a tick [√] on the correct option (s) or by writing in the blank spaces provided.

Part I: Personal Details

1. What is your gender: a). Male □ b). Female □
2. What is your highest Academic qualification?

   _____
3. What is your marital Status: a). Married □ b). Single □ c). Divorced □
4. What is your highest Professional qualification?

   _____
5. How long have you been working in your present station:

   a) [1-5yrs] b) [6-10] c) [over 10 yrs]

Part II: Specific Information

14. Why were Mobile Schools introduced in this district?

    _____

    _____
15. How many such schools are fully operational in the District?

    _____
16. Are there some that are no longer functional? Yes [ ] No [ ]
17. If yes, why do you think some of these schools collapsed or closed down?

    _____

    _____
18. How do the textbooks-pupil ratio of the mobile schools compare to the regular schools?

    a). Very good [5] b). Good [4] c). Fair [3]
19. What teaching/learning materials do the mobile schools have:

S/No.	Item Description
1.	
2.	
3.	

20. How often do you assess the teachers to enhance quality of education?

a). Often [5] b). Sometimes [4] c). Rarely [3]

21. What are the performance levels of pre-schoolers in the mobile schools?

    a). Very good [5] b). Good [4] c). Fair [3]

22. In your view, what are the areas to be improved in order to better the performance of Mobile Schools in Wajir District? _____

    _____

    _____

23. How many children transited from mobile schools to regular primary schools from 2007 to 2009 according to gender? Boys _____ Girls _____

24. What are the main challenges facing Mobile Schools in the District?

    _____

    _____

25. What has government done to address these challenges?

    _____

26. Any other comment

    _____

    _____

    _____

Thanks.

Appendix V: Interviews Schedule for Parents

Kindly answer all the questions asked by the researcher. Any information you give herein will be treated with utmost confidentiality.

1. Why were Mobile Schools introduced in this district?
2. How are the mobile schools compared to regular schools?
   a). Very good [5] b). Good [4] c). Fair [3]
3. How often do you consult the teacher about the children education?
   a). Often [5] b). Sometimes [4] c). Rarely [3]
4. Rate the basic skills your child has acquired since attending the mobile schools

Skill	**V. good [5]**	**Good [4]**	**Fair [3]**
Reading (three letter words)			
Writing (three letter words)			
Numeracy (recognizing simple number symbols)			
Counting 1-20			
Adding and subtracting objects not exceeding nine (9)			

5. How many of your children have transited to the primary schools from mobile schools according to gender? Boys _____ Girls _____
6. What is the textbook/pupil ratio for Maths_____ English _____
7. What are the main challenges facing Mobile Schools in the District?
8. What has government done to address these challenges?
9. What suggestions would you make to improve the performance of Mobile schools?
10. How have you benefited from the mobile schools?
11. Any other comment

_____

_____

_____

Thanks.

APPENDIX VI: Interviews Schedule for Elders

Kindly answer all the questions asked by the researcher. Any information you give herein will be treated with utmost confidentiality.

1. Why were Mobile Schools introduced in this district?
2. How are the mobile schools compared to regular schools?
   a). Very good [5] b). Good [4] c). Fair [3]
3. How often do you consult the teacher about the children education?
   a). Often [5] b). Sometimes [4] c). Rarely [3]
4. Rate the basic skills your child has acquired since attending the mobile schools

Skill	**V. good [5]**	**Good [4]**	**Fair [3]**
Reading (three letter words)			
Writing (three letter words)			
Numeracy (recognizing simple number symbols)			
Counting 1-20			
Adding and subtracting objects not exceeding nine (9)			

5. How many of your children have transited to the primary schools from mobile schools according to gender? Boys _____ Girls _____
6. What is the textbook/pupil ratio for Maths_____ English _____
7. What are the main challenges facing Mobile Schools in the District?
8. What has government done to address these challenges?
9. What suggestions would you make to improve the performance of Mobile schools?
10. How have you benefited from the mobile schools?
11. Any other comment:

_____

_____

_____

Thanks.

Appendix VII: Interviews Schedule for Chiefs

Kindly answer all the questions asked by the researcher. Any information you give herein will be treated with utmost confidentiality.

1. Why were Mobile Schools introduced in this district?
2. How are the mobile schools compared to regular schools?

   a). Very good [5] b). Good [4] c). Fair [3]
3. How often do you consult the teacher about the children education?

   a). Often [5] b). Sometimes [4] c). Rarely [3]
4. Rate the basic skills your child has acquired since attending the mobile schools

Skill	**V. good [5]**	**Good [4]**	**Fair [3]**
Reading (three letter words)			
Writing (three letter words)			
Numeracy (recognizing simple number symbols)			
Counting 1-20			
Adding and subtracting objects not exceeding nine (9)			

5. How many of your children have transited to the primary schools from mobile schools according to gender? Boys _____ Girls _____
6. What is the textbook/pupil ratio for Maths_____ English _____
7. What are the main challenges facing Mobile Schools in the District?
8. What has government done to address these challenges?
9. What suggestions would you make to improve the performance of Mobile schools?
10. How have you benefited from the mobile schools?
11. Any other comment

_____

_____

_____

Thanks.

Appendix VIII: Interviews Schedule for Children

Kindly answer all the questions asked by the researcher. Any information you give herein will be treated with utmost confidentiality

1. What is your name?
2. How old are you?
3. Do you have other brothers and sisters who are in school? Yes [ ] No [ ]
4. Do you like your school? Yes [ ] No [ ]
5. Do you like your teacher? Yes [ ] No [ ]
6. How often do you attend the pre-school?
   a). Often [5] b). Sometimes [4] c). Rarely [3]
7. What do you like learning most in school?
8. Can you read the alphabet?
   a) A-Q b) A – J c) A – E
   a). Very good [5] b). Good [4] c). Fair [3]
9. Can you count 1 - 20?
   a) 1 – 20 b) 1 – 15 c) 1 – 10
   a). Very good [5] b). Good [4] c). Fair [3]
10. Would you like to be in a school where you do not have to move from place to place and learn outside?
11. Do you have the following learning materials:
    a. Textbooks: Maths - Yes [ ] No [ ]: English - Yes [ ] No [ ]
    b. Exercise books: Maths - Yes [ ] No [ ]: English - Yes [ ] No [ ]
    c. Pencils: Yes [ ] No [ ]
    d. Rubbers: Yes [ ] No [ ]
12. Any other comment

_____

_____

Thanks.

Appendix IX: Observation Schedule

This observation checklist is meant to be filled after observations have been made on the selected children on various aspects. Aspects of development such as numeracy levels, communication skills among others are some of the things to be keenly observed and any observation made given a score on the checklist. The scores will then be totaled to give a conclusion.

General Information

1. What is your gender: a). Male □ b). Female □
2. How old are you? _____
3. What is the name of your School/ECDE centre_____
4. Location of the school/ECDE centre _____
5. Date of Observation _____

Observations to be made based on:

a. Language Competencies

	Rate the child's ability to:	**Score**		
		V. good (5)	**Good (4)**	**Fair (3)**
1.	Listen to and tell simple short stories using the language of catchment area			
2.	Talk about 3 items related to a given sub- theme			
3.	Read at least 3-letter words			
4.	Write own full name			
	Sub -Total Score			

b. Mathematics Competencies

	Rate the child's ability to:	**Score**		
		V. good (5)	**Good (4)**	**Fair (3)**
1.	Recognize number symbols 1-20			
2.	Arrange 3 objects from the heaviest to the lightest			
3.	Describe the daily school routine			
4.	Put together and take away objects from a set not exceeding 9			
	Sub -Total Score			

Appendix X: Photos on mobile schools

Figure 4: Enrolment and attendance in mobile school

Figure 5:

Figure 6: Community moves with their animals while children learn

Figure 7:

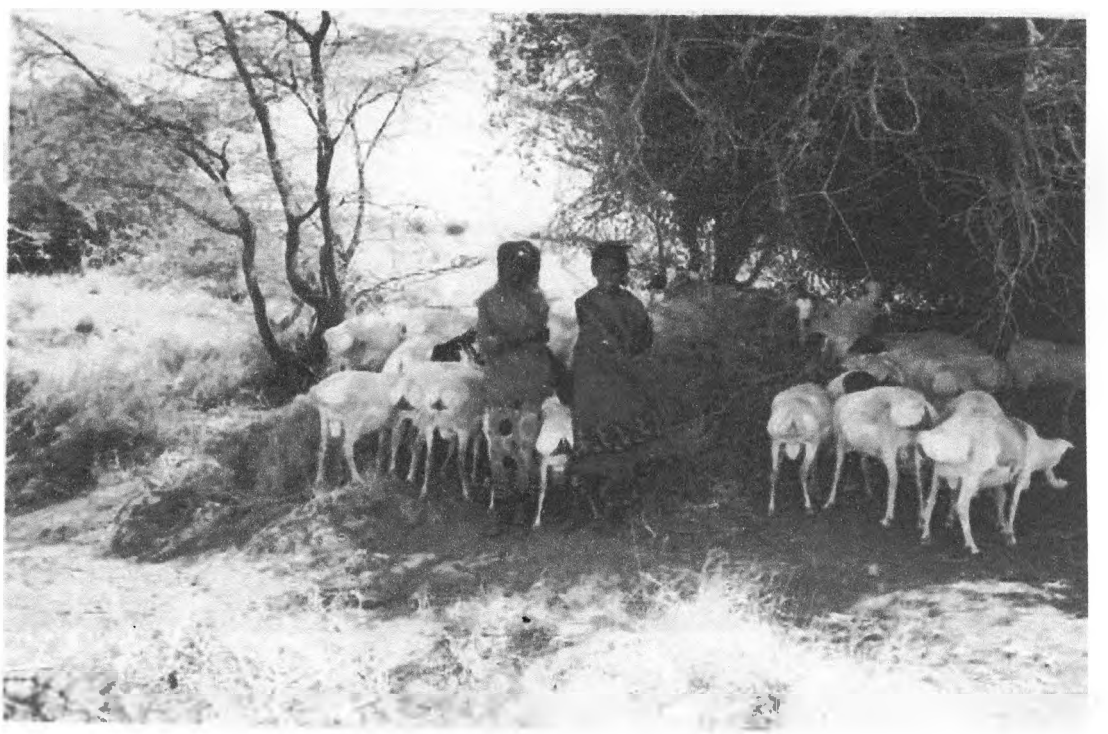


Figure 8: Literacy Skills

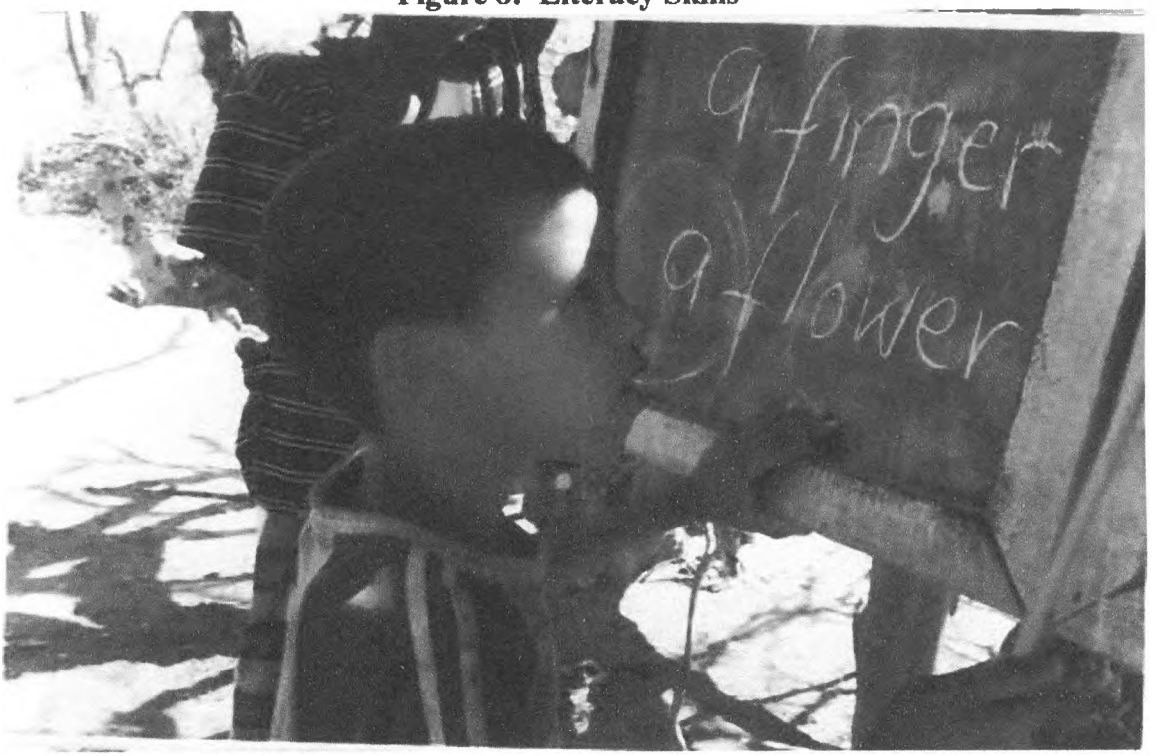


Figure 9: Literacy Skills

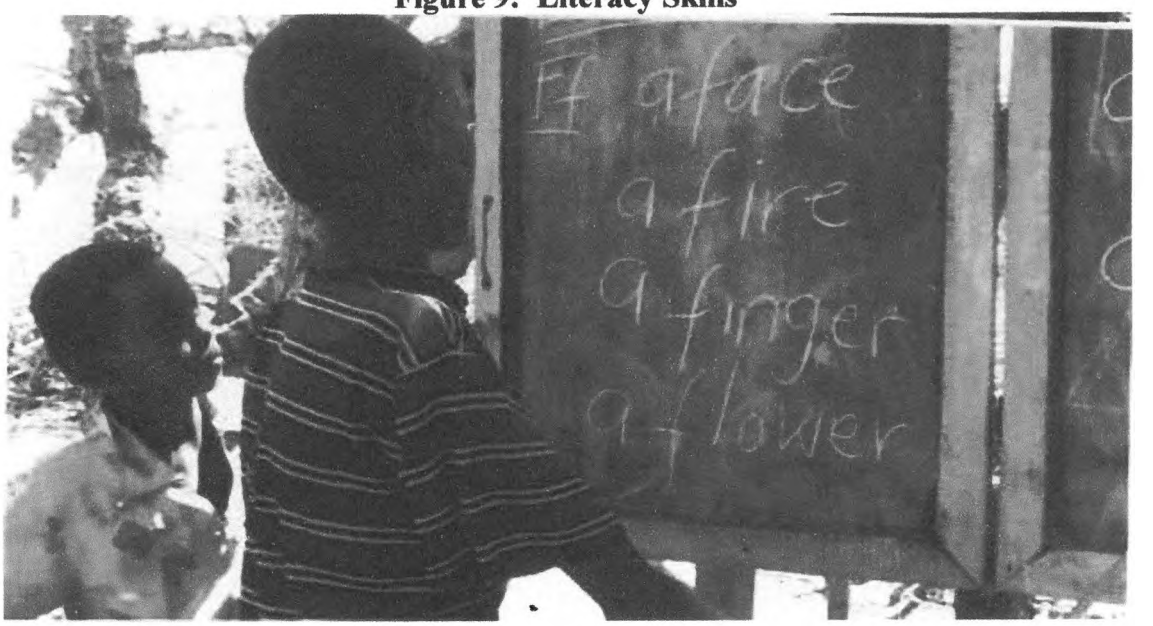


Figure 10: Dugsi as an Alternative Approach

Figure 11: Overview of Mobile school

Figure 12: Mobile Classroom

Figure 13: Mobile Classroom

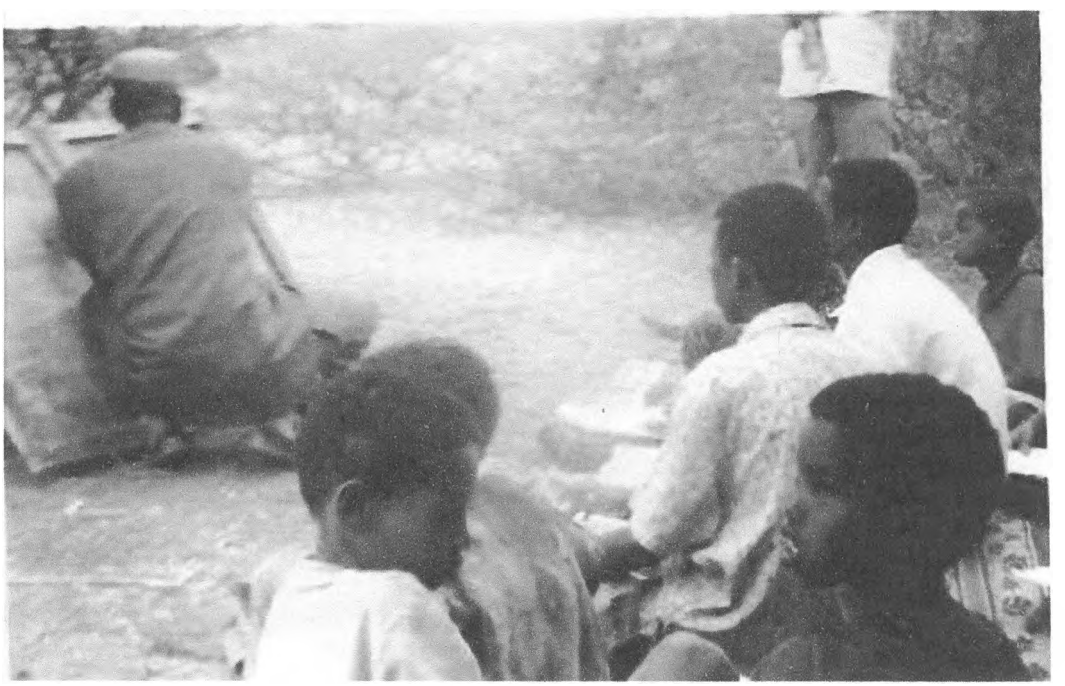


Figure 14: Mobile Kit – Resource Available in Mobile Schools

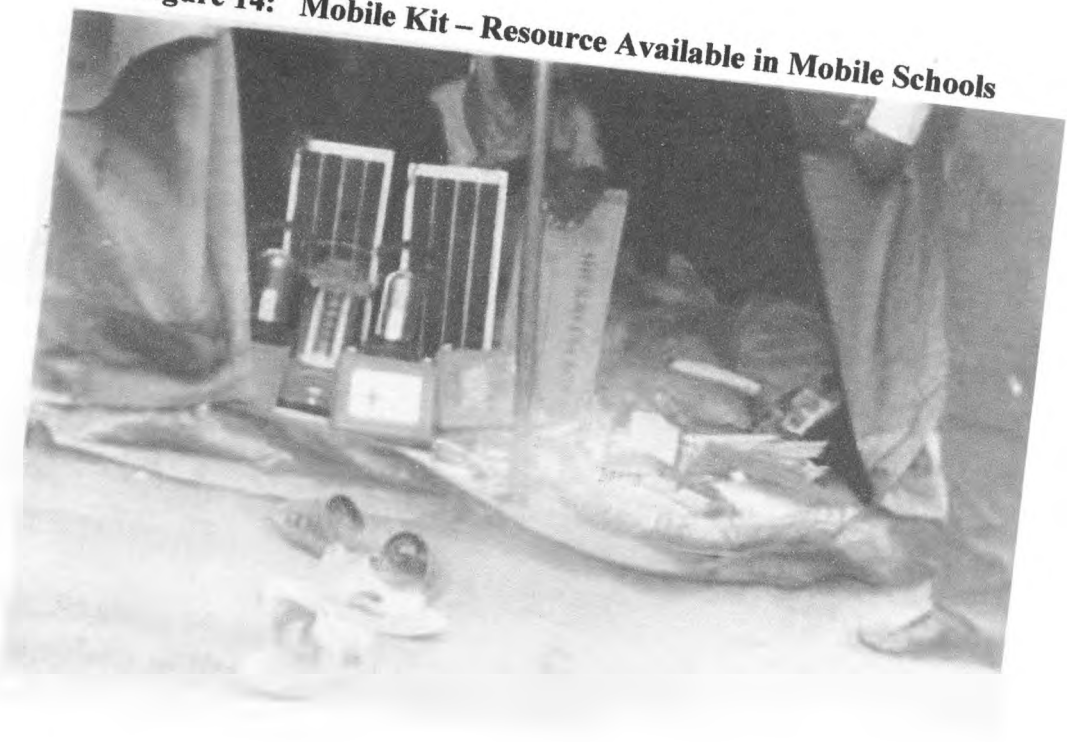
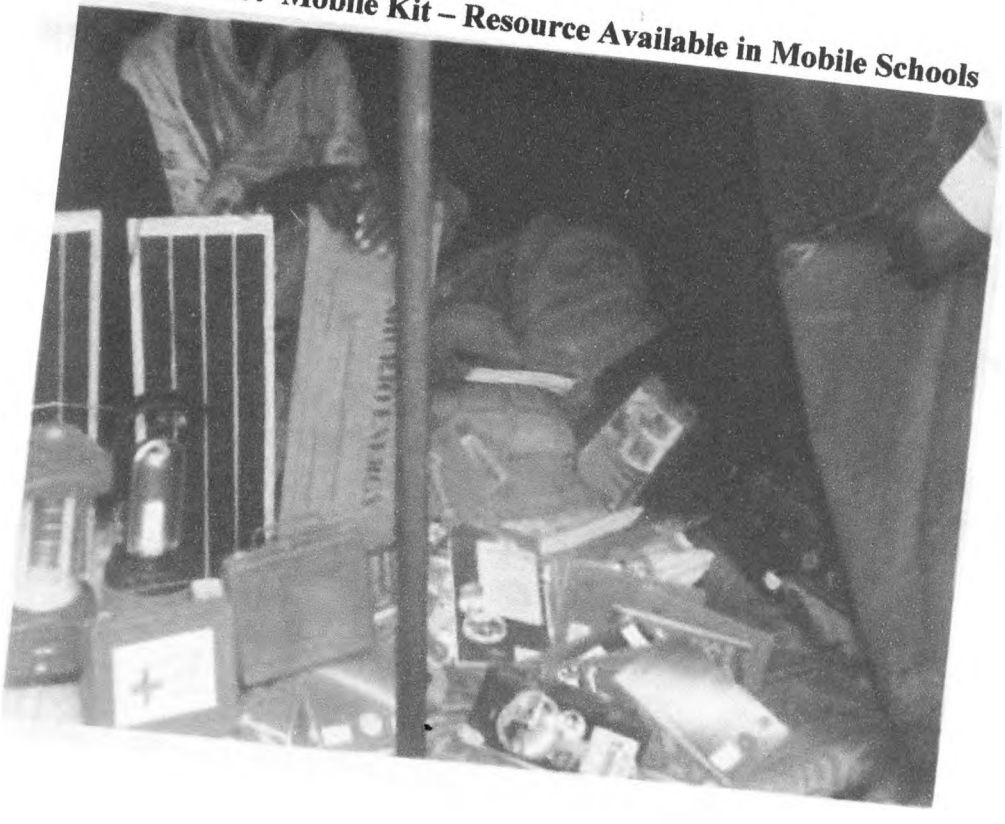


Figure 15: Mobile Kit – Resource Available in Mobile Schools



REPUBLIC OF KENYA

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Date: 27th April, 2010

Ms. Shamsa Mohamed Adan
University of Nairobi
P. O. Box 30197
NAIROBI

Dear Madam,

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"An evaluation study of the effectiveness of mobile pre-school education in Wajir District, Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **Wajir District** for a period ending ***30th June, 2010.***

You are advised to report **to the District Commissioner and the District Education Officer Wajir District** before embarking on the research project.

On completion of the research, you are expected to submit two copies of the research report/thesis to our office.

P. N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:
The District Commissioner
Wajir District

UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF EDUCATION

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OR P.O. BOX 92
KIKUYU

TO WHOM IT MAY CONCERN

RE: SHAMSA MOHAMED ADAN – E57/72757/08

This is to certify that the bearer of this letter has successfully completed the course work leading to Master of Education degree in Early Childhood Education of the University of Nairobi. She is undertaking her research from March 2010 to September 2010. Her thesis is titled **"An Evaluation study of the Effectiveness of mobile pre-schools education in Wajir District, Kenya."**

Any assistance accorded to her will be highly appreciated.

Yours faithfully,

For **Prof. P.O.O.Digolo**
CHAIRMAN
EDUCATIONAL COMMUNICATION & TECHNOLOGY