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Impact of Visual Impairments on the Education of Learners among Pastoralist Communities in Marsabit County, Kenya

By

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Abstract

Learners from pastoralist communities face peculiar challenges in accessing and continuing with education. These challenges are occasioned by the fact that the pastoral communities attach a lot of importance to pastoral production, the low population density and the challenge of ensuring that the national education policy is relevant to the lives of the pastoralist communities. The situation is worse for learners with visual impairments. Blindness impacts negatively to both the visually impaired person and to others particularly, family members. It brings problems of psychological, personal and social nature. It is on this premises that this study was designated to investigate the impact of visual impairments among learners in pastoralist communities in Logo logo school for the visually impaired in Marsabit county. The study adopted a descriptive survey design. Data was collected using questionnaires, interview guides and observation checklists. Twenty (20) learners with visual impairments, ten (10) teachers and one (1) head teacher participated in the study making a total of 31 respondents. . The analysis indicated that majority of the cases of visual impairments were caused by trachoma and lack of access to eye specialists. The school had inadequate teaching/learning resources for visually impaired learners. Majority of the teachers were male and lacked specialized training in skills for teaching learners with visual impairments. The study recommended that there is need to allocate more resources for children with special needs in pastoralist communities and innovative efforts made to increase their access to education.

Key words: visual impairments, pastoralists, teaching/learning resources, descriptive survey

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Introduction

Most pastoralists' communities live and raise their livestock in the semi-desert parts of eastern and north-eastern Kenya. Rainfall is low and unpredictable and this leads to serious droughts which cause severe hardships and the only economic activity that takes place is nomadic pastoralist. The dominant feature of most pastoralist communities in Kenya is their exclusion from economies development processes. The fact that these communities have a low representation in political and economic decision making structures has worsened the historical pattern of exclusion.

Education came with the missionaries and there was no missionary activity in the pastoralists since the missionaries found it easy to work with the agricultural communities than with nomads. This explains much of the current realities of pastoralists' exclusion from education participation. Right from the colonial period government policy concentrated on providing services and other economic activities in a manner that favored sedentary communities. This was in an attempt to advance their colonial interests in areas of agriculture and mining (Hodgson2001).This meant that during colonial rule agricultural communities had easier though limited access to education, healthcare and other social services of which pastoralist communities were denied. When colonialism ended, the elites from these communities were able to take over the institutions of political and social power.

According to Hardin(1968),cultural approaches advanced by colonial administrators to describe African pastoralist and pastoral practice continue to influence education and development policies for pastoralists .American anthropologist, Melville Herskovits (1926) advanced the myth of' cattle complex". In his thesis he argued that pastoralists are culturally attached to their cattle to a point of economic irrationality. This and other myths advanced about the pastoralists still strongly influence government attitude towards provision of education and other development initiatives among the pastoralists.

The consequence of this neglect is that presently pastoralists communities remain underdeveloped .They remain marginalized in social policy making. The areas they occupy present problems in terms of educational provision often having very low levels of education attainment and are vulnerable in terms of poverty and livelihood security (Anderson&brochdue,1999).Most of the obstacles to the provision of education in these areas include physical environment ,nature of pastoral production systems, attitudes, poverty and misinformed perceptions from policy makers (OSSREA,2000).However, Abdi(1999) notes that the limited participation in education is a consequence not only of pastoralist but of a lack of the education system to show any adaptation.

Impact of visual impairments on learning

The impact of vision loss on learning depends on many factors. For example, when a visual impairment is present from birth (congenital), it has a more significant impact on learning and development than if the visual impairment is acquired later in life (adventitious).Loss of vision can affect all areas of development. Social development is affected as children are not able to pick non-verbal clues leading to reduced social interactions. Loss of vision impacts motor development as a child may not be motivated to move towards what cannot be seen. Loss of vision causes inhibition to movement due to fear of unknown. Exploration of the environment

and materials is critical in cognitive development. Therefore movement is critical not only for motor development but also for development of concepts.

Language acquisition can also be affected by loss of vision as active interaction with people and the environment is important in language development. Delays in the area of independence in activities of daily living are also impacted as incidental learning through observation is not possible for those with significant visual impairments. Lowenfield (1975) observes that students with visual impairments require special experiences to help them make sense of what they learn.

Causes of Visual impairments

Most causes of visual impairments in school age children are congenital (Kirk, 2003). Congenital conditions may be caused by heredity, maternal or fetal infection or damage during fetal development or shortly after birth. However, cataracts remain to be the leading cause of visual impairments in all areas of the world except in developing countries. This is in spite of all the progress made in surgical techniques in many countries in the last decade. Other conditions that may cause vision loss include:

Amblyopia: This is reduced vision in an eye caused lack of use of that eye in early childhood. This occurs when a child's eye sends different messages to the brain which may in turn suppress images from the weaker eye and vision from that eye stops developing normally.

Diabetic retinopathy: This occurs when the tiny blood vessels in the retina are damaged due to diabetes. People with this condition may not problems seeing to begin with but if the condition gets worse they can get blind.

Glaucoma; this is an increase in pressure inside the eye. The increased pressure impairs vision by damaging the optic nerve. It is most common in older adults, although babies may be born with the condition and children can sometimes develop it as well.

Macular degeneration; this is a gradual and progressive deterioration of the macula which is the most sensitive region of the retina. The condition leads to progressive loss of central vision. It often occurs in older people but can also occur in younger people.

Trachoma; this occurs when a very contagious micro-organism called Chlamydia trachomatis causes inflammation in the eye. It is often found in poor rural countries that have limited access to water and sanitation.

Albinism: this is a condition characterized by a congenital absence of pigmentation including that of the eye, which can result in vision loss.

Accidents: these may cause injuries to the eye and result in vision loss

These and others not mentioned in this paper could all contribute to vision loss.

Teaching/learning resources for learners with visual impairments

The world health organization(WHO) estimates that the prevalence of blindness and low vision in children is at 0.7%. According to session paper(2005),the government aims at paying special attention to gender, vulnerable and disadvantaged children. It is therefore the policy of the government that children with visual impairment are not excluded from education. Despite these good intentions, it is estimated that children with visual impairments have the lowest access and participation rates in Kenya. This has been attributed to stigmatization, retrogressive cultural beliefs, poor attitudes and ignorance on the potential of children with visual impairments.

Learners with visual impairments learn through both auditory and kinesthetic means. They rely on all their past experiences to make connections to new materials and often the teacher is responsible for building that experience. Since vision is the primary sense through which learning takes place, the teaching and learning strategies for these learners need to be modified to reflect the child's visual, auditory and tactile abilities.

Children with visual impairments face barriers in accessing quality education. This is evidenced by a recent resource distribution analysis undertaken by the Kenya integrated education programme (KIEP) which indicated that there was a gross undersupply of the needed resources. For instance due to frequent change in curriculum, teaching/learning materials particularly the production of Braille books has become expensive leading to inadequacy. According to KIEP the current ratio of learners to Braille books is 5:1 against the recommended 1:1.

The distribution of Braille machines is inadequate given the number of schools and the potential users. KIEP further maintains that the Braille machines supplied can only cover 50% of the need. Learners with visual impairments require assistive technology devices. These devices enable learners to perform tasks independently. They include Braille devices, closed circuit television and magnifiers. Other resources include abacus stands without glare among others. The school environment should be barrier free with building ramps, pavements, rails, appropriate colors and improved lights.

Apart from learning resources, children with visual impairments require specialized teachers. They require are teachers with requisite skills. However according to the resource analysis carried out by KIEP, 50% of children with visual impairments are handled by teachers without the requisite skills. It is estimated that pupil: specialized teacher ratio is 1:20 when the recommended ratio is 1:5.

Career and vocational education for learners with visual impairments

It is important to remember that education goals for students with visual impairments are essentially the same as those of all students. These include effective communication, social competence, employability and personal independence. In order to achieve these goals, students with visual impairments require specific interventions and modifications of their educational programs. One of these modifications is career and vocational training.

Career and vocational education focuses on skills, experiences and adaptations that are necessary to prepare for and access the world of work. It should be specifically designed to fit student's needs. This is because giving students with visual impairments general instructions may not be beneficial. Career and vocational training should begin in the earliest grades. This can provide visually impaired learners the opportunity to learn first-hand about the variety of work people do. This can be done through strategies such as role-playing, peer mentoring and job shadowing. The instruction in vocational training should address personal strengths and weaknesses, work habits, ethics, workplace social skills, vocational interests, personal options and specific programs to train skill. As the student progresses they may also be trained in employment seeking skills such as locating job openings, writing job applications and information on interviews.

Problem statement

Though the provision and participation in education in Kenya expanded greatly during the 1960s and 1970s, the growth in provision and participation increasingly left behind the pastoralist communities in Kenya. The situation was worse for the vulnerable groups among the pastoralists namely girls and children with special needs. This study sought to investigate the impact of visual impairments on the access to education for learners with visual impairments in Marsabit County.

Purpose of the study

The purpose of this study was to investigate the impact of visual impairments among the pastoralist community particular attention was paid to the major causes of visual impairments among the pastrolists, implementation of special education, availability of educational resources and personnel and vocational training for learners with visual impairments.

Objectives

The objectives of this study included:

1. To find out the causes of visual impairments among the pastoralists.
2. To investigate the impact of visual impairment on the education of learners with visual impairments.
3. To assess the availability of teaching/learning resources for learners with visual impairments.
4. To find out the transition preparedness/vocational training for learners with visual impairments.

Research Design

Case study survey design was used in this study which allowed the researcher to study the impact of visual impairments on the education of learners in pastoralist communities. This enabled the researcher to carry out an in depth study of the case in question in a natural setting and a real life situation.

Locale, Target Population and Sampling Procedure

The study was conducted in Marsabit County in logo logo school for the visually impaired learners in Kenya. It included: head teachers, teachers, students and. .According to Kothari (1974), 10% sample is representative of a target population for research.

Methodology

The study adopted a case study method as it was an intensive descriptive analysis of the logologo integrated school for the visually impaired. It was an investigation of a single entity in order to gain insight into other cases according to Oso(2005),in a case where the number of organizations that can be investigated are few, and a sample is available and an in-depth analysis is necessary, a case study is the most appropriate. The researcher used questionnaires, interview guides and observation checklists.

Random sampling was used to sample a total of twenty (20) standard six (6) and seven 7pupils to take part in the study. Ten teachers were conveniently sampled while the head teacher was purposively sampled making a total of 31 respondents.

Data collection instruments

Three types of instruments were used for this study. These are questionnaires, interview guides and observation checklists. The questionnaires for the students sought background information from the respondents on the causes of the visual impairment among others while part B of the questionnaire sought information on the availability of learning resources, teachers, vocational training among others.

Interview schedules were conducted for the head teacher. The observation checklist was instrumental in assessing the availability of teaching/learning resources, school environment among others.

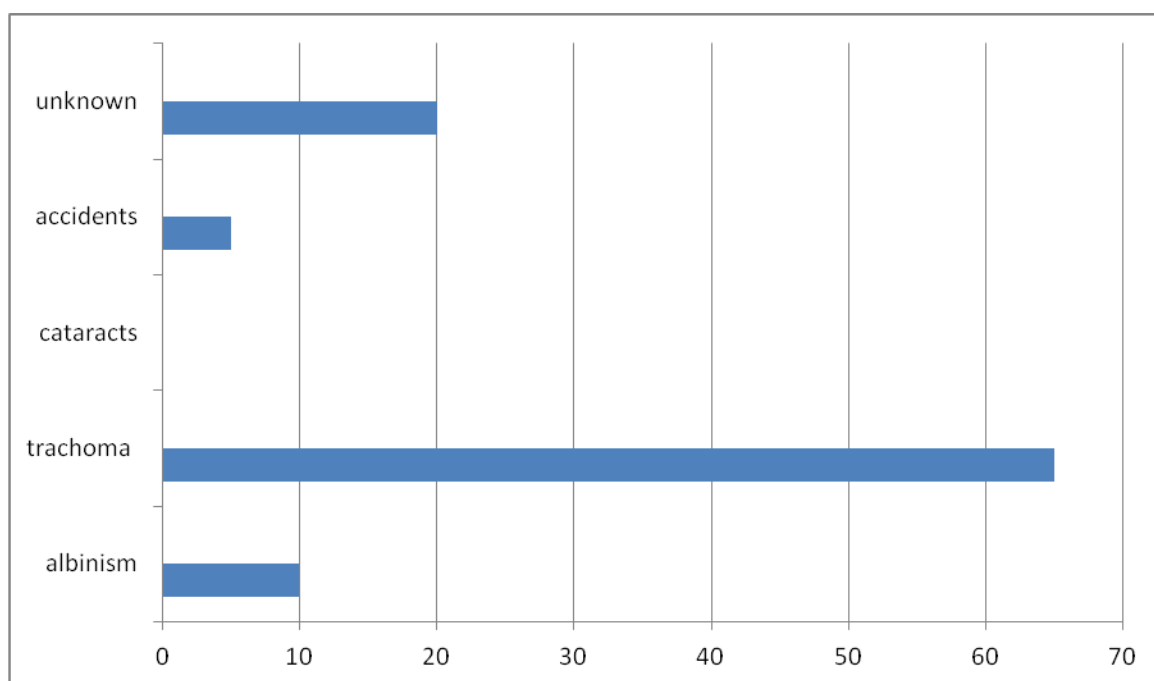
Data analysis

Data collected was analyzed using descriptive statistics and the results discussed.

Results and discussions

The study sought to find out some of the causes of visual impairments among the learners in logo logo school. Study findings are shown on Figure 1.

Figure 1: causes of visual impairments among the learners



Study findings on Figure 1 show that the majority of the learners 13(65%) indicated that the vision loss was occasioned by trachoma while four (20%) of the learners indicated that the cause of the vision loss was unknown. Only 2(10%) had albinism as the cause of the vision loss and a

further 1(5%) had experienced vision loss as a result of accidents. Study findings concur with Kirk (2003) who observed that trachoma is a major cause of visual impairments in dirty conditions where water is scarce. Most of the learners hailed from the nomadic areas occupied by the Borana, Rendille and the Gabbra which experienced serious water shortages. The fact that 20% of the learners did not know the cause of the vision loss could probably be as a result of non availability of health centers as found out by Abdi (1999) who argued that most pastoralist areas lack sufficient health care facilities.

Visual impairment impacts greatly on the education of learners with vision loss. To investigate this impact the researchers sought to find out the age of entry of learners in school. Study findings are shown in table 2

Table 1: Age of entry to school

Age of entry to school	frequency	percentage
4 to 6	0	0
6 to 10	6	30
10 to 12	11	55
12 and above	3	15
Total	20	100

Study findings on Table 1 indicate that majority of the learners 11 (55%) with visual impairments joined school at the ages of between 10 and 12 years while 6(30%) joined school at age six to ten years. Three learners (15%) joined school at a very late age beyond twelve years. Study findings further reveal that none of the learners with visual impairments joined school at the recommended age of four to six years. These findings agree with Lowenfield(1975) who discovered that visual impairments impacts greatly on the social, cognitive and motor development of a child with visual impairments. Cognitive development is affected because of the limited range of experiences that the child is exposed to as a result of restrained movement. Movement is restrained due to fear of navigation into the unknown while social development is impacted due to slow development of language. All these factors work together to ensure that children with visual impairments join school at a late age.

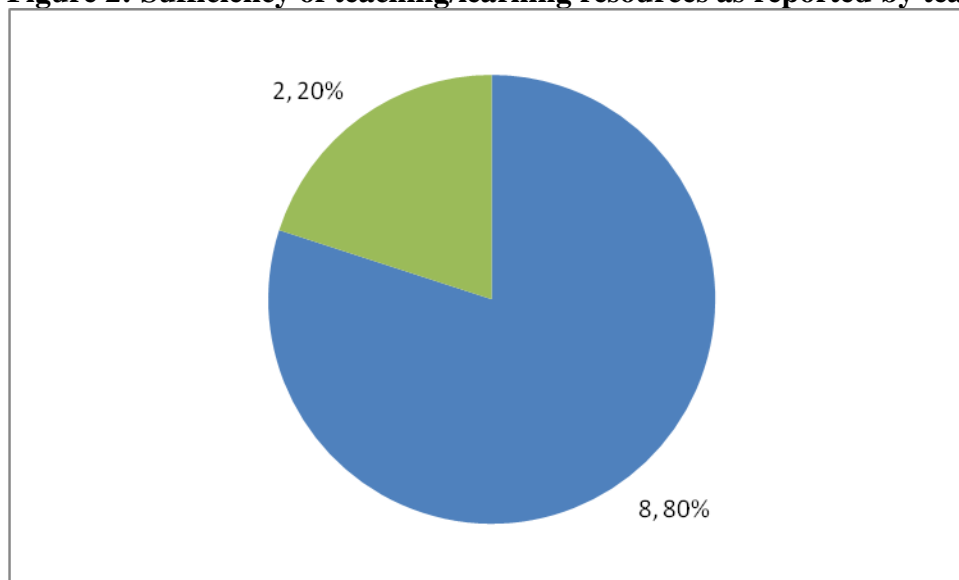
Education for children with special needs requires specialized equipment and certain adaptations in the school environment. The researchers sought to find out whether these resources were available. Study findings are shown on Table 2.

Table 2: Availability of teaching/learning resources

EQUIPMENT	YES	NO	TOTAL
Braille machines	14	4	18
Braille books	11	6	17
CCTVs	1	18	19
Magnifiers	8	5	13
Abacus	17	2	19
PERCENTAGE	59	40.6	100

Study findings on Table 2 show that 59% of the learners indicated that some teaching learning resources were available in the school while 40% indicated that they were not available. It may be concluded that though the resources were available they were not enough. Of particular interest was the non-availability of CCTVs and Braille books were not enough. This agrees with the national survey analysis on the availability of Braille books by KIEP (1986). This was particularly because the curriculum kept on changing and Braille books take a long time to produce.

On the same subject, the researchers sought to find out the view of the teachers on the sufficiency of resources. Study findings are shown on figure 1.

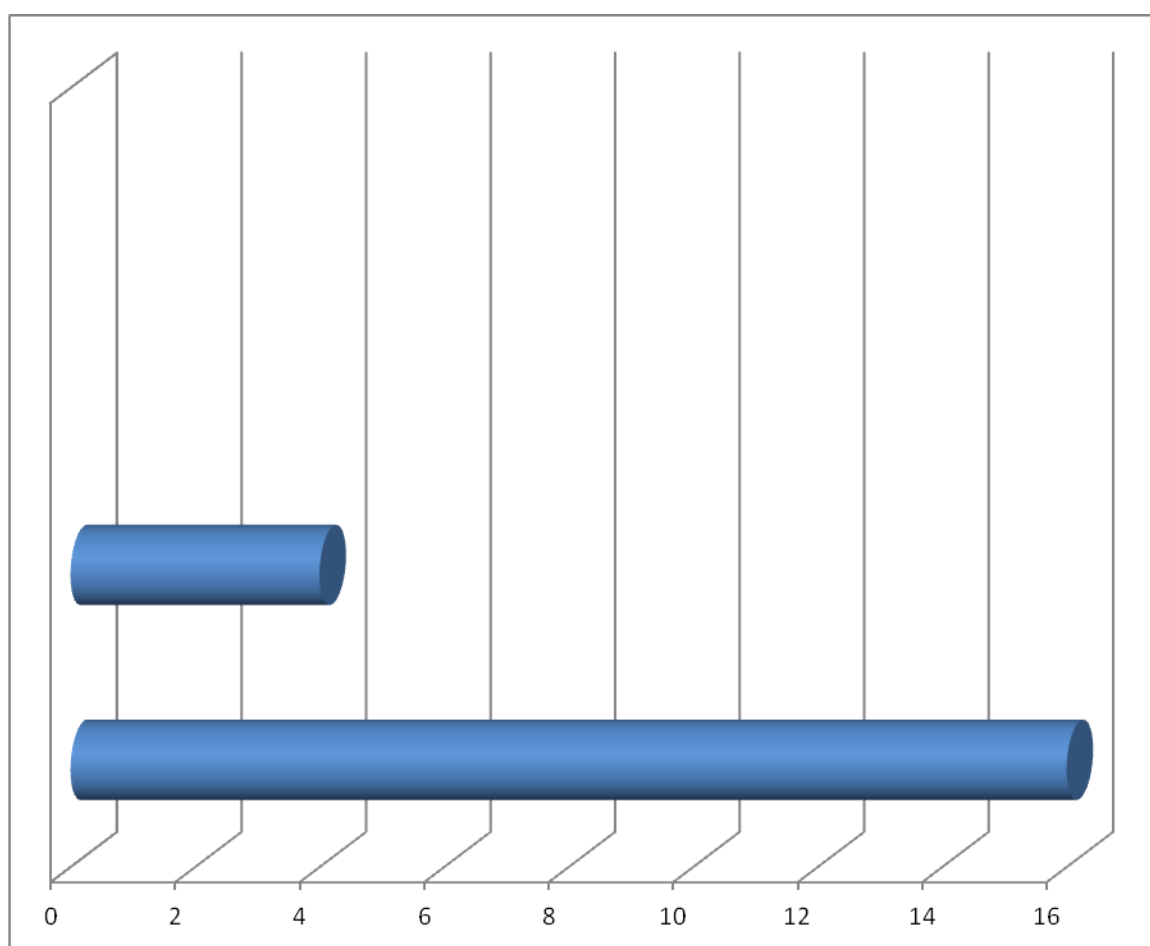
Figure 2: Sufficiency of teaching/learning resources as reported by teachers

Study findings on figure 1 indicate that majority of the respondents (80%) indicated that specialized equipment for learners with visual impairments were not sufficient with only 2(20%)

of the respondents indicating that they were sufficient. It can be concluded from the study findings that teaching/learning resources were insufficient. According to a report by UNDP (2005) education for students with special needs is greatly hampered by lack of specialized equipment.

Learners with visual impairments require vocational preparation for the world of work. This is because apart from the core curriculum which they must learn, their curriculum has an expanded dimension to include social adaptation, recreation, activities of daily living as well as vocational education. The researchers sought to find out if the learners were exposed to career education .study findings are shown on figure 3.

Figure 3: Learners' response on instruction on vocational education



Study findings on Figure 3 indicate that majority of the respondents 16(80%) reported that there was no vocational education while 4(20%) reported that vocational education was ongoing. From the study findings it can be concluded that learners with visual impairments were not being exposed to preparation for the world of work. Lowen field (1975) observed that exposing students with visual impairments to a general curriculum without vocational training may not be beneficial to them and that these students needed vocational education right from the earliest grades.

Conclusions

Study findings agree with UNDP (2005) that there is lack of specialized equipment for the education of learners with special needs. Study findings further agree with the analysis carried out by KIEP on the availability of teaching/learning resources for learners with social needs which found out that resources for this category are either lacking or insufficient. Regarding the causes of visual impairments, study findings revealed that trachoma is the leading cause of visual impairments in pastoralist areas and as Abdi(1999) observed lack of health facilities means that the pastoralist communities have no access to eye specialists. There is need to improve on access to education for the pastoralist communities in general while paying special attention to the education of children with special needs.

General Recommendations

The study findings led to the recommendations that there is urgent need for the government to make healthcare accessible to pastoralist communities. The study findings revealed that trachoma was the leading cause of visual impairments while other causes were unknown. Probably some of these unknown causes are diseases that are easily treatable and curable. Visual impairments impact negatively on learning by causing children to enter school late. The government through the ministry of education should ensure that children with special needs from minority groups are not left out of education participation.

That there is great and urgent need to ensure timely and sufficient supply of specialized equipment for learners with special needs not in pastoralist communities.

That career education and vocational training should be taught concurrently with the core curriculum in order to benefit children with special needs.

Though pastoralist areas are difficult to access, education is the only to ensure their integration in economic development.

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