

**ECONOMIC, SOCIAL AND CULTURAL DETERMINANTS OF ACCESS TO
PRIMARY EDUCATION AMONG DISABLED CHILDREN: A CASE
OF DODOMA AND CHAMWINO DISTRICTS, TANZANIA**

BY

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ABSTRACT

Despite efforts made by the Tanzanian government to provide primary education to all children, many disabled children are still out of school. Therefore, this research was carried out to determine the economic, social and cultural determinants of access to primary education among disabled children in Dodoma Municipality and Chamwino District. The main objective was to analyse factors that influence access to primary education among disabled children. The specific objectives were to: identify economic, social and cultural factors which influence disabled children's access to primary education; assess disabled children's access to primary education; and determine the extents to which some economic, social and cultural factors influence disabled children's access to primary education. A total number of 120 households were involved in the study in which parents and/or guardians of disabled children were interviewed. Moreover, teachers, members of CHAVITA in Dodoma and street/village leaders were interviewed. Data were collected in November and December 2010. The data were analysed using the Statistical Package for Social Sciences (SPSS) Software, Version 16.0, in which case the main analytical model was binary logistic regression. In the model, the dependent variable was access to primary education with the following two options: has no access (0) and has access (1). The study revealed that there were different economic, social and cultural factors which influenced disabled children's access to primary education to different extents. The most important factor was inaccessibility to school compounds; it had the highest impact on the chances of disabled children accessing primary education (Wald statistic = 4.138, $p = 0.042$). In view of the results, it is recommended that school compounds should be improved for more accessibility by disabled children.

DECLARATION

I, LINDA KIBIRIGE, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work and that it has neither been submitted nor is it being concurrently submitted for a degree award in any other University.

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The above declaration is confirmed

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Date

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DEDICATION

This dissertation is dedicated to my parents, Mr. and Mrs. Kibirige, and to my brothers George, Mujuni and Jeff who gave me moral and material support during my research work and my academic endeavours.

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CHAVITA - CHAMA CHA VIZIWI TANZANIA	XV
DDA - DISABILITY DISCRIMINATION ACT	XV
DMPDP - DODOMA MICROFINANCE PROJECT FOR DISABLED PEOPLE	XV
DSI - DEVELOPMENT STUDIES INSTITUTE	XV
FI - FRANCISCANS INTERNATIONAL	XV
HHS - HOUSEHOLD HEADS	XV
IYDP - INTERNATIONAL YEAR OF DISABLED PEOPLE	XV
MUCCOBS - MOSHI UNIVERSITY COLLEGE OF COOPERATIVE AND BUSINESS STUDIES	XV
OLS - ORDINARY LEAST SQUARE	XV
SNAL - SOKOINE NATIONAL AGRICULTURAL LIBRARY	XV
SPSS - STATISTICAL PACKAGE FOR SOCIAL SCIENCES	XV
TRANSED - TRANSPORTATION FOR ELDERLY AND DISABLED PERSONS	XV
UN - UNITED NATIONS	XV
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LIST OF ABBREVIATIONS

AIHCR	-	Afghan Independent Human Rights Commission
CHAVITA	-	<i>Chama Cha Viziwi Tanzania</i>
DDA	-	Disability Discrimination Act
DMPDP	-	Dodoma Microfinance Project for Disabled People
DSI	-	Development Studies Institute
FI	-	Franciscans International
HHs	-	Household Heads
IYDP	-	International Year of Disabled People
MUCCOBS	-	Moshi University College of Cooperative and Business studies
OLS	-	Ordinary Least Square
SNAL	-	Sokoine National Agricultural Library
SPSS	-	Statistical Package for Social Sciences
TRANSED	-	Transportation for Elderly and Disabled Persons
UN	-	United Nations
UNICEF	-	United Nations Children's Fund
URT	-	United Republic of Tanzania
US	-	United States
WHO	-	World Health Organisation

CHAPTER ONE

1.0 INTRODUCTION

1.1 Overview

This chapter highlighted issues such as background information of the study, problem statement and its justification, research objectives, the null hypothesis tested and the conceptual framework.

1.2 Background Information

In both developed and developing countries, educational institutions are not always accessible to disabled children and in many cases such persons are not admitted to the same schools as other people. Access to education, therefore, is one of the critical challenges facing disabled children particularly in developing countries, including Tanzania. World Health Organization (WHO) estimates that between 7% and 10% of the world's population lives with disabilities (about 500 million people). The vast majority of them (about 80%) live in developing countries, where only 2% have access to education or rehabilitation (WHO, 2000). According to Driedger (1991), inadequate education and employment opportunities for disabled people are reasons why people with disabilities have low status in a developing society. While disabled people in the developing world share many of the same educational barriers as disabled people in developed countries, disabled people in developing countries have far fewer opportunities. Disabled women suffer most discrimination that confronts disabled people particularly in accessing education.

In Tanzania where more than three million people (approximately 9% of the population) have a disability (URT, 2009), people with disabilities are among the most vulnerable groups, mostly uneducated, untrained, unemployed and living in rural areas. Access to primary education by disabled children remains a problem of great concern. Macha (2001) stresses that there are a few schools providing education for impaired children in Tanzania. On the other hand, Masangwa (2010) identifies inaccessibility of the school compounds as the major barrier preventing children with disabilities from achieving education in Tanzania. Socio-economic consequences of most disabled persons in Tanzania not having access to primary education remain grave. Access to primary education will help disabled persons increase their productivity, consequently bringing about economic development (Oxaal, 1997).

Like disabled persons in other regions, in Tanzania, access to primary education has been a critical problem facing disabled persons in Dodoma, even though the region is among the few regions in the country with sound training institutions for disabled persons (URT, 2003). Generally, primary education in Dodoma faces a number of problems, namely: shortage of school buildings, furniture and equipment, primary school teachers, school drop-outs and other basic facilities (URT, 2003). Currently, given the national efforts towards Universal Primary Education, Dodoma Region is actively engaged in solving problems which face primary education. Also, with respect to education for the disabled persons, the region strives to make primary education accessible to disabled persons. For instance, Dodoma Microfinance Project for Disabled People (DMPDP), a project which runs in partnership with Moshi University College of Cooperative and Business Studies (MUCCOBS) - Directorate of Field Education Dodoma Wing, targets at disabled people, offering them education, entrepreneurship training and microfinance services (Jandwa,

2009). However, despite some achievements, many disabled children are yet to gain access to primary education in Dodoma. It was admitted by the government that one of the major problems hindering provision of social services (including education) to the disabled persons is lack of record of the correct number of persons living with disabilities (The Citizen, 2010; All Africa, 2010). Socio-economic and cultural factors are also among other factors that constitute determinants of access to primary education among disabled persons in Tanzania.

In this research the type of disability to be considered is physical. Physical disability is a wide range of problems of different kinds, including people who have lost limbs, who are blind, who are deaf, who have difficulty moving, or walking, and who are unable to sustain physical effort for any length of time.

1.3 Problem Statement

In order to attain Universal Primary Education and fulfil the rights of disabled persons, the Tanzanian government has committed enormous resources to promoting access to primary education by disabled children (URT, 2005). However, like the disabled children in other regions in Tanzania, many disabled children in Dodoma are still not in school, hindered by several factors. Among other constraining factors, insufficient availability of education facilities for disabled children remains one of the major hindrances towards accessing primary school by disabled children. The factors for the poor access may also include long distance to school, wrong beliefs (parent attitude) and various forms of discrimination, transportation means and lack of community support. However, it is not known whether any of these probable factors applies. Even if any of them applies, the extent to which it applies is not known. Therefore, the purpose of the study was to identify empirically

determinants of access to primary education among disabled children in Dodoma, Tanzania and the extents to which they do so.

1.4 Justification

Tanzania visualizes to be a nation whose people are ingrained with a developmental mindset and competitive spirit. These qualities are driven by education and knowledge and are critical in enabling the nation to effectively utilize knowledge in mobilizing domestic resources for assuring the provision of people's basic needs and for attaining competitiveness in the regional and global economy (URT, 1999). Promotion of inclusive environments, both within and outside the education system, is crucial for optimal, meaningful learning for the disabled child. Disabled children are often excluded from education as a result of society's lack of knowledge about impairments in general and negative attitudes such as discrimination and stigmatisation. Social prejudices assume that children with learning, speech, physical, cognitive, or sensory impairments are unable to participate in education.

The rights of children with disabilities are often most effectively promoted when 'disability issues' do not come under the responsibility of a single ministry. The mainstreaming of disability issues into existing programmes and throughout established sectors, such as health, education and social welfare ministries, might still involve establishing a focal point for disability to ensure that children with disabilities are included in all programmes (UNICEF, 2007).

Identifying determinants of access to primary education by disabled children will inform policy makers on the need to formulate mechanisms that can enhance more inclusion of disabled children in educational frameworks that are available to the rest of the children.

The results of this study will generate empirical information on inclusion of disabled children in the entire education systems, which is crucial for integral human development and poverty reduction.

1.5 Objectives

1.5.1 General objective

To analyse factors that influence access to primary education among disabled children.

1.5.2 Specific objectives

Specifically the study aimed at accomplishing the following:

- i. To assess disabled children's access to primary education.
- ii. To identify economic, social and cultural factors which influence the disabled children's access to primary education
- iii. To determine the extent to which some economic, social and cultural factors influence disabled children's access to primary education.

1.6 Null Hypothesis Tested

The chances of accessing primary education are the same for disabled children with different economic, social and cultural factors.

1.7 Conceptual Framework

The conceptual framework of the study focused on the presence of children with physical disability by age, sex and size of the household. In this research it was hypothesised that access to primary education among children with disability, which was the dependent variable, might be hindered by the shortage of teaching aids, poverty, lack of awareness,

parents' attitude, fear of getting harmed, long distance to school, lack of community support, wrong beliefs, and inaccessibility to school compounds (Fig. 1). And the operational definitions of key variables in the conceptual framework are given in Appendix 1.

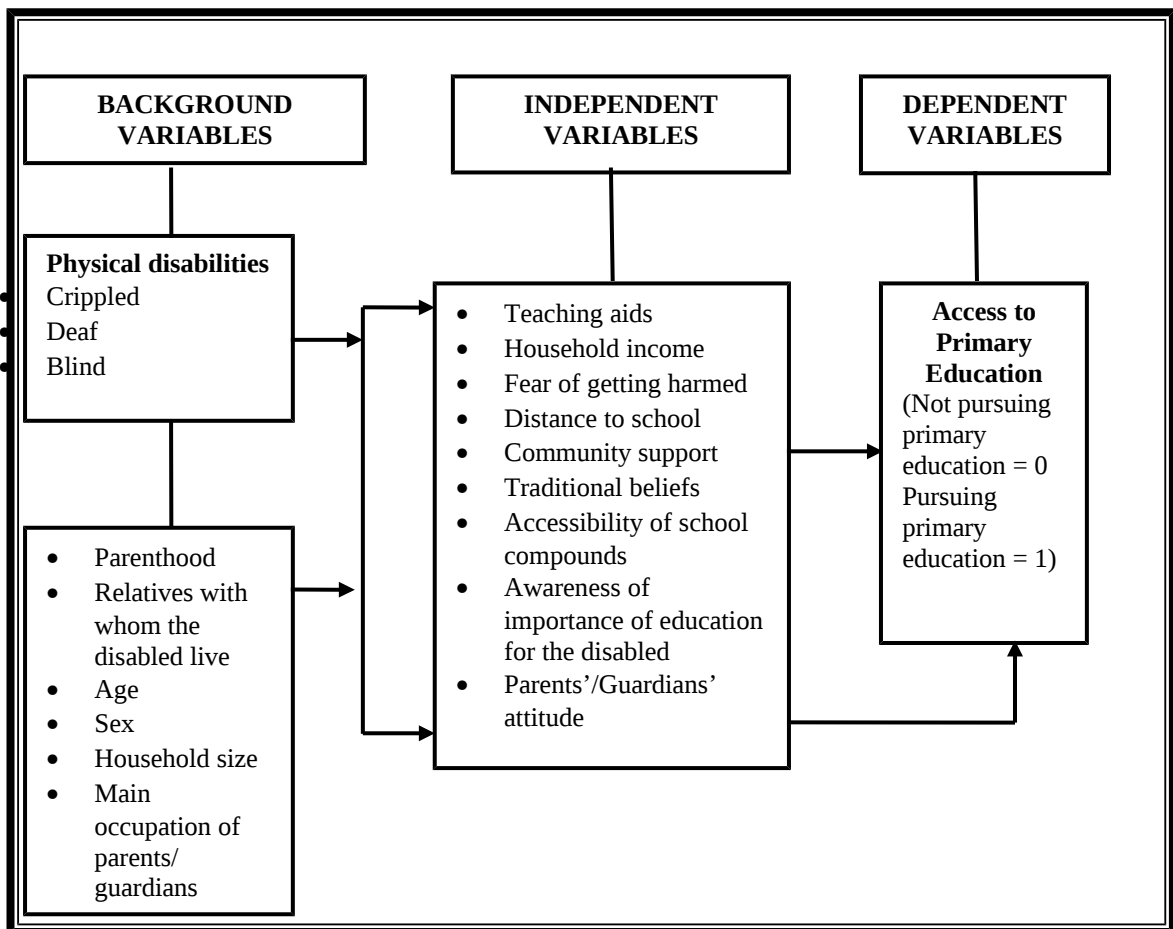


Figure 1: A diagrammatic presentation of the Conceptual framework of the research

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Overview

In this chapter a number of issues related to access to education of the disabled are discussed. They include the concept of disability, need for disabled persons to access education, importance of disabled persons to access education, determinants of access to education among disabled persons and a need for an inclusive education to all people in the society.

2.2 The Concept of Disability

Disability is a functional limitation within an individual caused by physical, mental or sensory impairment. The Disability Discrimination Act (DDA) defines a disabled person as someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities (Equality and Human Rights Commission, 2010). Leonard (1999) also defines disability as the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment. Article 1 of the United Nations Convention on Rights of the Disabled Persons underscores that persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (UN, 2007).

Similarly, the social model conceives disability as a socially created problem, consequently making necessary full integration of individuals into society. The model

does not see disability as an attribute of an individual, but rather a complex collection of conditions, many of which are created by the social environment. Hence, the management of the problem requires social action and is the collective responsibility of society at large to make the environmental modifications necessary for the full participation of people with disabilities in all areas of social life. The United Nations Convention on Rights of the Disabled Persons recognises that disability is an evolving concept and that it results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others (UN, 2007). From this perspective, equal access for someone with an impairment/disability is a human rights issue of major concern (UN, 2006).

2.3 Disabled Persons' Access to Education

Everyone has the right to education and to have access to vocational and continuing training (UN, 2006). While progress has been made in many countries, access to education for children with disabilities is generally poor, hence their experience of abject economic poverty (Edmonds, 2005). Significant problems are found in the areas of lack of training for teachers in the special needs of children with disabilities and a lack of funding for the necessary support to enable children with disabilities to be integrated into mainstream education.

It has already been pointed out that, in Tanzania, more than three million people (approximately 9% of the population) have a disability (URT, 2009). The Tanzanian Ministry of Labour, Youth Development and Sports acknowledges the reality of society's prejudice against children with disabilities, which is known to have psychologically affected their ability to realistically cope with their environment. According to its report,

much as education is essential for the development of a child's potentialities, some parents still perceive children with disabilities as a burden and opt for not sending them to school (URT, 2004).

People with disabilities are among the most vulnerable groups in the Tanzanian society, mostly uneducated, untrained, unemployed and living in rural areas (Macha, 2001). Blindness, deafness, crippling conditions due to accident or disease, leprosy, tuberculosis, mental retardation, and mental illness are the main causes of disablement.

The policy statement of the Ministry of Labour, Youth Development, and Sports stresses that the government, in collaboration with stakeholders, shall provide a conducive environment for inclusive education that takes care of special needs of disabled children (URT, 2004). Various efforts aiming at ensuring inclusive approach towards disabled persons' rehabilitation have also been seen at the regional level. Ensuring equal access to education and employment is essential if equality of opportunity is to be achieved. Without access to education, an individual's opportunities to work are extremely limited. Without employment, individuals are reliant on state benefits and/or the support of friends and family. Being out of work and on a low income limit opportunities to engage in social activities (Open Society Institute Mental Health Initiative, 2006).

2.4 The Importance of Disabled Persons' Access to Education

2.4.1 Education and human rights

Rights which are made or will be made concerning the disabled should always include disabled people all through the way since they know what is suitable and appropriate for them. In any sector, could it be health, education, security and all other human rights

people with disabilities should be included; without this, disability issues are in danger of being submerged and overlooked. The effectiveness and relevance of disability-related policies depends on consulting and actively engaging persons with disabilities, including children and their families in the policy process (UNICEF, 2007).

Inalienable human rights are articulated given the reality of human dignity (Umeodum, 2008). Right to education constitutes part of the inalienable human rights, which disabled persons equally enjoy. Article 24 of the United Nations Convention on the Rights of Disabled Persons recognises the right of persons with disabilities to education. It stresses a view to realising this right without discrimination and on the basis of equal opportunity. Persons with disabilities are not excluded from the general education system on the basis of disability, and children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability.

The convention also admonishes states that persons with disabilities should receive the support required, within the general education system, to facilitate their effective education. Further, in order to help ensure the realisation of this right, the convention obliges states to take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille, and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities (UN, 2007).

2.4.2 Education and development

The numbers of the disabled children are increasing due to rapid population growth, malnutrition natural disasters and the increasing tempo of life in towns and cities (Edmonds, 2005). This is not just a social problem of the first magnitude; it also has important implications in so far as economic development is concerned. The enormous cost of providing various kinds of medical, social and welfare support for the disabled is reflected in increased public budgets or in hidden costs of extended family care and dependency. And yet, the majority of the disabled could be rehabilitated or trained to do useful work and make a useful contribution to their own and their societal well-being (Driedger, 1991). According to Edmonds (2005), people with disabilities have the capacity to become productive citizens and contribute to national development.

The term development refers to the changes which are associated with growth, adaptation and progress. Since development is a process of change and transformation, it follows that all aspects of life are directly or indirectly affected by this process. According to Aoued (2003), development involves economic, technical, social, community and individual change. It means setting in motion a coherent package of mutual reinforcing policies which aim at improving the economic and social conditions of the society and the individual and in particular of the poorer masses. Economic development would thus involve, among other matters, an increase in resource utilisation (natural, capital, and human). It also means technical development in as much as it affects the output and efficiency of the economy, the productivity of the workforce, and the ability of the economy to generate new employment opportunities. Technical development, however, does not necessarily mean the utilisation of the most modern and sophisticated technology. It means that the economy and the society at large are capable of using the appropriate mix

of capital and human resources and have the ability to adapt production methods to changing needs or develop their own technology whenever this is required (Aoued, 2003).

Development has also a social meaning which can take the form of the equitable distribution of assets and income through such measures as agrarian reform, land reclamation and settlement, fiscal reform, creating new employment opportunities and fixing of minimum wages. An increase in the supply of educational and training services, the improvement in their distribution and equality of access to educational and training facilities, improved health, and environmental sanitation are other dimensions of social development. Further, development also implies changes in the individual values, attitudes, aspirations, expectations and relationships. It fosters self-reliance, self-realisation, self-mobilisation, and changes the individual's attitudes to work and attitude to education itself. It also motivates the individual to learn, enhances skills and renders the person more autonomous in making decisions (Aoued, 2003).

Education constitutes one of the pillars of human and societal development. Since learning is so central to adaptation which, in its turn, is fundamental to development, learning can be the most important key to unlocking the potentials for development. Whether it is in the form of education or training, or learning through experience in general, it is vital to development. As stressed by Heneveld and Craig (1996), much needs to be done in order to increase and improve education and training, and to help people in general to learn from their accumulated and new experiences. Submissions of the Fifth African Regional Conference emphasized that the more learning that takes place, the more possibilities there are for development. If learning slows down or stops, so will development (African Regional Conference, 1977).

Learning is primarily considered as an investment in human capital, which is required for development. Learning or education has a two-pronged role: One is that of supplying the different types of skilled manpower at various levels which will be required by a given pattern of development, or in other words, equipping people with skills and knowledge, thus helping them to take advantage of the new employment opportunities generated by development. The second prong is that of helping to transform the economic and social structures and thus accelerating development. Education should then be seen as a basic right and a basic need, in particular for the poorer segments of the population. The importance of making education also accessible to the disabled people cannot be over-emphasised, since they as well constitute agents of development.

The rights of disabled persons to social security, decent living and training were recognised by the United Nations since 2003. However, there are only few opportunities for education among disabled persons. The shortage of trained rehabilitation staff is one of the greatest obstacles to the full development of vocational rehabilitation services for the disabled persons in Africa (African Regional Conference, 1977).

2.5 Determinants of Access to Education among Disabled Persons

2.5.1 Poverty and Education

Poverty is the lack of basic human needs; these needs could be clean and fresh water, nutrition, health care, education, clothing and shelter, because of the inability to afford them. The causes of poverty are numerous, including a lack of individual responsibility, bad government policy, exploitation by people and businesses with power and influence, or some combination of these and other factors. The poorest people have less access to

health, education and other services. Problems of hunger, malnutrition and disease afflict the poorest in society. The poorest are also typically marginalized from society and have little representation or voice in public and political debates, making it even harder to escape poverty (Shah, 2011).

Most studies done have found that there is a high risk of educational underachievement for children who are from low-income housing circumstances and the disabled children are the ones most affected. Poverty affects the educational system starting from the primary level for some less fortunate children. In the US educational system, for example, these children are at a higher risk than other children for retention in their grade, special placements during the school's hours and even not completing their high school education as pointed out by Huston (1991). There are indeed many explanations for why students tend to drop out of school. For children with low resources, the risk factors are similar to excuses such as juvenile delinquency rates, higher levels of teenage pregnancy, and the economic dependency upon low income of parents (Huston, 1991).

Families and society who submit low levels of investment in education and development of less lucky children end up with less favourable results for the children who see a life of parental employment reduction and low wages. Higher rates of early childbearing with all the connected risks to family, health and well-being are major important issues to address since education from preschool to high school are both identifiably significant in life (Huston, 1991).

Solley (2005) argues that poverty often drastically affects children's success in school, and this goes to all children and the disabled ones. Therefore, it is safe to state that children

who live at or below the poverty line will have far less success educationally than children who live above the poverty line. Poor children have a great deal less healthcare, and this ultimately results in many absences from the academic year. Additionally, poor children are much more likely to suffer from hunger, fatigue, irritability, headaches, ear infections, flu, and colds. These illnesses could potentially restrict a child or student's focus and concentration.

The poorest people also have less access to health, education and other human basic needs. Problems of hunger, undernourishment and disease afflict the poorest in society. The poorest are also typically marginalized from society and have little representation or voice in public and political debates, which make it even harder to them to escape poverty.

2.5.2 Accessibility of the school compound

In order to enable persons with disabilities to live independently and contribute fully in all aspects of life, states' parties shall take measures to ensure to persons with disabilities access, which will be on an equal basis with others, to physical environment, to transportation, to information and communications, including information and communication technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas (UN, 2007). Access to education also should be provided equally; there are limited opportunities for attending mainstream schools in a number of countries. Children with disabilities, in theory, have the right to attend a mainstream school (UN, 2007). Also, the school compound should be accessible for both children with and those without disabilities in everything including buildings, roads, transportation, and other indoor and outdoor facilities, housing, medical facilities and workplaces.

2.5.3 Security for disabled children

Security is the level of protection against danger, damage, loss, and criminal activities. Security as a form of protection is structures and processes that provide or improve security as a condition to people of all kinds in a community and in the world. According to Phillips (2009), there can be no more important human rights **than to live life in safety and with security. Its absence prevents us from living our lives to the fullest. And, for some, its absence has led to the loss of life itself.**

Also the disabled people have the right to social security; like all other human beings, disabled people are not deprived of their liberty unlawfully or arbitrarily, and any deprivations of liberty is in conformity with the law, and that the existence of a disability shall, in no cases, justify a deprivation of liberty (UN, 2007). This security should be available for the disabled people in school so that these children can enjoy their security right and be able to do well in their studies.

2.5.4 Inclusive education

Inclusive education is the education where both children with disabilities and those without are put in the same class and receive the same education. To isolate or discriminate the disabled children may reduce their socialization skills. The message from International Year of Disabled People (IYDP) in 1981 was clear in terms of human rights for students who have disabilities, stating that students with disabilities didn't want their future decided by others or limited according to their disabilities. They have the right to demonstrate the most positive significant ability in their personality not their disabilities, and have the right to receive an education to develop their skills. Also the United Nations

Convention on the Rights of the Child in 1990 embodied this right (Foreman, 2001; Jenkinson, 1997).

O'Brien (2001) contends that children with special education needs have the right to be educated in a fully inclusive classroom, and should not be segregated for any reason. In addition, there is difference between those students to be accepted only and included as physical individuals; the reality is that they should be accepted physically and morally without isolating them from their peers in regular classrooms and preparing appropriate education which meets their needs (O'Brien, 2001). Inclusive education will help the disabled not only in education but also in acquiring the confidence and be able to be with other people without fear or being ashamed of themselves. Also, the international move towards inclusion of special needs children into mainstreaming classrooms rather than educating them in an isolated environment has been a main concern raising issues and interest for educators, policy-makers and researchers in recent times (Chalmers, 1998).

Disabled children require adequate support and opportunities for appropriate responses and assistance, including integration into mainstream society (Edmonds, 2005). The daily reality for most children with a disability as it is always seen is that disabled children are often condemned to a 'poor start in life' and deprived of opportunities to develop to their full potential and to participate in daily activities in the society. Disabled children are normally denied access to the same opportunities for early, primary and secondary education, or life-skills and vocational training, or both, that are available to other children. They either have no voice or their views are discounted. Although they are invariably more vulnerable to abuse and violence, their testimony is often ignored or

dismissed. In this way, their isolation is perpetuated as they prepare for adult life (UNICEF, 2007).

2.5.5 Empirical information on access to primary education among the disabled

People with disabilities find difficulties in accessing reliable transport, and buildings due to unfriendly housing infrastructure. They are suffering from limited access to information, and social stigmatization. Directly or indirectly, these factors reduce the chances of vulnerable groups accessing social services as well as contributing to economic growth and poverty reduction efforts relative to other groups. While progress has been made in many countries towards achieving the Millennium Development Goal of universal primary education million children still remain out of school. Most Of these children are estimated to be disabled children (UNESCO, 2006). In Africa, fewer than 10% of disabled children are in school. Other surveys suggest that only 2% of disabled children receive an education and that disability has a greater impact on access to education than gender, household economic status or rural/urban divide (Filmer, 2005).

Though the numbers of disabled teachers in developing countries are very hard to obtain (World Vision 2006), government should, Instead of fitting the child to the education system; inclusive education seeks to fit the education system to the child. (Save the children, 2001).

In summary, this chapter has looked at a number of concepts concerning the disabled. In this chapter disability has been defined as functional limitation within an individual caused by physical, mental or sensory impairment. Disability could lead to inaccessibility to education, unequal opportunity to access jobs and insecurity. This chapter sums up the need for an inclusive education system in societies. The next chapter describes the research methodology applied in this study.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Overview

This chapter presents the details and methods used by the researcher to collect and analyze data on the study. It presents the study area, study design, sampling procedures, sample size, data collection methods and procedures, data analysis and limitations of the study.

3.2 Study Area

Dodoma Region, where data for this were collected, is one of the 30 administrative regions in Tanzania. It has an area of 41,310 sq km, and administratively it is divided in six districts of Chamwino, Bahi, Kondoa, Mpwapwa, Kongwa and Dodoma Urban. The region has 486 villages which are in 145 wards with a population of 1,692,025 (with a growth rate of 2.3%) out of which 1,484,763 (87.75%) live in rural areas (URT, 2002). The region is among the few regions in the country with sound training institutions for disabled persons (URT, 2003). Among these districts eight wards were visited six wards from Dodoma which were Chang'ombe (23%), Chinangali (8%), Mnadani (5), Makole (7%), Kikuyu (7%), Miyuji (10%) and two wards from Chamwino District which were Buigiri (36%) and Msanga (24%).

3.3 Study Design

A cross-sectional research design was adopted for the study. This design allows collection of data on different groups of respondents at one point in time, and this minimises time and financial resources (Bailey, 1994). Cross-sectional design can also be used in descriptive studies and determination of relationships between variables (Singleton *et al.*, 1993).

3.4 Sampling Procedures

Purposive sampling technique was used to select two districts in Dodoma Region, and rural wards and urban wards where data were collected. The wards were selected purposefully based on the presence of school(s) for physically disabled children, which are the blind, deaf and crippled. Furthermore, key informants were identified by means of purposive sampling. Key informants were teachers and street/village leaders.

3.5 Sample Size

According to Bailey (1994), the minimum sample size for a research in which statistical data analysis is to be done is thirty (30) cases. In this study, 120 households were involved, which included 60 with disabled children in primary school and 60 with primary school aged disabled children who were not in school. The total distribution of all respondents involved in the study is shown in Table 1. This sample was over and above the above minimum sample size recommended by Bailey (1994).

Table 1: Distribution of all respondents (N=130) involved in the study by gender

Type of Respondent	Number		Total
	Male	Female	
Community members HHs	82	38	120
Key Informants	6	4	10
Total	88	42	130

3.6 Data Collection Instruments

A structured questionnaire was used to collect data from the 120 households selected. Moreover, checklists of items for discussion were used to collect relevant information from key informants who were teachers, village leaders, Education officers and the

Chairperson of *Chama cha Viziwi Tanzania* (CHAVITA) in Dodoma.

3.6.1 Structured questionnaire

A questionnaire with both open and close ended question was developed and used to collect primary information from the selected 120 households. The questionnaires were used to solicit information from the respondents on the variables presented in a conceptual framework. All the questionnaire copies were completed by means of structured interviews conducted by the researcher and one research assistant.

3.6.2 Checklist used

A checklist was used to collect data from key informants. The key informant method is based on obtaining information over time from community residents who are in a position to know the community well. They are knowledgeable participants who are interviewed. From the study, the key informants were those who knew exactly what was happening on education concerning disabled children and all the issues concerning children with disabilities. The checklists were used to solicit information to supplement information that was corrected in questionnaires.

3.7 Data Collection Procedures

3.7.1 Primary data

Primary data as a source of information were collected through structured interviews and key informant interviews.

3.7.2 Secondary data

Secondary data are information pieces that already exist somewhere, having been collected for another purpose. Common sources of secondary data for social sciences include censuses, surveys, and organizational records. Secondary data analysis saves time that would otherwise be spent collecting data. In addition to that, analysts of social and economic change consider secondary data essential, since it is impossible to conduct a new survey that can adequately capture past changes and developments. Data were obtained from different articles, journals, internet sources, manuals, and periodicals which were available in Dodoma and various public and higher learning institution libraries, including Sokoine National Agricultural Library (SNAL).

3.8 Data Processing and Analysis

After collection, data were sorted, coded and analyzed using the Statistical Package for Social Sciences (SPSS) whereby descriptive statistics including mean, median, mode, percentage, range, minimum and maximum values of individual variables were computed. Moreover, inferential analyses were done to determine relationships between independent variables (economic, social and cultural factors) and the dependent variable (access to primary education). For inferential analysis, binary logistic regression was used, and its model is given below:

$$\text{Logit}(p_i) = \log(p_i/1-p_i) = b_0 + b_1x_1 + b_2x_2 + \dots + b_kx_k \text{ (Agresti, 2002; Xie, 2000),}$$

Where:

Logit (p_i) = \ln (odds (event), that is the natural log of the chances of an event occurring

p_i = prob (event), that is the probability that the event (i.e. attending school) will occur

$1-p_i$ = prob (non-event), that is the probability that the event (i.e. attending

school) will not occur

b_0	=	constant of the equation
b_1 to b_k	=	coefficients of the independent variables
k	=	number of independent variables, 8 in this case
x_1 to x_i	=	independent variables entered in the model, which are:
x_1	=	household income
x_2	=	fear of disabled children being harmed
x_3	=	community support
x_4	=	traditional beliefs
x_5	=	accessibility of school compounds
x_6	=	distance to school
x_7	=	awareness of importance of education for disabled children
x_8	=	parents'/guardians' attitude towards education for disabled children

3.9 Limitations of the Study

The study encountered a number of obstacles. These were:

1. Some parents or respondents were hiding their disabled children; so it was difficult to convince them to bring them out because most of them argued that these days children with disabilities are like animals we go and see in the national parks but no help is ever given to them. But after detailed explanations, they responded willingly to the questions.
2. Identifying and accessing households with disabled children was one of the limitations of the study but with the help from the village leaders and the community members themselves it was possible to access them.

4.0 RESULTS AND DISCUSSION

4.1 Overview

This Chapter shows all the major results and discussions arising from the data analysis associated with economic, social and cultural determinants of access to primary education among disabled children in Dodoma Region, Dodoma and Chamwino Districts where information was collected. These results are discussed under four main sections: The first section deals with household heads' and other respondents' characteristics. The second section focuses on disabled children's access to primary education. The third section discusses social, cultural and economic factors influencing disabled children's access to primary education. The fourth section shows the extents to which some social, cultural and economic factors influence disabled children's access to primary education.

4.2 Socio-Demographic Characteristics of the Respondent Households

Characteristics of households have social and economic implications for access to primary education among disabled children. Thus, the information given is mainly based on household heads' experience and knowledge on the study. Among the households' characteristics dealt with were sex, age, marital status, household size, years of schooling, main occupation and physical statuses of household members.

Table 2: Percentage distribution of household characteristics (N=120)

Characteristics of household head	Number	Percentage (%)
Sex of household head		
Male	82	68.3
Female	38	31.7
Age household head		
20-30	21	17.3
31-40	36	29.0
41-50	40	33.5
51-60	14	11.7
61-70	4	3.2
71-80	5	4.0
Marital status of household		
Married	81	67.5
Single	11	9.2
Divorced	9	7.5
Widowed	19	15.8
Household size (N= 120)		
<3	12	10.0
3-4	100	83.4
>4	8	6.6
Years of schooling of household head		
0	18	15.0
7	91	75.8
12	6	5.0
14	1	0.8
17	4	3.3
Main occupations of household heads		
Farming	69	62.7
Retail trade	25	22.7
Teaching	6	5.5
Carpentry	3	2.7
Being waitresses	2	1.8
Others	15	4.5
Physical status of household head		
Able- bodied	106	88.3
Disabled	14	11.7

4.2.1 Sex categories of household heads

The sex of the household head is an important factor that can influence opinion on the need to ensure primary education of a disabled child in the household. According to the study findings given in Table 2, about two-thirds (68.3%) of the household heads were male while about one-third (31.7%) were female. Despite the imbalance, this sex composition allows analysis of information by sex of household heads on the factors that determine access to primary education among disabled children, since both economic facilitate and passionate care are essential predisposition of male and female household heads, respectfully.

4.2.2 Age of household heads

The age of the household is vital with respect to access to primary education among disabled children. The results in Table 2 generally suggest that the household heads were drawn from different age groups. Those in the productive age constituted the majority (79.8%), which provides the suggestion of greater chances of enrolment into primary education on the side of their disabled dependents, given income earnings of the household heads. On the other hand, the results also suggest that the involvement of household heads above 50 years (18.9%) was a rich source of information on factors influencing access to primary education among the disabled children.

4.2.3 Marital status

According to Koso and Wilmoth (2002), married couples are likely to be more productive than single persons because often with marriage comes the responsibility and commitment to the common good and socio-economic transformation. Data in Table 2 show that about two-third (67.5%) of the respondents were married couples. Collaboration and mutual

efforts characterising marital life can bring about improved livelihood, hence increasing the chances of disabled children's access to primary education. However, in relation to accessing primary education on the side of disabled children, even those with the status of divorced, widowed and single which was about one-third (32.5%) could be seen in the positive light because by virtue of their independence they enjoy the privilege of making personal decisions concerning educating their disabled children without hindrances arising from a partner in marital life.

4.2.4 Household size

With respect to household economic resources, household size constitutes an important factor that can determine disabled children's access to primary education. The findings in Table 2 reveal that more than four-fifths (83.4 %) of the households had sizes ranging from 3 to 4. Low proportions (10.0% and 6.6%) of the households had sizes of less than 3 and more than 4 household members, respectively. Though Nyangas (2008) found in his study that households with larger sizes (7 to 9 persons) were wealthier than those with 1 to 6 people in the household. However, according to Umeodum (2010), due to the heavy financial strain and demands arising from the material needs of offspring, large household size can negatively stifle economic progress. Low household size characterizing the respondents' households can be seen to offer greater opportunity and ability for them to educate their disabled household members, at least to the level of primary education.

4.2.5 Level of education

The level of education widens the horizon of one's knowledge, enabling one to be aware that access to primary education is equally the prerogative of the disabled children. The household heads were, therefore, asked to indicate their levels of education. The data in

Table 2 indicate that the majority (75.8%) of them had primary education while a low proportion (9.1%) of them had secondary education and above. The findings also show that 15.0% of the household heads had no formal education at all. Attainment of higher education enhances one's ability to recognize and appreciate the importance of education. While the majority of the household heads had attained primary education, the general phenomenon of low level of education that characterized the people might affect disabled children's access to primary education.

4.2.6 Main occupations of household heads

The data in Table 2 show that the majority (62.7%) of the household heads were farmers, while the rest (37.2%) were engaged in other occupations other than farming. In Tanzania, agriculture has remained the lead sector, accounting for about a quarter of the national GDP. However, it was observed during discussions with community members that the reality of lack of capital forced the people in the study area to engage in small-scale farming, and on subsistent basis. This implies low income earning to the people, making the majority of them unable to provide the basic needs for their household members including primary education for their children, particularly the disabled ones.

4.2.7 Physical status of respondents

According to the study findings shown in Table 2, the majority (88.3%) of the household heads were found to be able-bodied while a low proportion (11.7%) of them were physically disabled including, the blind, deaf and crippled as shown in Table 3. While the involvement of the disabled people offers the advantage of getting first-hand information based on their personal experiences with respect to education opportunities, the able-

bodied individuals can also proffer reliable information on community attitudes towards the education of the disabled children.

Table 3: Types of disabilities

Type of disability	Number	Percent (%)
Crippled	4	3.3
Blind	5	4.2
Deaf	5	4.2
Total	14	11.7

4.3 Parents Living with Disabled Children

The findings in Table 4 show the number of disabled children living with parents that is both parents, only mother, only father or no parent at all. Most of the disabled children were living with parents compared to those children who were not living with their parents. Among the 120 households, 76 disabled children were living with both parents and 30 of them were living with only one parent while 14 of them had no parents.

Table 4: Cross tabulation results indicating the relationship between parents living with the disabled and whether they were going to school

Parent living with a disabled children	Whether disabled children were going to school		Total
	Yes (%)	No (%)	
Both parents	64.5	59.2	76
Only mother	20.4	25.9	26
Only father	4.3	0	4
No parent	10.8	14.8	14
Total	100	100	120

Pearson chi-square = 1.840 (p = 0.606); Linear association = 0.171(p = 0.679)

Families which had children and young people with disabilities very often had similar life styles. They all had needs concerning education, access to services, and other issues directly related to their children' needs. From the data in Table 4, most of the disabled children (64.5% from the study area) were living with both parents that is mother and father, while 24.7% were living with only one parent. Besides that, there were those children who had no parents who were represented by 11.7% of all children as illustrated in Table 4. However, there was no significant relationship between living with parent/s and having access to primary education ($p = 606$). Disabled children are likely to have more access to education if they are living with both parents compared to those who have no parents at all. In the results in Table 5 show the number of respondents who were living with the disabled children as relatives.

Table 5: Relatives living with disabled children (n = 14)

Relatives	Number	Percent (%)
Uncle	4	28.6
Aunt	2	14.3
Brother	6	42.8
Others	2	14.3
Total	14	100

The results in Table 5 show that among the 14 disabled children 3.3% were living with their uncles, while 5% of them were living with their brothers. Others as were represented in Table 5.

4.4 People's attitude towards disabled children

Many people have wrong attitude towards disabled children. Therefore, respondents were presented with a couple of statements, and they were supposed to agree, disagree or remain neutral if there was no answer. This was done in order to determine their attitude towards disabled children. The statements and responses to them are presented in Table 6.

Table 6: Attitude towards disabled children (N = 120)

Attitudinal statement	Disagree (%)	Undecided (%)	Agree (%)
Having a disable child is something to be ashamed of	89.1	3.3	7.5
Children with disabilities are born to stay at home	89.2	33	7.5
Education is important to disabled children	1.7	2.5	95.8
It is okay to hide disabled children in the house	91.7	5.0	3.3
It is not a burden to stay with a disabled child	71.7	1.7	26.6
Disabled children are in fear of getting harmed	15.8	7.5	76.6
Communities always discriminate against disabled children	32.5	3.3	64.1
Disabled children should have their special schools	15.0	2.5	82.5
It is not expensive to take disabled children to school	65.0	7.5	27.5
Parents of disabled children should take a lead to see to it they go to school	5.0	1.7	93.4
It is very expensive to educate disabled children	31.6	1.7	65.8
Educating disabled children is a waste of money	86.3	7.5	6.6
Disabled children are always slow learners	60.8	10.0	29.2
Disabled children can perform well in school	1.7	5.0	93.3

From the results shown in Table 6, about two-thirds (64.1%) of the respondents agreed with the statement that most of the community discriminate against disabled children. This shows that people still have wrong attitude about disabled children. And this is only common to people who do not have the disabled children, because “only the one who is

wearing the shoe can ever know where it hurts”. Being discriminated against may lead to lack of confidence among the disabled and therefore affect their access to primary education. Also Table 6 shows that people had good attitude towards the importance of education to disabled children; 95.8% agreed with the statement that education is important to disabled children. And about 82.5% of the respondents agreed that disabled children should have their own schools. This is because of the inaccessibility of the school compounds because most schools are built in a way that most of the disabled children cannot get access to most of their compounds because the environment is not friendly with them (Mwananchi, 2011). 89.1% disagreed with the statement that having disabled children is something to be ashamed of, while 91.7% also disagreed with the statement that it’s okay to hide disabled children in the house. 89.2% of households disagreed with the statement that disabled children are born to stay at home.

Also, the findings in Table 6 show that 76.6% of the respondents agreed that insecurity for disabled children was a threat, and hence that most of disabled children were in fear of getting harmed at school or on the way to school. From the results, most respondents (71.1%) agreed that it is a burden living with disabled children because of the need of much attention in everything and education is one of the things. Therefore, this also affects the access to primary education among disabled children because one may choose not to take them to school because some of them need to be carried to school every day, and therefore it is a problem, and that is when they turn to be a burden to those who are taking care of them who may stop taking them to school. The findings show that 93.4% of the respondents also agreed with the statement that parents should be in a front line in taking disabled children to school as seen in Table 6.

Table 7: Cross-tabulation results indicating relationships between whether disabled children are going to school and three groups of overall attitude

Whether disabled children are going to school	Three groups of overall attitude			Total
	Unfavourable attitude	Indifferent attitude	Favourable attitude	
Yes	42	18	33	93
No	8	2	17	27
Total	50	20	50	120

Pearson chi – square = 6.796 (p = 0.033); Linear association = 4.606 (p = 0.032)

From the results on Table 7 show the overall attitude of the respondents and 50 respondents (41.6%) had a favourable attitude and also the same percentage of respondents had unfavourable attitude towards disabled children while 16.6% had indifferent attitude. Also from Table 6, 22.5% of disabled children never had access to primary while 87.5% of them had access to primary education. However, there was no significant relationship between access to primary education and overall attitude of respondents towards disabled children (0.033). Disabled children are likely to have more access to primary if people had good attitude towards them.

4.5 Disabled Children’s Access to Primary Education

Education has been proved to be the foundation of every society and good news for its bright future, and access to education is a certain and fundamental right of all human beings, children in particular. It is famously said, “Where the gate of a school opens, the gates of ignorance are closed.” All children should access this right fairly and equally, without any discrimination on such grounds as race, ethnicity, religious denomination, language, place of birth, social status, and so forth. Equality of educational opportunity is one of the basics of the society and to all children, able – bodied and disabled (AIHRC,

2009). Tanzania is still challenged by the role of providing equitable quality education to all. The major challenge is to explore sufficient resources for improvement of quality, equity and access (TAE, 2009).

From the results of the study, more than a half (54.2%) of the respondents responded that children with disabilities have better access to school compounds while 45.8% of the respondents responded that children with disabilities have poor access to the school compound. This shows that many disabled children do not have access to school compounds.

Children should study in an appropriate educational atmosphere, and this atmosphere requires the availability of the necessary facilities like appropriate sanitation, clean and healthy potable water, desks, chairs, recreational centres, and restrooms. Inappropriate school environment negatively affects the child's educational morale and finally causes some children, especially the disabled ones, not to get access to education. From the study, more than three quarters (77.5%) of the disabled children had access to education while 22.5% had no access to education.

4.6 Social, Cultural and Economic Factors Influencing Disabled Children's Access to Primary Education

There are factors which influence disabled children's access to primary school education. And these factors can be grouped into three groups, which are social factors, cultural factors and economic factors as illustrated below.

4.6.1 Social factors

4.6.1.1 School environment

Environment encompasses the external surroundings that lead us to our destination,

whether it is to a public building, market, residential colony or transit system. It can also be referred to as geographic accessibility, and it is a key element in maintaining continuity in the mobility chain (TRANSED, 2010). From the study, most of the respondents (75%) from Dodoma and 71.7% from Chamwino as shown in figure 5, argued that the environment where the disabled children lived in or even the school environments were not conducive nor safe to all the children, and that the disabled children were facing difficulties to access the school environment. Other areas were so sandy that the children who were crippled and using wheel chairs could not ride their wheel chairs on it. Some areas were hilly and preventing disabled children from accessing school environments. As observed that 45.8% of the respondents argued that the school compounds for disabled children were not accessible, they were only accessible for able-bodied children and, therefore, it became one of the obstacles for disabled children accessing primary education.

4.6.1.2 School availability

Fig. 4 presents the availability of appropriate schools among disabled children in Dodoma and Chamwino, and whether the schools were near or far from the areas where the children with disability lived.

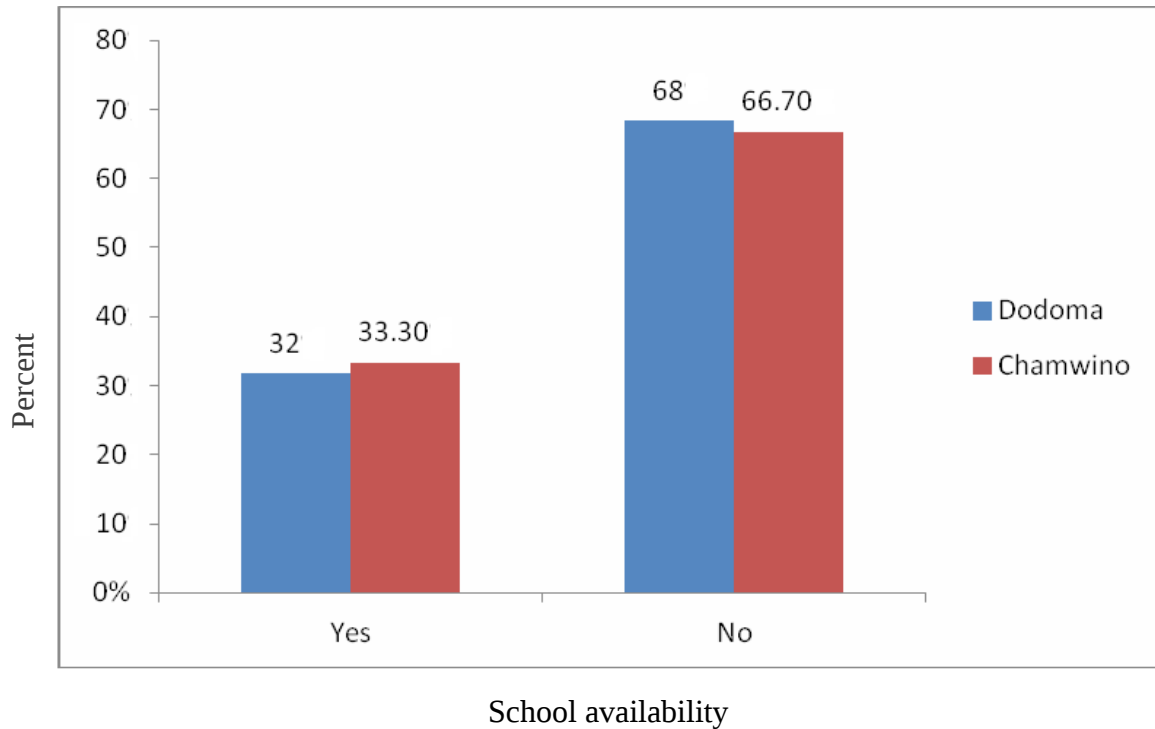


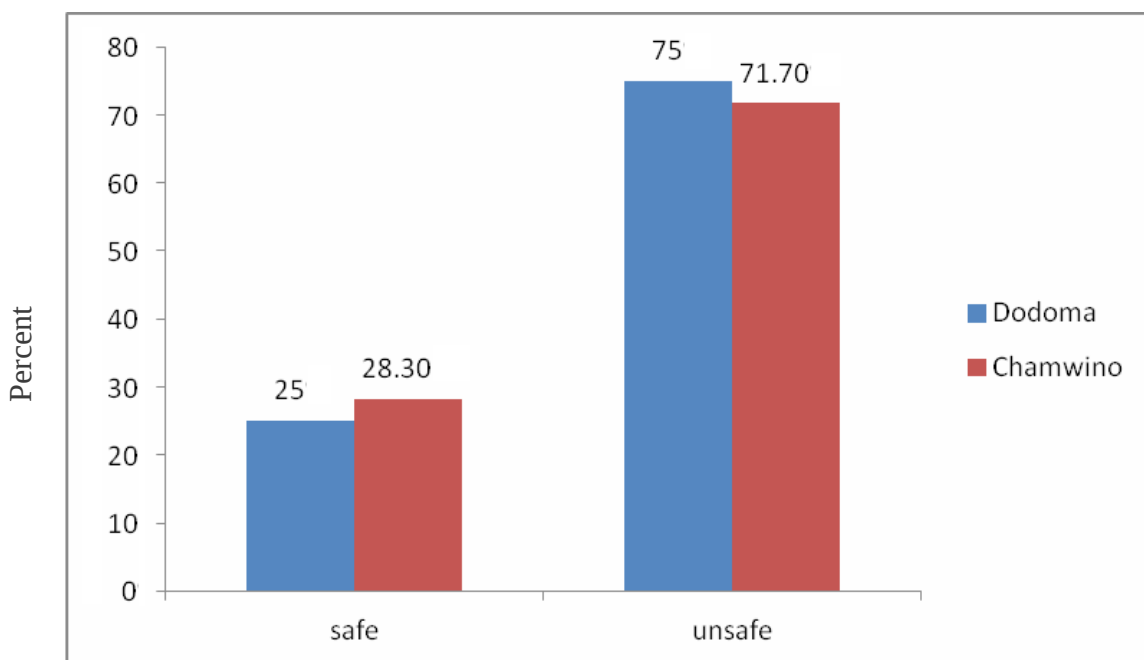
Figure 2: Whether there were enough appropriate schools for disabled children

The findings in Fig. 2, on whether there were enough schools which were appropriate to disabled children show that about two-thirds (68%) of the respondents in Dodoma responded negatively while 32% of them responded positively, and 66.7% in Chamwino responded negatively while 33.3% responded positively and most of the respondents who responded positively were those living near Buigiri Primary School which is a school for blind children. The findings show that lack of appropriate schools for the disabled is one of the factors that cause lack of access to primary education among disabled children. This shows that the disabled are more likely to be forgotten in the education system. The education policy is sound but the law to practice it is a problem (Mwananchi, 2011).

4.6.1.3 Security for disabled children

From the data collected in this study it was found that, for many disabled people in Dodoma Region, safety and security is a right frequently denied. Violence and resentment

can be daily experiences on the street, on public transport, at work, at home, on the web so much so that many disabled people begin to accept it as a part of their everyday life. Disabled people including those who have not experienced such behaviours directly are all too often forced to go to extraordinary lengths to avoid it, thereby limiting their own lives and lives of others' (Equality and Human Rights Commission, 2009).



Safety among disabled children

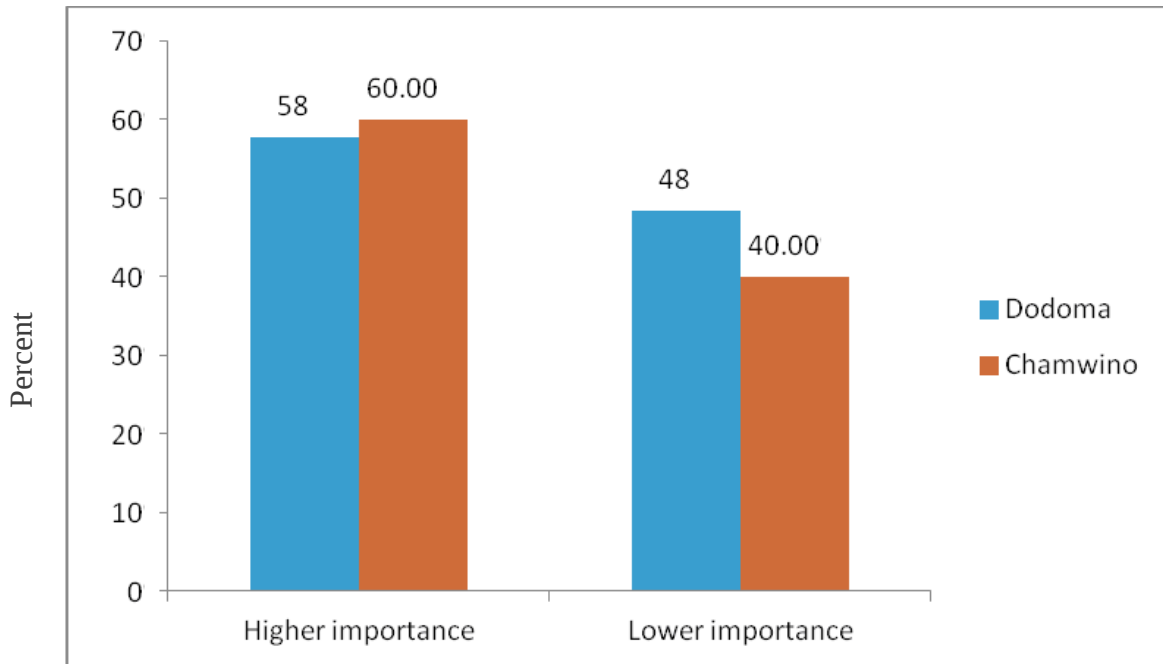
Figure 3: Way to school and the environment which a disabled child lives in

During the study, the respondents that were teachers, education officers and parents/guardians of the disabled were asked about the environment and the school which disabled children attended. The majority of the respondents (75%) from Dodoma district responded that the surroundings were not safe while 25% said it was safe and (71.7%) from Chamwino argued that the surroundings were not safe while only 28.3% the respondents said that it was safe as shown in Fig. 3. These results show that most of the disabled children are lacking the social security, and this is one of the factors that prohibit

them from accessing primary education. Safety is one of the factors which can influence access to primary education among disabled children; if there is good security eventually children can go to school, and this puts together everything from home to school, but if there is no security this may lead to disabled children staying at home and not going to school to avoid any harm which might occur to them. Therefore, if security among disabled children is maintained then it could help to increase the rate of enrolment among disabled children. Only by extending the same expectations of safety and security to disabled people as to everyone else can we truly come to address the deficits in our current approach and wake up to the need to act (Phillips, 2009).

4.6.1.4 Awareness on the importance of education

The results in Fig. 4 depict the responses obtained on the awareness of the importance of education among disabled children. From the time children are pre-scholars and throughout their school years, the job of exposing them to the world around them is an essential pre-requisite or foundation one to learning that is often neglected by parents who are not conscious of this need (Cusimano, 2009).



Responds regarding importance of education among disabled children

Figure 4: Scores on overall importance of education among disabled children

As seen in Fig. 4, the majority (55.8%) of the respondents from Dodoma and (60%) from Chamwino said that education to disabled children was more important while 48% of the respondents from Dodoma and 40% from Chamwino said it was less important. The findings show that the respondents were aware that education is important to all human beings as it helps people to cope with the communities and life hardship. The main aim of education is to instill in them confidence and broaden their outlook, so that they can withstand the vagaries of life and be more productive human resources.

4.6.1.5 Means of transportation

The results on the means of transportation used by the disabled children to go to school are presented in Table 8. It is experienced that improvements to the mobility of children with disabilities and their use of facilities and services in the built environment clearly lag

behind legal provisions. Even if buildings are barrier-free, reaching them is often a major problem due to unfriendly roads and transport systems.

Table 8: Means of transportation used by disabled children from home to school

Means of transportation	Number	Percent (%)
Foot	91	75.8
Bus	24	20.0
Bicycle	2	1.7
Tricycle	3	2.5
Total	120	100.0

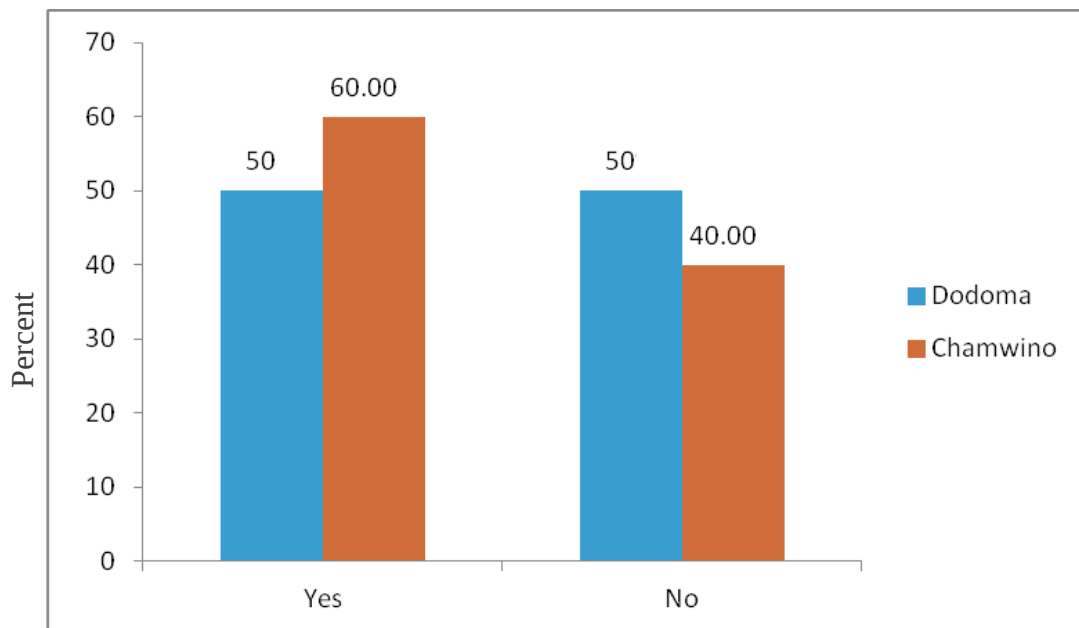
From the results shown in Table 8, more than three-quarters of disabled children (75.8%) used foot as their means for transportation to go to school or anywhere else in society. Out of these 75.8% there were also the crippled who couldn't even walk on two legs because they were either short or had been amputated and, therefore, they had to crawl on the ground had stones and dust and at the end of the day they ended up having wounds. This also affects access to primary education among disabled children. Other means of transportation are as shown in the Table 8. The results show that means of transportation play a role as one of the factors which determine access to primary education among disabled children.

4.6.1.6 Teachers' experience to handle disabled children

The respondents were asked if there were enough teachers for disabled children, and the results are presented in Fig. 7. In any country in the world, and especially where material resources are scarce, the key resource in the learning environment is experienced teachers. It is important that teachers have commitment to teaching all children. Where teachers can

receive relevant pre-service and in-service training and have access to continuing support, they are well placed to become leaders and pacesetters in provision of education (UNICEF, 2007).

There is no way a teacher can expose all children to everything they need to know about the basic subjects of history and science in primary school. Therefore, it is essential that parents should play part in preparing their children and continue to teach and expose them to the world around them from pre-school to grade twelve (Cusimano, 2009).



Experience teachers present for disabled children

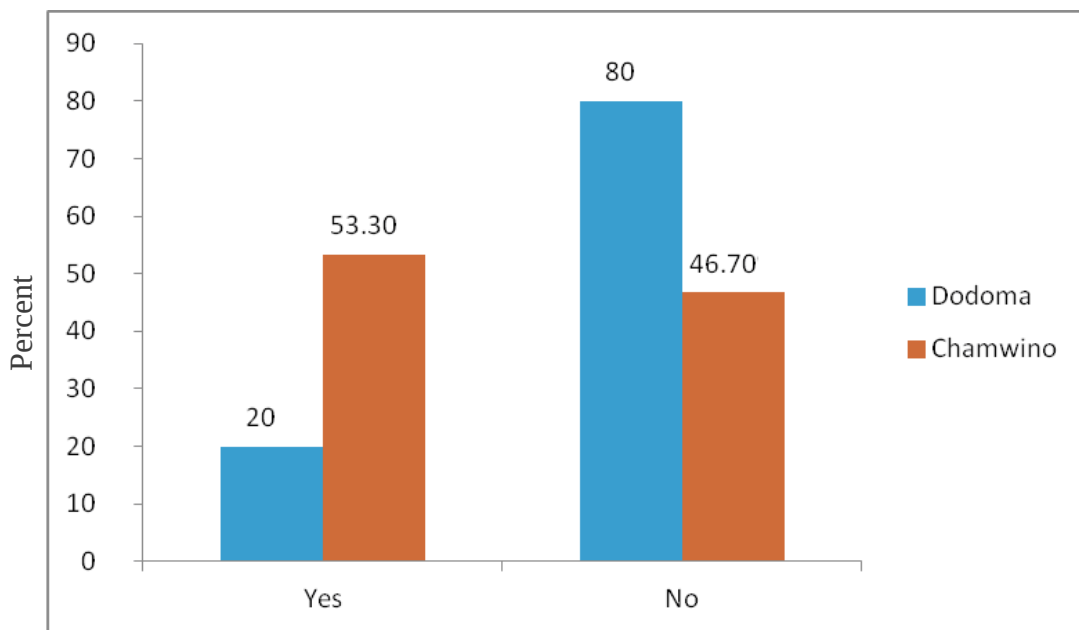
Figure 5: Enough teachers present for disabled children

The results in Fig. 5 show that 50% of the respondents from Dodoma and 60% from Chamwino indicated that there were enough experienced teachers to handle disabled children while 50% from Dodoma and 40% from Chamwino indicated that the number of experienced teachers was not enough. Most teachers are those who passed through teachers' colleges but not trained to handle disabled children. Disabled children need extra care and supervision in the whole system of education. Teachers need to be trained on

some special skills like the sign language so as to be able to teach effectively children with hearing impairment. Availability of capable teachers is one of the factors which influence access to primary education among disabled children.

4.6.1.7 Teaching aids

The respondents were asked if there were enough teaching aids for disabled children in primary schools. The findings show that special equipment or teaching aids and facilities for children with special needs including the disabled children in schools were either not available or in dilapidated conditions.



Availability of teaching aids

Figure 6: Enough teaching aids being present for disabled children

From the results in Fig. 6 most of the respondents (80%) from Dodoma indicated that there were not enough teaching aids for disabled children which caused more difficulties for disabled children to access primary education; 20% of respondents from Dodoma and 53% from Chamwino indicated that there were enough teaching aids for disabled children. Teaching devices are extremely important in school for more understanding for children

with disabilities. Therefore, teaching aids are also a determinant of access to primary education among children with disabilities.

4.6.2 Cultural factors

4.6.2.1 Local traditional practices and attitude

Among the cultural factors that influence disabled children's access to primary education is attitude. The results in Table 9 show people's attitude towards disabled children.

Table 9: Overall attitude towards children with disabilities

	Number	Percent (%)
Unfavourable attitude	50	41.7
Indifferent attitude	20	16.7
Favourable attitude	50	41.7
Total	120	100.0

The respondents were asked about their own attitude towards disabled children. More than two-fifths (41.7%) of the respondents indicated that the attitude was good/ favourable and the same percent also indicated that the attitude was bad/ unfavourable while 16.7% of the respondents remained indifferent as shown in Table 9. All in all the results show that people need to be informed or educated in order to have favourable attitude towards disabled children's education which in the end will help increase the rate of enrolment in primary education among disabled children.

4.6.3 Economic factors

Economic problem is a major and fundamental reason why children cannot continue with their education or not go to school at all.

4.6.3.1 Poverty and distance from home to school

Table 10 shows the reasons mentioned by the respondents on the factors that Prohibit disabled children from going to school.

Table 10: Factors that prohibit disabled children from going to school (n = 120)

Factors prohibiting disabled children from going to school	%
Poverty	13.1
Lack of support from the government	13.1
Inaccessibility of the school compound	13.1
Lack of appropriate schools	12.2
Lack of teaching aids	10.3
Lack of safety	9.3
Wrong beliefs	4.2
Desperate parents	3.5
Lack of transportation facilities	1.8
Discrimination	1.5
Inability to understand	1.5
Shame	0.7

The results in Table 10 show that poverty is among the most important factors prohibiting disabled children from going to school. Other most important factors are long distance to school, lack of teaching aids, transport, and lack of appropriate schools. Poverty is the cause of many things. Because of poverty there are not enough schools appropriate for disabled children. It is also because of poverty that there are not enough teaching aids for disabled children. Likewise, long distance to school needs transport, but because of poverty there are few or no transport facilities. Therefore, reduction of poverty could help many things, including increased access to primary education among disabled children.

4.7 Extents to which some Social, Cultural and Economic Factors Influence Disabled Children's Access to Primary Education

Table 11 show the relationship between wards of residence and the access of primary education among disabled children.

Table 11: Cross tabulation showing relationship between wards of residence and disabled children access to primary education

		Whether disabled children go to school		Total (%)
		Yes (%)	No (%)	
Chamwino district	Wards of residence			
	Buigiri	28	9	37
	Msanga	12	12	24
	Chang'ombe	19	3	22
Dodoma district	Chinangali	7	1	8
	Makole	7	0	7
	Kikuyu	6	1	7
	Miyuji	9	1	10
	Mnadani	5	0	5

Pearson chi-square = 16.580 (p = 0.020); Likelihood ratio = 18.837 (p = 0.013)

Table 11 is about relationship of disabled children going to school in the eight wards where the study was conducted. The findings show that many disabled children were going to school in Chamwino District as compared to Dodoma District because there is a school for the disabled at Buigiri. In Table 11, since level of significance (p- value) for Pearson's chi-square was less than 0.05 (p = 0.02), which is the lowest level of significance, there was significant association between wards of residence and access to primary education among disabled children at the 5% level of significance. This shows that school availabilities helps a lot in increasing access to primary education among disabled children.

There is a need for extensive education programme to better inform ordinary citizens about their rights and the rights of others, notably persons with disabilities, about the free and basic education and other human rights and fundamental freedoms. It is indeed clear that people are not in a position to exercise their rights if they are not aware of those rights thus making human rights education an essential requirement (FI, 2009).

Table 12: Reasons for disabled children not going to school in Dodoma and Chamwino

Reasons for disabled children not going to school	Number	%
Poverty of parents/guardians	21	15.7
Lack of awareness	10	7.5
Lack of safety	9	6.7
Fear for accidents	10	7.5
Long distance	21	15.7
Inability to walk	13	9.7
Inability to talk	10	7.5
Lack of teachers	16	11.9
Lack of appropriate schools	24	17.9

According to the data given in Table 12, poverty is among the factors which affect the extent of access to primary education among disabled children which was said by 15.7% of the respondents. Also lack of appropriate schools for children with disabilities affects the accessibility of primary education among disabled children; this was said by 17.9% of the respondents. The absence of good competent teachers also affects the accessibility of primary education among disabled children; it was said by 11.9% of the respondents. Other factors include lack of teachers (11.9%), long distance to school (15.7%), inability to talk (7.5%), lack of awareness (7.5%), and fear of accidents (7.5%).

4.8 Odds of having access to primary education

The odds of disabled children having access to primary education were determined using binary logistic regression by which the modal and variables presented in Section 3.7 were used. One of the vital outputs of the binary logistic regression model was the case processing summary, which is presented in Table 13 and shows that all the 120 cases were included in the analysis.

Table 13: Case Processing Summary

Un-weighted Cases(n=120)	Percent (%)
---------------------------------	--------------------

Selected Cases	Included in Analysis	100.0
	Total	100.0
Unselected Cases		0.0
Total		100.0

Another output was the Omnibus test of the coefficients of the model. The Omnibus test is a test of the capability of all predictors (independent variables) in the model to jointly predict the response (dependent) variable. A finding of significance means that there is adequate fit of the data to the model and that at least one of the predictors is significantly related to the response variable (Garson, 2008). According to this explanation, and by looking at the results in Table 14, which show that there was significance at the 5% level ($p=0.023$), the data entered into the model adequately fitted the model, and at least one of the predictors was significantly related to the response variable.

Table 14: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	17.818	8	0.023
	Block	17.818	8	0.023
	Model	17.818	8	0.023

Moreover, the model summary, which is presented in Table 15 showing Cox & Snell R square and Nagelkerke R square, was chosen as an important output of the binary logistic regression model. The Cox-Snell R^2 and Nagelkerke R^2 are attempts to provide a logistic analogy to R^2 in OLS regression; hence are called pseudo R^2 . Nagelkerke R^2 is a modification of Cox-Snell R^2 to assure that Cox-Snell R^2 varies from zero to one, as does R^2 in OLS regression. If Cox-Snell R^2 is not modified, its maximum value is usually less than 1, making it difficult to interpret.

Table 15: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	110.141(a)	0.138	0.210

Garson (2008) notes that Nagelkerke R^2 is normally higher than Cox-Snell R^2 and is the most-reported of the pseudo R^2 estimates. Therefore, based on the results in Table 15, which show that Nagelkerke R^2 was 0.210, it means that the independent variables entered in the model explained 21% of variance in the dependent variable.

The results of Hosmer and Lemeshow Test (Table 16) were another output of the model. The Hosmer and Lemeshow test, which is also called Hosmer and Lemeshow chi-square, is a test of goodness-of-fit of a logistic regression model, which works by comparing the observed and fitted counts of values according to the estimated probabilities of success. The Hosmer and Lemeshow goodness-of-fit test divides subjects into deciles (as seen in Table 16) based on predicted probabilities, then computes a chi-square from observed and expected frequencies. A finding of non-significance means that the model adequately fits the data (Hosmer and Lemeshow, 1980, cited by Agresti, 2002).

In this study, the value of the Hosmer and Lemeshow chi-square obtained was 5.660, and it was not significant ($p = 0.685$), as seen in Table 16. Typically, in any case where the Hosmer and Lemeshow chi-square value is greater than 0.05, the goodness of fit is desirable (Garson, 2008). In such cases the implication is that the model's estimates fit the data at an acceptable level (Garson, 2008). Garson (2008) adds that this does not mean that the model necessarily explains much of the variance in the dependent variable, but that it explains the variance to a significant degree. Therefore, according to the explanation

above, the model used in this study, which contained eight explanatory variables and the response variable (access to primary education) adequately fitted the data.

Table 16: Hosmer and Lemeshow Test

S	Chi-square	Df	Sig.
1	5.660	8	0.685

Table 17: Contingency Table for Hosmer and Lemeshow Test

		Whether disabled children were going to school = Yes		Whether disabled children were going to school = No		Total
		Observed	Expected	Observed	Expected	
		Step 1	1	12	11.781	
	2	10	11.193	2	0.807	12
	3	12	10.682	0	1.318	12
	4	9	10.283	3	1.717	12
	5	10	10.000	2	2.000	12
	6	10	9.474	2	2.526	12
	7	10	8.979	2	3.021	12
	8	9	8.453	3	3.547	12
	9	6	6.674	6	5.326	12
	10	5	5.482	7	6.518	12

Other vital outputs of the model were Wald statistics, which are presented in Table 17. The Wald test is an alternative test which is commonly used to test the significance of individual logistic regression coefficients for each independent variable (that is, to test the null hypothesis in logistic regression that a particular effect coefficient is zero). The Wald statistic is the squared ratio of the unstandardized logistic coefficient to its standard error. Wald statistic corresponds to significant testing of b coefficients in Ordinary Least Square (OLS) regression. Wald coefficients associated with individual independent variables help us realise the relative importance of each independent variable. In other words, a Wald coefficient is a measure of the unique contribution of each independent variable in the

context of the other independent variables and holding constant other independent variables. A bigger Wald statistic implies that the independent variable associated with it has high contribution to the occurrence of the dependent variable, which in this case is access to primary education by disabled children.

Table 18: Variables in the equation

Variables entered in the binary regression model	B	S.E.	Wald	Sig.	Exp(B)
Household income per capita	0.000	0.000	2.021	0.155	1.000
Accessibility to school compound by disabled children	0.124	0.061	4.138	0.042	1.132
Approximate distance from home to school	0.008	0.018	0.205	0.651	0.992
Overall scores on importance of taking disabled children to school	0.025	0.068	0.130	0.718	0.976
Overall scores on attitude towards disabled children	0.091	0.058	2.441	0.118	1.095
Whether there were enough teachers for disabled children	0.062	0.789	0.006	0.937	1.064
Whether there were enough teaching aids for disabled children	0.428	0.772	0.308	0.579	1.535
Way to school and environment which a disabled children live in	0.231	0.532	0.190	0.663	1.260

From the results in Table 18, overall scores on school and its accessibility to disabled children had a significant impact on the likelihood of disabled children going to school ($p=0.042$). Moreover, it is the same variable that had the biggest impact (Wald statistic = 4.138) of all the other variables that were entered in the binary logistic regression model. The other Wald statistics and their levels of significance are as seen in Table 18.

In view of the findings as seen in Table 18, the chances of disabled children with different economic, social and cultural factors going to school were not the same as indicated by the Exp (B) values which measure the chances of going to school among disabled children.

The Wald statistics shown in Table 18 are also presented in Fig. 7 to illustrate the extent to which each of them contributed to the probability of disabled children in various households having access to primary education. Although all the Wald statistics in Table 18 are positive, the Wald statistics for whether there were enough teachers for disabled children was zero (Wald statistic = 0.006, $p = 0.937$). Since their logistic regression coefficients (B values) were positive implying that they had positive effects on the dependent variable.

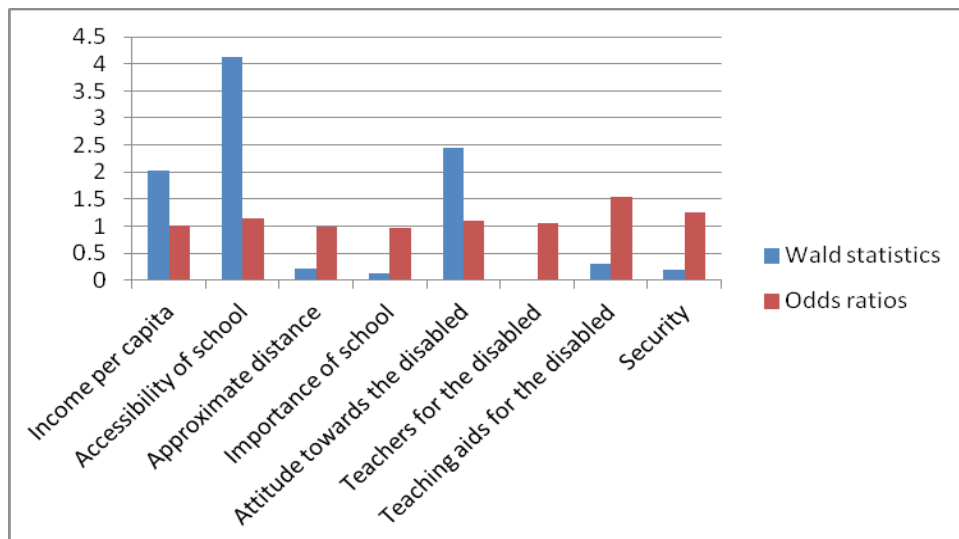


Figure 7: Contributions of independent variables to the odds of access primary education

The data in the Table 18 and in the Fig 7 show that income per capita and overall scores on attitude towards disabled children also contributed positively to the chances of access to primary education. And other factors like long distance to school, teaching aids and absence of teachers show that they affected access to primary education among disabled children to a less extent.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Overview

Based on the study results, a number of lessons regarding determinants of access to primary education among disabled children were drawn. These lessons are important because of their policy implications on increasing access to primary education among disabled children in Tanzania in general, particularly in Dodoma Municipality and Chamwino District where the research was conducted. In this chapter, as conclusions of the study are presented, related recommendations are given in view of the objectives and of the hypothesis of the study. The chapter is organized into: conclusion; policy level recommendations; local government level recommendations; recommendations to development partners; and household level recommendations.

5.2 Conclusion

Education for children with disabilities is not only a basic human right, but it is also essential for poverty alleviation which leads to human development as well as development in a country. Exclusion from the education system and from other services is a major factor exacerbating poverty, especially for individuals with disabilities and their families. Not giving children with disabilities access to a quality education greatly constrains their opportunities to cope with society members. With access to education, children with disabilities have the chance to become active and responsible citizens who can shape their future and claim their rights in employment, politics and other areas. Based on the findings of this study that 77.5% of disabled children had access to primary school,

this shows that people in Dodoma Municipality and Chamwino District have favourable attitude towards primary education among disabled children. Also, based on the findings, it shows that disabled children had access to primary school. However, there were no appropriate schools for disabled children except for the children with visual impairment. And for the available schools the teaching aids were not enough and experienced teachers were hardly available. In view of these findings it is concluded that shortage of appropriate schools for children with various types of disability and shortage of teaching aids are among major factors limiting access to primary education by disabled children.

Other factors constraining access of disabled children to primary education were lack of security, poverty, lack of awareness, long distance to school, lack of experienced teachers because of poor living conditions, low salary, and wrong attitude of the community members towards disabled children. On the basis of this finding, it is concluded that factors affecting access to primary education by disabled children are very many.

Also from the results it was found that the extents to which various factors influence accessibility to primary school vary from one place to another. Inaccessibility of school compounds had the highest impact on the chances of disabled children accessing primary education (Wald statistic = 4.138, $p = 0.042$). In view of this result, it is concluded that inaccessibility of school compounds is the most important factor affecting access to primary education among disabled children.

5.3 Recommendations

Based on the above conclusions the following recommendations are made to help different development stakeholders at various levels, including community members, increase

access to primary school among disabled children and thereby substantially to the whole system of education.

5.3.1 Recommendations at policy level

- Based on the conclusion that some of the disabled had no access to primary education, it is recommended that the inclusion of children with disabilities is not simply a charitable or helpful act. It is a process inspired by the promotion of human rights that benefit the entire population of a country including the disabled people and provides a clear statement of a government's commitment to all its citizens and to the principles of good governance. Whatever is given to other able-bodied people as their right should also be given to disabled children/people because it is their rights also.
- In view of the conclusion that different factors including awareness influence access to primary education, it is recommended that The Ministry of Education should raise public awareness on the importance of education to disabled children and use the media, religious scholars, civil society institutions, local elders, and other means to improve people's awareness.
- In accordance with the conclusion that there were not enough teachers to teach disabled children, it is recommended that the government should increase the number of qualified teachers to teach the disabled children in primary schools. Most of the disabled children don't get access to primary education and on the few how have access there are too few teachers to teach them. There are a lot of teachers graduating from colleges and university but there are none going to teach

the disabled children. It is also recommended that sign language should be one of the courses taught in colleges and universities, because most of teachers do not have this knowledge and this may cause lack of good understanding between teachers and pupils. Therefore, sign language should be taught for communication between teachers and disabled (hearing impairment) children.

- According to the conclusion that current salaries of school teachers are very low and are not enough to provide them with adequate standards of living, it is recommended that the government should establish a suitable salary for a teacher so that their right to an adequate standard of living can be relatively realized; special allowance should be given for teachers who teach children with disabilities.
- In view of this conclusion, it is recommended that school compounds should be improved for more accessibility by disabled children. The improvement should include having various structures to facilitate access of school compounds by disabled children.

5.3.2 Recommendations to local government

- Based on the conclusion that there were not enough schools for disabled children, it is recommended that the few schools available should be much improved, and new schools should be established according to need and due attention should be paid to the location of such schools so that they can be located relatively near and rather equally accessible to all schoolchildren of all kinds. School environment should be improved so that it can be accessible and friendly to disabled children; cemented areas should be built for children who use wheel chairs so as to make it

easy for them to access the school environments, stairs should be removed to the environment; where disabled children live in.

- On the basis of the conclusion that teaching aids are not enough, it is recommended that teaching aids in schools, especially schools of children with disability, should be improved. The hearing devices should be provided in schools for hearing impaired children. Braille for children with visual impairment also should be provided in these schools. Wheel chairs for crippled children should also be provided. Also the government should set aside the budget of training teachers who will be teaching disabled children.

5.3.3 Recommendations to development partners

- Development partners are urged to make sure anything especially money which is sent to help vulnerable groups in developing countries reaches the target groups. Most of this money does not reach the targeted group and turns out to be used by people who do not even need it. Therefore, appropriate measures should be taken to punish people who squander this fortune which is not theirs' by any chance. More institutions including churches from developed countries should put more effort in helping disabled children in education, health and all other services needed by them.

5.3.4 Recommendations to community and households

- Based on the conclusion that people have unfavourable attitude towards disabled children, it is recommended that communities should be aware that disability is just a condition which can happen to anyone and, therefore, disabled children should be

treated as normal human beings and discrimination against them should stop. All the wrong beliefs against these children have to be stopped. It is also recommended that parents should take their children to school regardless of what disability condition they are in, and even trying to teach them at home.

- From the conclusion that most of disabled children are in fear of getting harmed, it is recommended that the security forces in the community and the community members should pay attention to the physical security and safety of the disabled children and help them so that they do not feel left out. All children need love and care and, therefore, so do the disabled children.

3.3.5 Recommendations for further research

- From the conclusion that parents attitude is one of the factor that prohibit disabled children in getting access to primary education; awareness should be raised among parents and community on the importance of education to disabled children. There also should be a law forbidding the hiding of disabled children in the house instead these children should have freedom to their own lives. Also all disabled people should be registered and valid information about them should to be available so that, researchers for further research studies about the disabled have not have to face any difficulties in searching for disabled children with their information.

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APPENDICES

Appendix 1: Operational definitions of variables

S/N	Concept	Operational definition
1	Age	Number of years since one was born
2	Sex	Being male or female in the biological sense
3	Parenthood	Number of parents
4	Household size	Members living in one family
5	Main occupations of parents/guardian	Activities that one is assigned/engaged with
6	Access to primary education	Pursuing primary education
7	Household income	Annual income received in the house.
8	Cripple	Lost of limb/s
9	Deaf	Healing disability
10	Blind	Visual disability
11	Accessibility of the area	Reaching the area with no difficulties
12	Traditional belief	Worship traditional culture
13	Community support	Help from the community
14	Long distance	Kilometres from home to school
15	Security	Security in the area
16	Teaching aid	Material for teaching
17	Awareness	Knowledge on the importance of education among disabled children
18	Parents' attitude	Perception of parents towards disabled children

- 2. Parenthood
 - 1. Both parents
 - 2. Only mother
 - 3. Only father
 - 4. No parent

- 3. If the disabled does not live with any of his/her parents, with whom does he/she live?
 - 1. Uncle
 - 2. Aunt
 - 3. Brother
 - 4. Sister
 - 5. Others (Specify)

PART B: KNOWLEDGE ABOUT ECONOMIC AND SOCIO-CULTURAL FACTORS WHICH INFLUENCE DISABLED CHILDREN 'S ACCESS TO PRIMARY EDUCATION

- 4. Are there schools which can be appropriate for your disabled child (ren) nearby?
 - 1. Yes
 - 2. No

- 5. Is/Are your disabled child (ren) going to school?
 - 1. Yes
 - 2. No

- 6. If No to Question 5, please tell me why
.....
.....
.....
.....

- 7. If your disabled child (ren) is/are going to school, are there enough teachers for disabled children?
 - 1. Yes
 - 2. No

- 8. If your disabled child (ren) is/are going to school, are there enough teaching aids for disabled children?
 - 1. Yes
 - 2. No

- 9. What is the approximate distance from home to school?m or km

- 10. How is the way to school, or the environment which the disabled children live in?
 - 1. Safe
 - 2. unsafe

11. What is the means of transport used by children with disabilities to get to school?

1. Foot
2. Bus
3. Bicycle
4. Tricycle
5. Others (specify)

12. Do/Does the disabled child (ren) go to school alone?

1. Yes
2. No

13. Extent to which school and its facilities are accessible for children with disabilities?

Indicator of accessibility	Max. score	Actual score
Presence of structures with slopes for disabled children to access classrooms	5	
Presence of special toilets for disabled pupils	5	
Presence of cemented area for wheelchairs	5	
Presence of hearing devices for children with hearing disabilities	5	
Presence of braille for children with visual impairment	5	
Presence of widening doors and installing ramps	5	
Presence accessible rooms and facilities - for example, by installing a stair lift or providing a downstairs bathroom or class rooms	5	
Total	35	

14. Please estimate your household income from all economic activities done by all your household members

Economic activity	Family member who does the activity	Total costs per year	Gross monetary value per year

15. Which of the assets listed below is owned in your households

Asset	Number	Monetary value of all the assets owned
House with an iron sheets roots		
Car		
Motor cycle		
Bicycle		
Dairy cattle		
Goat		
Radio		
TV		
Mobile phone		
Total		

16. Can you afford paying for school fees for your disabled child (ren)?

- 1. Yes
- 2. No

17. Can you afford paying for stationery for your disabled children?

- 1. Yes
- 2. No

18. Can you afford paying for meals for disabled children while they are at school?

- 1. Yes
- 2. No

19. If your disabled children are going to school by bus can you afford the transportation fare for them?

- 1. Yes
- 2. No

20. What are the other factors hindering the disabled children's access to primary education?

.....

.....

.....

I. LIKERT SCALE: TO DETERMINE ATTITUDE TOWARDS CHILDREN WITH DISABILITIES

21. Please indicate whether you strong disagree, agree, are undecided, agree or strong agree with each of the following statements:

Attitudinal statements	SD	D	U	A	SA
1. Having a disable child is something to be ashamed of	-				
2. Children with disabilities are born to stay at home	-				
3. Education is important to disabled children	+				
4. It is okay to hide disabled children in the house	-				
5. It is not a burden to stay with a disabled children	+				
6. Disabled children are in a fear of getting harmed	+				
7. Communities always discriminate against disabled children	-				
8. Disabled children should have their special schools	+				
9. It is not expensive to take disabled children to school	-				
10. Parents of disabled children should take a lead to see to it they go to school	+				
11. It is very expensive to educate disabled children	+				
12. Educating disabled children it is a waste of money	-				
13. Disabled children are always the slow learners	-				
14. Disabled children can perform well in school	+				
Total					

1. SD = STRONG DISAGREE, 2. D = DISAGREE 3. U = UNDECIDED 4. A, = AGREE 5.SA = STRONG AGREE

22. Index scale: awareness

Statement	Maximum scores	Actual scores
1. If disabled children are taken to school they can later on be self-reliant	5	
2. If disabled children are taken to school they can later on help their parents and relatives	5	
3. If disabled children are taken to school they can contribute to the national labour force	5	
4. If disabled children are taken to school they can later only defend their own rights	5	
5. If disabled children are taken to school they can later only educate other disabled people	5	
Total scores		

THANK YOU FOR YOUR COOPERATION

Appendix 3: **A checklist of items for discussion**

with key informants (*ward/Mtaa/village executive officer, school*

teacher for Research on:

Economic, Social and Cultural Determinants of Access to Primary Education among Disabled Children in Dodoma Region, Tanzania

District Ward Date of

Interview

1. Extent to which children with disabilities have access to primary Education
2. What might be the factors for disabled children not getting access to primary education
3. Economic, social and cultural factors hampering disabled children's access to primary education
4. Efforts made by NGOs and CBOs to increase the disabled children's access to primary education
5. Efforts made by the government and members of the communities to support and help the disabled children to get more access to primary education
6. Whether the learning environment is conducive for both children the able and the disabled
7. Attitude of parents towards their disabled children going to school
8. Whether there are enough teachers capable to educate children with disabilities
9. Whether there are enough teaching aids for children with disabilities
10. What measures should be taken to solve the problem

THANK YOU FOR YOUR COOPERATION