

PREDICTORS OF ATTITUDES TOWARD DISABILITY AND EMPLOYMENT  
POLICY ISSUES AMONG UNDERGRADUATE STUDENTS AT  
THE UNIVERSITY OF NAIROBI

By

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Signed: George Isaboke Mamboleo

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## ABSTRACT

Disability rights issues are an emerging area of discourse in Kenya. Persons with disabilities in Kenya face many barriers to integration into the larger Kenyan society possibly due to barriers such as societal negative attitudes. Research has indicated that the greatest barrier to rehabilitation of persons with disabilities is negative attitudes prevalent in society. Owing to their composition and enrolment, current University of Nairobi students are or will be engaged in daily decision making as leaders in the Kenyan society, some of which may directly affect the lives of persons with disabilities. It is therefore imperative to study their attitudes toward disability, especially at a time when the Kenya Persons with Disabilities Act of 2003 is being implemented. The main purpose of this study was to examine the general attitudes toward disability and attitudes toward organizational policies among University of Nairobi undergraduate students. Participants were a convenience sample of students enrolled in Sociology, Social Work, Psychology, Political Science, and Public Administration majors. Quantitative data analyses were used to study attitudes. The Attitudes Towards persons with Disability (ATPD) Form-O (Yuker, Block & Campbell, 1960) was used to study general attitudes. The Attitudes Towards Employing Persons with Disabilities (ATEPD) measure (Loo, 2002) was used to study attitudes toward organizational policies and procedures for employees with disabilities. Results suggest that Kenyan students possess less positive attitudes toward disability than the normed populations. Seven independent variables (i.e., age, marital status, educational focus, type of enrollment, socio-economic status, place where one grew up, and area of current residence) were positively related to the dependent variables (i.e., general attitudes toward disability as well as several items regarding attitudes

toward organizational policies and procedures for employees with disabilities). Other six independent variables (i.e., gender, level of enrollment, employment affiliation, perceived knowledge of disability, previous contact with disability, and self-knowledge of disability law) were not related to the dependent variables. Multiple regression analysis results indicated that only age was a predictor of attitudes toward disability among the Kenyan students. Implications for education, policy and future research are provided. The study contributes to mixed findings regarding attitudes toward disability.

## CHAPTER ONE: INTRODUCTION

### Background of the study

Disability rights issues are a new area of discourse in Kenya. Although these issues have begun to be recognized in the country because of local and international efforts aimed at inclusion of persons with disabilities in society (Manyibe, Mamboleo, Mugoya, & Kampfe, (2009), this population faces many challenges in its quest for equalization of opportunity. A report entitled “State of Disabled People’s Rights in Kenya” (Macha, Kieti, & Ngunyi, 2007) provides a summary of the attitudinal and institutional barriers facing individuals with disabilities from their perspective. According to the study, approximately 74% of people with disabilities reported having been denied the right to make decisions on issues that affect their lives. Eighty-six (86%) felt they were being unequally treated including by both society and their own families’ members. Eighty (80%) indicated having experienced some form of segregation, isolation, and a lack of support for their needs because of their disability status. Fifty-four (54%) of respondents indicated that they had been given a disability label due to the disability status. Seventy-two (72%) of the respondents indicated that the abuse and discrimination they faced seemed to originate from the negative attitudes toward disabilities prevailing in Kenyan society.

Findings from another recent study from Kenya indicated that people without disabilities living with and interacting with those with disabilities tended to treat them differently based upon their disabilities status (Government of Kenya, 2008). Negative attitudes toward persons with disability prevalent in any society tend to isolate these individuals from mainstream society (Venter, 2002). Furthermore, negative societal

attitudes toward disabilities inhibit the success of rehabilitation of persons with disabilities (Chubon, 1992). Such attitudes are embedded in cultural beliefs, taboos, rites of passage, and religion society (Ingstad & Grut, 2007) and tend to create obstacles to the participation of persons with disabilities in society (Ingstad & Grut; Martin, Rowell, Reid, Marks, & Reddihough 2005; Morumbasi, Mbatia, Tororei, Kamau, & Burugu, 2007). Other challenges typical to developing countries include lack of physical accessibility (Ingstad & Grut), access to education, participation in social cultural practices (Dutch Coalition on Disability and Development (DCDD, 2006), and access to employment (Ingstad & Grut; DCDD). The DCDD further indicates that many public buildings, roads and other infrastructure in Kenya are inaccessible to persons with disabilities. The organization further indicates that the electronic and print media are also inaccessible to these individuals, a situation that prevents them from participating or benefiting from information due to lack of brailing of printed information, sign language interpretation, and alternative printing such as large printing. Barriers to employment among persons with disabilities in Kenya lead to a vicious cycle of poverty (Council on Exceptional Children, 2006; Kenya Programmes of the Disabled, 2003; Ingstad & Grut, Macha, Kieti, & Ngunyi, 2007).

### Statement of the Problem

Many developed countries have, in recent years, adopted legislation that promotes the rights of individuals with disabilities to full and equal participation in society. Such legislation includes the United States' Americans with Disabilities Act of 1990, the Canadian Charter of Rights and Freedoms (Section 15), and United Kingdom's Disability

Discrimination Act of 1995 (Loo, 2002, 2004). Some countries in Africa, including Kenya, have also made strides in introducing disability-related legislation. In Kenya, the Persons with Disabilities Act (PDA) was enacted in 2003. The Act defines disability as “a physical, sensory, mental or other impairment, including any visual, hearing, learning, or physical incapability, which impacts adversely on social, economic or environmental participation” (Kenya Law Reports Online, 2008). The Act has three broad aims: (a) to provide for the rights and rehabilitation of persons with disabilities; (b) to achieve equalization of opportunities for persons with disabilities; and (c) to establish the National Council for Persons with Disabilities. Section 12 of the PDA promotes access to equal opportunities in employment as well as treatment in the workplace, regardless of disability. Section 15 prohibits discrimination against disability in relation to recruitment, pay, promotion and training, among other organizational functions (Kenya Law Reports online, 2008). Furthermore, the Act obliges employers to allocate a percentage of jobs that are available to individuals with disabilities (Freedom House, 2006).

Although all these issues are clearly articulated in the Act, it is not clear if there is conformity with these provisions (Freedom House). According to the ILO (2004), disability legislation in developing countries is not implemented once it is enacted. This is the case in Kenya where, although Persons with Disability Act was enacted in 2003, it remains only on paper (Daily Nation, 2007).

As present and future generations of leaders, students at the University of Nairobi are influencing/will influence the lives of persons with disabilities through implementation of policies such as the PDA that can enhance the lives of persons with disabilities. A literature review in this area, however, did not yield any study of current or

future Kenyan leaders' attitudes toward general disabilities and toward organizational policies and procedures for employees with disabilities. According to findings from a recent study in Kenya among persons with disabilities (Kieti, & Ngunyi, 2007), it appears that there are negative attitudes toward this population. This comes at a time when the disability law is being implemented. This may imply that people in positions to implement disability law, such as present and future leaders, may not be receptive to the new law's provisions. It is, therefore, imperative to study attitudes of these present and future leaders toward general disabilities and their attitudes toward organizational policies and procedures for employees with disabilities because they will provide future direction in these aspects.

#### Significance of the Problem

There is no exact figure of people with disabilities in Kenya, but the World Health Organization (WHO) and the Kenya Demographic and Health Survey (KDHS) estimate that about 10% of the country's total population has a form of disability. This is considered to be an underestimate, possibly because of under-detection, because 80% of persons with disabilities worldwide live in low income countries (World Health Organization, 2005). With a population estimated at 32.2 million in 2003 (Economic Survey, 2003), approximately 3.2 million persons in Kenya have a disability (Macha, Kieti, & Ngunyi, 2007; Manyibe, Mamboleo, Mugoya, & Kampfe, 2009). Due to potential stereotypes about individuals with disabilities (Crudden et al., 2005; Ingstad & Grut, 2007), and because attitudes are related to barriers persons with disabilities face in employment (Altman, 1981; Blanck, 1998; Hernandez, Keys, Belalcazar, 2000;

Morumbasi et. al., 2007; Schur, Kruse, & Blanck, 2005), it is important to examine current and future leaders' attitudes toward disabilities, as well as their attitudes toward organizational policies and procedures for employees with disabilities because negative attitudes are connected to discrimination and biases toward persons with disabilities (Millington, Strohmer, Reid, & Spengler, 1996).

### Purpose of the Study

The purpose of this study is to examine the attitudes toward disability as well as attitudes toward organizational policies and procedures for employees with disabilities and to investigate predictors of attitudes toward disability and disability policy issues among students enrolled at University of Nairobi. This group was selected because (1) it represents the present and future leaders of the country with powers to make decisions that can affect individuals with disabilities, and (2) the University of Nairobi has produced more trained manpower since its inception to date than, any other institution of higher learning in Kenya (University of Nairobi, 2008).

The participants of this study are/or may become future managers of the country and are currently/or will be engaged in recruitment, hiring, promotion, policy formulation, and implementation of policy. It is, therefore, imperative to study their general attitudes toward disability as well as their attitudes toward organizational policies and procedures for employees with disabilities as motivators of their management practices.

Specifically, the study is designed to:

1. Examine the general attitudes toward disability among undergraduate students at the University of Nairobi.
2. Identify the predictors of general attitudes toward disability among students among undergraduate students at the University of Nairobi.
3. Examine the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi.
4. Identify the relationships between independent variables (gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, place where one grew up, area of residence, knowledge of disability, contact with a person with a disability, self-knowledge of disability law, and general attitudes toward disability) and the dependent variable (attitudes toward organizational policies and procedures for employees with disabilities) among undergraduate students at the University of Nairobi.

### Research Questions

On the basis of the foregoing specific objectives, this study seeks to answer the following research questions:

1. What are the general attitudes toward disability among students among undergraduate students at the University of Nairobi?
2. What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi?

3. What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?
4. What are the relationships between independent variables (i.e., demographic variables and general attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?

#### Potential Implications of the Study

The study will add to the growing body of literature regarding attitudes toward disability. Apart from this contribution, the research also will potentially be used by disability stakeholders for disability policy development. These stakeholders include the Government of Kenya, Organizations for Persons with Disabilities (DPOs), Non Governmental Organizations (NGOs), Community Organizations, Church Organizations, International Organizations, among others. Haas and Springer (1998) argue that: Policy research improves public decisions in many ways including the following:

- *Policy research reduces the uncertainty in public decisions in a variety of ways.* For example, public decisions often involve judgments about how large groups of people will be affected, or what large groups need. This information is beyond the personal experiences or knowledge of any one decision maker or group of decision makers. Research is necessary to inform decisions that otherwise would be guesses or pure expression of personal preferences.
- *Policy research increases the logical clarity and consistency of decision makers' understanding of policies or programs.* Public decisions are often characterized by drift (Kress, Koehler, and Spring 1981) that occurs when decision makers lose sight of overall policy purpose or program design in the heat of the day-to-day decisions and situations. Policy analysis can bring the logic of policies and programs back into focus.

- *Policy research can bring new perspectives and understanding of public problems and responses to decision makers.* These new insights thereby affect future decisions.
- *Policy research can improve the quality of public debate by making evidence apart of decision calculus.* An enlightened public is more likely to support conclusions consistent with the findings of policy research (pg. 12-13).

## Definition of Terms

**Acquired Immunity Deficiency Syndrome (AIDS):** This is a set of symptoms and infections resulting from the damage to the human immune system caused by the human immunodeficiency virus (HIV).

**Attitude:** The term is defined as “any belief or opinion that includes a positive or negative evaluation of some target (an object, person, or event) and that predisposes us to act in a certain way toward the target” Plotnik, 1996, p. 540). Attitudes can be either positive or negative. Positive attitudes lead to positive reactions such as acceptance of others while negative attitudes lead to negative reactions such as avoidance and rejection (Yuker, Block, & Young, 1970).

**Attitudes Toward People with Disabilities Scale (ATPD):** A scale that measures general attitudes toward disability. The scale was developed by Yuker, Block, and Campbell in 1960.

**Attitudes Towards Employing Persons with Disabilities (ATEPD):** This is an attitudes scale that measures attitudes toward employing persons with disabilities. The scale was developed by Loo in 2002.

**Central Bureau of Statistics (CBS):** This is the government agency that is responsible for the Kenya Census.

**Central Intelligence Agency (CIA):** An intelligence agency of the United States government. Its primary function is collecting and analyzing information about foreign governments, corporations, and persons in order to advise public policymakers.

**Chedoke-mcmaster Attitudes Toward Children with Handicaps (CATCH):**

The CATCH is a survey questionnaire used to measure attitudes toward disability. It was developed by Rosenbaum, Armstrong, & King, in 1985.

**Christen Blinden Mission (C.B.M.):** This was the first Non-governmental organization (NGO) in Kenya that provided services to persons with disabilities.

**Community Based Rehabilitation (CBR):** A strategy for rehabilitation, equalization of opportunities, poverty reduction and social inclusion of people with disabilities

**Disability:** According to the PDA, disability as “a physical, sensory, mental or other impairment, including any visual, hearing, learning, or physical incapability, which impacts adversely on social, economic or environmental participation.” (Kenya Law Reports Online, 2008). The United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities defines "disability" as a summary of a great number of different functional limitations occurring in any population in any country, of the world. People may be disabled by physical, intellectual or sensory impairment, medical conditions or mental illness. Such impairments, conditions or illnesses may be permanent or transitory in nature (Independent Living, 1993).

**Disability Rights Attitude Scale (DRAS).** This is a scale to measure attitudes and it was developed by Hernandez, Keys, Belalcazar, and Drum in 1998.

**Educational Assessment and Resource Services (EARS):** This is a multi-sector approach that involves teachers, social workers, and medical personnel to improve quality of special education.

**East Africa:** This is a geographical area in Africa that comprises of three countries namely: Kenya, Uganda, and Tanzania.

**Faculty:** A department within a university or college.

**Gross Domestic Product (GDP):** GDP is defined as the value of all goods and services produced within a geographic territory of an economy in a given interval, such as a year.

**Human Immuno-Deficiency Syndrome (HIV):** This is the virus that causes AIDS.

**Implicit Association Test (IAT):** This is a computer based instrument used to measure attitudes toward disability. It was developed by Greenwald, McGhee, & Schwartz, in 1998

**Interaction with Disabled Persons Scale (IDP):** One of the scales that measures attitudes toward disability. The IDP was developed by Gething in 1991.

**International Labor Organization (ILO):** This is an international organization under the United Nations that is responsible to world labor issues.

**Kenya Demographic and Health Survey (KDHS):** This is an annual census in Kenya carried out by the Central Bureau of Statistics to determine the health status of the country.

**Kenya Institute of Education (KIE):** This is the national center of excellence that specializes in educational research and development of curricula as well as other resources to support curriculum below university level of education in Kenya.

**Kenya Institute of Special Education (KISE):** This is government institution in Kenya that is responsible for all special education needs for children with disabilities.

**The University of Nairobi:** This is one of the leading institutions of learning in Kenya. The current study is based at this institution.

**Kenya Shilling (Ksh):** This is the currency used in Kenya. A Shilling is currently equivalent to 78 US Dollars (US \$78).

**Kenya National Association of the Deaf (KNAD):** This is one of the first organizations for persons with disabilities (DPOs) in Kenya formed to advocate for services and participation of persons with disabilities in national development.

**Kenya Society of the Physically Handicapped (KSPH):** This is an organization for persons with disabilities (DPOs) in Kenya.

**Kenya Union of the Blind (KUB):** The union is the oldest organization for persons with disabilities (DPOs) in Kenya having been formed in 1959. The organization represents persons with visual impairment.

**Modified Issues in Disability (MIDS):** The MIDS is one of the scales that measure attitudes toward disability. The MIDS was developed by Makas in 1991.

**National Council for Persons with Disabilities (NCPWD):** This is a body that was established through the PDA to co-ordinate all disability related issues in Kenya.

**Non-Governmental Organizations (NGOs):** An NGO is legally constituted organization created by private persons or organizations with no participation or representation of any government with the aim of participation in a country's development.

**Organizations for Persons with Disabilities (DPOs):** These are organizations that represent persons with disabilities. DPOs was the original acronym which stood for

“disabled persons’ organizations.” The term has changed over time to reflect person-centered language.

**Persons with Disabilities Act (PDA):** This is the most comprehensive disability legislation in Kenya that is meant to advocate for rights of persons with disabilities. It was enacted in 2003.

**Rehabilitation Situations Inventory (RSI):** This is a scale to measure attitudes toward disability. The inventory was developed by Dunn, Umlauf, and Mermis (1992).

**Scale of Attitudes Toward Disabled People (SADP):** This is one of the scales used to measure attitudes toward disability. The scale was developed by Antonak in 1981.

**Social Distance Scale (SDS):** The SDS is one of the scales to measure attitudes toward disability. The scale was developed by Borgardus in 1932 and was further developed by Gordon et al., in 2004.

**Socio-economic Status (SES):** Socio-economic status is often based on family income, parental education level, parental occupation, and social status in the community. For this study it will be based on social status in the community in terms of participants’ personal income.

**United Nations Development Program (UNDP):** This is one of the United Nations agencies with a development mandate to assist poor nations in topic areas such as poverty reduction, democracy, and crisis reduction.

**United Nations Program on HIV/AIDS (UNAIDS):** Also known as the Joint United Nations Program on HIV/AIDS is the United Nations agency that coordinates HIV/AIDS issues around the world.

**United Disabled Persons of Kenya (UDPK):** UDPK is the umbrella body with the capacity for negotiation and advocacy for persons with disabilities in Kenya.

**United Nations (UN):** The UN is an international organization with a mandate to facilitate cooperation in international law, international security, economic development, social progress, and human rights issues. The UN was founded in 1945 to replace the League of Nations, to stop wars between nations, and to provide a platform for dialogue.

**World Health Organization (WHO):** This is an agency within the United Nations that is responsible for global health matters.

## CHAPTER TWO: LITERATURE REVIEW

This chapter provides definitions of attitude, a brief introduction of Kenya, a profile of the University of Nairobi, disabilities in Kenya, a historical overview of disability in Kenya, and some select scales that measure attitudes toward disability and potential predictors of attitudes toward disability and organizational policy are also discussed.

### Introduction to Kenya

#### *Kenya Location and Size*

Kenya is located in the Eastern part of the African continent. The country shares borders with Ethiopia and Sudan to the North; Uganda to the West; Tanzania to the South; Somalia to the northeast; and Indian Ocean to the southeast (Kiima, Njenga, Okonji, & Kigamwa, 2004; Government of Kenya, 2005). The country has a land area of approximately 582,650 km<sup>2</sup>. Approximately 569,250 km<sup>2</sup> is comprised of dry land and approximately 13,400 km<sup>2</sup> is comprised of water. Eighty percent (80%) of the land mass is arid or semi-arid. Only about 20% of land is usable for agricultural production (Government of Kenya).

#### *Physical Features of Kenya*

Kenya consists of a variety physical features that attract tourists, one of the major currency earners to Kenya's economy. Examples are beautiful plain lands that house famous game parks and game reserves; the Great Rift Valley that runs from the northern border to the southern border; Mount Kenya, the second highest mountain in Africa, rising 5,199 meters above sea level; Lake Victoria, the largest freshwater lake in Africa,

which is shared also by Uganda and Tanzania; Lake Nakuru, famous for flamingos; Lake Magadi, famous for soda ash; and rivers such as Sondu-Miriu, Tana and Athi, which generate the hydropower resources of the country (Government of Kenya).

#### *Demographics of Kenya*

In 2007, Kenya's population was estimated at 36.9 million, up from 28.7 million reported in the 1999 national census and from 15.3 million in the 1979 census (Library of Congress, 2007). The population distribution ranges from 230 persons per km<sup>2</sup> in high agriculturally productive areas to 3 persons per km<sup>2</sup> in arid areas (Central Intelligence Agency, 2006). Eighty percent (80%) of the Kenya's population lives in the rural areas. The country's population has high mortality rates, low and declining life expectancy, slightly increased fertility rates, high infant mortality and death rates, and declining population growth rates (which could be attributed to the HIV/AIDS). For example, the population growth rate was projected to decline from 3.6% in 1992 to 1.4% by 2015. The life expectancy at birth is estimated to be 55 years (Central Intelligence Agency). The population in absolute poverty was estimated to be 44.7% in 1992, 52% in 1997, and 56% by 2002 (Library of Congress).

#### *Economy of Kenya*

Agriculture is the foundation of Kenya's economy, accounting for about 26% of the gross domestic product (GDP), whereas manufacturing accounts for about 13% (Central Bureau of Statistics, 2006; Library of Congress, 2007). The Kenyan economy has been characterized by stagnation in economic growth in the last two decades. Between 1997 and 2002, the economy grew by an annual average rate of only 1.5%, below the population growth estimated at 2.5% per annum, thus leading to a decline in

per capita incomes. In 2006, the gross domestic product (GDP) grew by 5.8 %, up from 4.9% the previous year (Central Bureau of Statistics; Central Intelligence Agency, 2007; Library of Congress, 2007). The economy is projected to drop to 4% in 2008 owing to the economic stagnation due to chaos from the disputed 2007 elections (Reuters, April, 3, 2008). Declining economic growth, coupled with increasing inequality in the distribution of income, has led to a rise in poverty levels. It has been estimated that the population in absolute poverty rose from 44.7% in 1997 to 52% in 2002 (Government of Kenya, 2005; 2004). In 2007, poverty was estimated at 56%, which means that approximately 18 million of the 36.9 million Kenyans live below the poverty line (Keizi, 2007).

Approximately 500,000 job seekers join the job market every year, yet only about 80,000 formal sector jobs were created in the last six years, raising unemployment rates (Government of Kenya, 2005). There are fluctuations in rainfall amounts with significant effects on economic production. Many parts of the country cannot produce enough food because of drought resulting in frequent famine. With the arid and semi-arid areas' dependence on livestock production, drought has devastating effects on the economy of these areas (Government of Kenya).

### *Governance of Kenya*

Kenya was under British rule from 1920 to 1963 when it attained independence. The country is a parliamentary democracy with the president as the head of state and government. The president also is the commander in chief of the armed forces (Government of Kenya, 1998). The government consists of the Executive, the Legislature, and the Judiciary branches. The Executive branch is comprised of the President and his cabinet. This arm of government is responsible for the initiation and

implementation of policy. The Legislature (parliament or the National assembly) is made up of 210 elected members, 12 nominated members, and 2 ex-official members (i.e., the speaker of the National Assembly and the Attorney General). This arm of government is in charge for making new laws. The 210 members are elected by popular vote from single-member constituencies, to serve five-year terms; whereas the 12 nominated members are nominated by political parties based on their representation strength (Government of Kenya, 1998). The Judiciary is headed by the Chief Justice and is responsible for the determination of the common law and interpretation of statutes. This arm of government consists of the High court, Court of Appeal, Kadhi's courts, and other lower courts. The High Court is the superior court of record, and has unlimited original authority in civil and criminal matters. The Court of Appeal has authority and powers in relation to appeals from the High Court. The Kadhi's courts, headed by a Chief Kadhi, have authority in the determination of issues of Muslim law regarding to personal status, marriage, divorce, and inheritance (Government of Kenya).

The country is divided into eight provinces for administrative purposes. These provinces are Central, Coast, Eastern, Nairobi, North Eastern, Nyanza, Rift Valley, and Western. Provinces are further sub-divided into districts and divisions. A provincial commissioner heads provinces, while district commissioners as governmental representatives head districts. The districts are further subdivided into divisions, headed by District officers, while Divisions are subdivided into locations and sub-locations which are headed by chiefs and sub-chiefs, respectively (Government of Kenya, 2005).

*Ethnic Groups and Languages of Kenya*

Kenya is comprised of about 43 ethnic groups. These are divided into three major language groups, i.e., Bantus, Cushites, and Nilotes (Finke, 2006; Government of Kenya, 2005). Kenya also is comprised of other people from all over the world, some of whom are Kenyan citizens (Central Bureau of Statistics, 2006; Central Intelligence Agency, 2007; Library of Congress, 2007; Macha, Kieti, Ngunyi, 2007). Ninety-seven (97%) of the population is African (Government of Kenya, 2005). Examples of Bantu-speaking Kenyans are: western (Luhya), highlands (the Kikuyu and the Kamba), and coastal (Mijikenda). The Nilotic speakers are the river-lake (Luo), highlands (Kalenjin), and plains or eastern (Maasai). The Cushitic speakers include the Oromo and Somali (Government of Kenya).

The Kikuyu tribe comprises about 21% of the population, and constitutes Kenya's largest ethnic group. Others are Luhya (14 %), Luo (13%), Kalenjin (12%), and Kamba (11%). Additional tribes include the Kisii (6%), Meru (6%), and other African (15%). There are small numbers of people of Indian, Pakistani, and European origins who live in the interior as well as some Arabs residing along the coast. The official languages of Kenya are Kiswahili and English (Government of Kenya, 2005; US Department of State, 2007). The language of instruction is English.

### *Religion in Kenya*

Religion plays a vital role in the lives of Kenyans. Christianity seems to be the dominant religion at 70%. Other religions (Islam and indigenous beliefs) form the bulk of the remainder. About 1% of the population practices Hinduism and Sikhism (Central Bureau of Statistics, 2006; Central Intelligence Agency, 2007; Government of Kenya, 2005; Kiima et al 2004; Library of Congress, 2007; Macha, Kieti, & Ngunyi, 2007).

*Health and Healthcare in Kenya*

Kenya's health infrastructure suffers from urban-rural and regional imbalances, lack of investment, and a personnel shortage. For example, in 2000 there was one doctor for every 10,150 people (Library of Congress, 2007). Malaria and tuberculosis have, in the past, been the primary health challenges in Kenya. However, in 2004 the Kenyan Ministry of Health stated that HIV/AIDS had exceeded the two diseases to become the leading cause of death in the country. There are varied estimates regarding the rates of HIV infection in Kenya. According to the estimates by United Nations Development Program (UNDP), more than 16% of adults in Kenya were infected by HIV in 2006. The Joint United Nations Program on HIV/AIDS (UNAIDS) provides a lesser figure of 6.7%. Regardless of these differences, HIV/AIDS remains a major challenge in Kenya. This situation prompted the Kenyan government to declare HIV/AIDS a national disaster. This declaration was important because it prompted the government to marshal resources to combat the problem.

Since 1984, when the first HIV/AIDS diagnosis was made in Kenya, more than 1.5 million Kenyans have died due to HIV/AIDS and about 3 million Kenyans are HIV positive. More than 70 people a day die of HIV-related illnesses. Women are more affected by HIV/AIDS than men, with twice the prevalence rates. HIV/AIDS has left many children orphaned at the rate of about 11% (Library of Congress, 2007).

Other than diseases, Kenya had the highest rate of road accidents in the world, with 510 fatal accidents per 100,000 vehicles in 2004 estimate, compared to second-ranked South Africa, with 260 fatalities per 100,000 vehicles, and the United Kingdom, with 20 per 100,000 (Library of Congress, 2007). Road accidents are among the leading

causes of disability in Kenya (Ogechi & Ruto, 2002). Other common include chronic respiratory diseases, cancer, diabetes, malnutrition, HIV/AIDS, other infectious diseases, and injuries such as those from falls, land mines and violence (Government of Kenya, 2008).

### *Education and Literacy in Kenya*

Kenya's literacy rate was at 73.5% in 2002 (Government of Kenya, 2007). These rates range between 75% and 85%, with the female rates about 10% lower than those of males (Government of Kenya, 2005). The education system is comprised of eight years of compulsory primary education, beginning at age six; four years of secondary school; and four years of university. The language of instruction from the secondary level onward is English. Primary school enrollment since 2002 has included about 75% of the children of Kenya. The government offers universal free primary education, a change from earlier cost-sharing arrangements between the government and parents (Government of Kenya). In 2008, the government implemented a subsidy program for tuition and administration costs, school maintenance and improvements, and class activities. Parents are now responsible for uniforms and lunches and as well residence costs for children at boarding schools (Oyaro, 2008).

There are five public universities in Kenya and about ten private institutions of higher education. The 1980s saw an expansion in university education in response to high demand. The public universities are: the University of Nairobi (founded in 1956); Kenyatta University (1972) in Nairobi, the Jomo Kenyatta University of Agriculture and Technology (1981) near Nairobi; Egerton University (1939) near Nakuru; and Moi University (1984) outside of Eldoret. The government also provides opportunities for

higher education through several polytechnic institutes and teacher-training colleges (Government of Kenya, 2005). There are also recognized specialized private institutions of learning such as business schools. The present study will take place at the University of Nairobi.

### A Profile of the University of Nairobi

The University of Nairobi is located in the capital city of Kenya, Nairobi. A number of developments in higher education in Kenya necessitated the inception of the University. The following is a brief description of these developments.

In 1947, the colonial government wanted to establish a commercial and technical institute in Nairobi. In 1949, this idea was taken up regionally among the three East African countries (i.e., Kenya, Uganda, and Tanzania). In 1951, a Royal Charter was issued to the Royal Technical College of East Africa and the foundation stone of the college was laid in April, 1952 (University of Nairobi, 2008, 2008a, n.d).

During the same period, the Asian Community of East Africa was also intending to establish an Arts, Science and Commerce College in commemoration of Mahatma Gandhi. To avoid duplication of efforts, Gandhi Memorial Academy Society agreed to merge interests with those of the East African Governments. This led to the incorporation of the Gandhi Memorial Academy into the Royal Technical College of East Africa in April 1954. The college admitted the first students in April, 1956 (University of Nairobi, 2008, 2008a, n.d).

As interest in higher education grew, there was need to expand the education in East Africa. With recommendation from a committee formed in 1958 and chaired by the

then Vice-Chancellor of the University of London, Sir John Lockwood, the Royal Technical College of East Africa was transformed. On June 26, 1961, the College became the second University College in East Africa. It was named the "Royal College Nairobi" (University of Nairobi, 2008, 2008a, n.d).

The Royal College Nairobi was renamed "University College, Nairobi" on May 20, 1964. On attaining "University College" status, the institution prepared students for bachelor's degrees which were awarded by the University of London. In the meantime, the college also continued to offer college diploma programs, which continued until 1966 when it began to prepare students fully for degrees of the University of East Africa. On July 1, 1970, the University of East Africa was disbanded and the three East African countries established autonomous national Universities. The University of Nairobi was born in this way by an Act of Parliament (University of Nairobi, 2008, 2008a, n.d).

The University of Nairobi remained the only institution of higher learning in Kenya for a long time, and responded to the national, regional and Africa's high level manpower training needs by developing and evolving strong, diversified academic programs and specializations in sciences, applied sciences, technology, humanities, social sciences and the arts (University of Nairobi, 2008b). Since its inception in 1970, many innovations have taken place at the University of Nairobi, which have contributed to the institution's development. For example, the University has seen a great expansion in student intake over the years. In the 2001/2002 academic year, there were 22,000 students (about 17,200 undergraduate and 4,800 postgraduate students) compared to 36,991 students in the 2006/2007 academic year (about 25,939 undergraduates and 11,052 postgraduate students) (University of Nairobi, 2008b).

In view of the fast expansion and the need to ease administration, six colleges were established within the University under the University of Nairobi 1985 Act of Parliament. These colleges and their locations are:

1. College of Agriculture & Veterinary Sciences situated at Upper Kabete Campus
2. College of Architecture & Engineering situated at the Main Campus
3. College of Biological & Physical Sciences situated at Chiromo Campus
4. College of Education & External Studies situated at Kikuyu Campus
5. College of Health Sciences situated at the Kenyatta National Hospital
6. College of Humanities and Social sciences situated at the Main Campus –college coordinates learning activities at the following faculties: Main Campus - Faculty of Arts; Parklands - Faculty of Law; and Lower Kabete Campus - Faculty of Commerce (University of Nairobi, n.d, 2008a).

Presently there are about 21 faculties, schools, and institutes at the University of Nairobi that offer approximately two hundred majors. The University of Nairobi offers both full-time programs and part-time programs across most majors. Part-time students admitted to the University of Nairobi are those who meet university admission requirements, but who have not been able to access university education due to restricted intake into the full-time program that is determined by limited resource allocation by the Government. They usually pay out of pocket unlike those in full-time programs whose education is subsidized by the government. Part-time programs are offered during evenings and weekends and have accorded an important opportunity to hundreds of students who could not have attained university education. The present study was carried out at the College of Humanities and Social Sciences at the faculty of Arts at the

University of Nairobi's Main Campus, which houses undergraduate studies in Sociology, Social Work, Psychology, Political Science, and Public Administration majors. These are the majors chosen for the present study because majority of the graduates are formulating and implementing or may formulate and implement policy both in the public and private sectors in Kenya.

### Disabilities in Kenya

Disability in Kenya is often seen as burdensome and shameful and people with disabilities are viewed as burdens, useless, good for nothing, and curses (Macha, Kieti, & Ngunyi, 2007). Furthermore disability is considered mysterious Kenya, a situation that necessitates the use of cultural and religious beliefs to explain and understand the concept (Manyibe, et al., 2009). For example, in understanding the etiology of disability in Kenya, witchcraft, curses from the gods/ancestors, and punishment from God, (Kiima et al., 2004; Ogechi & Ruto, 2002) are invoked. Other explanations of the causes of disability include natural and man-made disasters such as road accidents which are among the leading causes of disability in Kenya (Ogechi & Ruto), chronic respiratory diseases, cancer, diabetes, malnutrition, HIV/AIDS, other infectious diseases, and injuries such as those from falls, land mines and violence (Government of Kenya, 2008). Violence as a cause of disability in the Kenyan perspective includes police brutality, land crashes, ethnic strife (Manyibe et al.) such as the one experienced in the beginning of 2008 after the disputed general elections, and medical errors (Manyibe et al.; Ogechi & Ruto). Data from a recent study in Kenya indicates that persons with physical disabilities

and blindness are the most prone to negative attitudes, abuse and violence while those with deafness and the blindness face barriers to access (Macha, Kieti, & Ngunyi).

### Historical Overview of Disability Situation in Kenya

The road to recognition of the plight of persons with disabilities in Kenya has been long. This section describes Kenya's response to disability from the colonial era to present time. The earliest recorded response to disability in Kenya dates back in 1946 when the Salvation Army started a program to help rehabilitate blinded Second World War Veterans. This program was later transformed into a school for blind children, the only one of its kind in the entire East Africa region (Ingstad & Grut, 2007). This set a precedent for other church organizations that started to respond to disability issues by establishing schools to respond to disabilities issues across the nation. Later, the government took over the management of these schools providing finances and teachers. The government enacted laws through which institutions that catered to the needs of persons with disabilities were established. These institutions include the Association for the Physically Disabled of Kenya in 1953, Kenya Society for the Blind, and the Kenya Society for Deaf Children (Macha, Kieti, & Ngunyi, 2007). Non-governmental organizations (NGOs) also emerged that served this population, the first being Christian Blind Mission (C.B.M.). Other NGOs include: Sight Savers, Sense International, Leonard Chesire Foundation, and Handicap International (Ingstad & Grut).

Other national and community groups, also known as organizations for persons with disabilities (DPOs) formed to advocate for services and participation of persons with disabilities in national development. The oldest of these organizations are the Kenya

Union of the Blind (KUB) (1959), The Kenya National Association of the Deaf (KNAD) (1987), and the Kenya Society of the Physically Handicapped (KSPH) (1986). In 1989, these national organizations, alongside other smaller district and community ones came together to form The United Disabled Persons of Kenya (UDPK). The UDPK is the umbrella body with the capacity for negotiation and advocacy for persons with disabilities in Kenya. The organization works closely with the government through awareness creation, needs identification, and service provision for persons with disabilities. Another notable achievement of the organization is organizing events such as the United Nations International Day for persons with disabilities. Parent associations and support groups have also, in recent years, made useful contributions with respect to children and adults with intellectual disabilities (Ingstad & Grut, 2007; Macha, Kieti, & Ngunyi, 2007).

In 1968, the government of Kenya recognized the need for education and training in the disability sector through a commission of inquiry into disability issues, famously known as the Ominde Report. Some of the recommendations of the commission were to establish the role of government in coordinating and improving the quality of service as well as to establish transition from school to work strategies for persons with disabilities. As a follow-up to the recommendation of this commission, the Parliamentary Sessional Paper number 5 of 1968 was written, through which the government established the Vocational Rehabilitation Division in the Department of Social Services. The Vocational Rehabilitation Division established the Industrial Rehabilitation Centre in Nairobi in 1971. Ten rural vocational rehabilitation centers were subsequently established countrywide to offer artisan courses such as carpentry, dressmaking and leatherwork

(Ingstad & Grut, 2007; Macha, Kieti, & Ngunyi, 2007).

In 1975, the Special Education Section was set up within the Ministry of Education to co-ordinate education for children with special needs. Independent sections with specialized staff responsible for every disability category were later established within the Ministry of Education. In 1980, one year before the United Nations International year of persons with disabilities, the Government of Kenya declared a National year for persons with disabilities, which culminated in intensive awareness campaigns on disability issues. Collaborative efforts that were launched in that year continued in 1982 during the UN International Year of persons with disabilities. During this year, the national fund for persons with disabilities was established. The fund provides assistance to individuals with disabilities as well institutions for persons with disabilities. At around the same time, Community Based Rehabilitation (CBR) was introduced. The aims of CBR were to involve communities as well as help change societal attitudes toward persons with disabilities.

In 1984, the Ministry of Education established the Educational Assessment and Resource Services (EARS). This is a multi-sector approach that involves teachers, social workers and medical personnel to improve quality of special education. The approach promotes community involvement in the early identification, assessment, intervention and placement of children with special education needs in educational services. The government established the Kenya Institute of Special Education (KISE) in 1987 (Kenya Institute of Education, 2003). Prior to the establishment of KISE, teachers who taught special education were trained on the job. In 1993, the Attorney General established a Task Force to evaluate disability laws. The Task Force collated views from the general

public as well as persons with disabilities. The Taskforce obtained views for three years and its findings formed a basis for a draft bill in 1997. The draft Bill was signed into law in December 2003 and became the Persons with Disabilities Act (PDA) of 2003. The Persons with Disabilities Act (PDA) of 2003 was brought into effect in June, 2004 (ILO, 2004; Ingstad & Grut 2007). The PDA prohibits discrimination in employment based on disability. The Act also entitles persons with disabilities accessible environments to enable them to have access to buildings, roads and other social amenities as well as assistive devices and other equipment to promote their mobility. Regarding education, the Act stipulates that no person or learning institution shall deny admission to a person with a disability, both in mainstream and special education (Government of Kenya).

For the first time in Kenya's history, the Act provided a mechanism through which persons with disabilities could obtain their equal rights as they pursued opportunities to enhance their lives. This is important because the current Kenyan constitution does not recognize or mention persons with disabilities (ILO, 2004). The Act has three broad aims which are: (a) to provide for the rights and rehabilitation of persons with disabilities; (b) to achieve equalization of opportunities for persons with disabilities; and (c) to establish the National Council for Persons with Disabilities (Government of Kenya, 2003). The National Council for Persons with Disabilities (NCPWD) was established in the Ministry of Gender, Sports and Social Services in December 2004. The functions of the Council are: (a) to formulate policies; (b) to establish systems and structures for equalization of opportunities for persons with disabilities; (c) to mobilize funds to be used for the activities of the Council; (d) undertake research, advocacy, and public awareness on disability issues; (e) to make a

register of persons with disabilities as well as DPOs; and (e) to build capacities of DPOs as well as persons with disabilities (Disability.org, 2006). The funds to run the Council's activities come from two sources: (a) funds voted by Parliament; and (b) public and private donations from local and international agencies (Government of Kenya, 2003).

### Attitudes toward disability

There are many definitions in the literature of the term attitude and no universal definition of the term (Finder, et al. (2007). However, researchers seem to agree that the attitude represents affective, cognitive, and behavioral components (Olson & Zanna, 1993, Rajecki, 1990). Attitude has been defined as “a mental and neural state of readiness, organized thorough experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related” (Allport, 1935, p. 810). It is “an idea charged with emotion which predisposes a class of actions to a particular class of social situations” (Triandis, 1971, p. 2). Plotnik (1996) defines attitude as “any belief or opinion that includes a positive or a negative evaluation of some target (an object, person, or event) and that predisposes us to act in a certain way toward the target” (p. 520). Attitudes reflect a tendency to behave stereotypically and predicatively toward a certain group of individuals (Hunt & Hunt, 2000). Societal attitudes can impact the ability of persons with disabilities to be fully accepted and integrated in the community (Antonak & Livneh, 2000).

### Scales that Measure Attitudes Toward Disability

Research on attitude toward disabilities has generated a number of instruments aimed at measuring attitudes toward persons with disability. These instruments include: Modified Issues in Disability (MIDS), Attitudes Toward People with Disabilities Scale (ATPD), Interaction with Disabled Persons Scale (IDP), Scale of Attitudes Toward Disabled People (SADP), Social Distance Scale (SDS), Rehabilitation Situations Inventory (RSI), Attitudes Towards Employing Persons with Disabilities (ATEPD), among others. These instruments are discussed in this section. The instruments described were chosen because they measure general attitudes toward disability as opposed to attitudes toward specific disabilities (Findler, Vilchinsky, & Werner, 2007).

*Modified Issues in Disability Scale (MIDS).* The MIDS was developed by Makas (1991) and includes a set of 37 statements phrased in a factual manner such as: “It is logical for a woman who uses a wheelchair to consider having a baby.” Respondents are asked to indicate if they Strongly Disagree, Disagree, Somewhat Disagree, Don't Know/No Opinion, Somewhat Agree, Agree, Strongly Agree with the statement and the answers are coded from one (Strongly Disagree) to seven (Strongly Agree). A number of the statements are reverse coded. After allowing for those answers to be transposed, the higher the score the more the person knows about people with disabilities and the more positive is that person's attitude (Makas, 1991a, 1991b, 1993).

*Attitudes Toward People with Disabilities Scale (ATPD).* The ATPD scale was developed by Yuker, Block, and Campbell (1960). It consists of three scales, A, B, and O, which measure participants' beliefs about disabilities. A six-point Likert-type scale that ranges from “agree very much” to “disagree very much” is used (Antonak & Livneh,

1988; Tervo, Palmer, & Redinius, 2004). A low score on the instrument is indicative of a respondent perceiving a person with disabilities as different from those without disabilities. A high score is indicative of a respondent as perceiving persons with disabilities as similar to those without disabilities (Matkin, Hafer, Wright, & Lutzker, 1983; Palmer, Renius, & Tervo, 2004). Median reliabilities for Form-O are high (five week test-retest = .83), 4 to 16 month test-retest = .68, split half = .80, alpha = .76). Those for Form A are (three week test-retest = .79), 5 month test-retest = .68, split half = .83, alpha = .84) and for form B they are (six week test-retest = .84), 4 month test-retest = .71, split half = .82, alpha = .81). Scale O is described in chapter 3 because it was used for the purposes of the current study.

*Interaction with Disabled Persons Scale (IDP)*. The IDP was developed by Gething in 1991, as a result of shortcomings noted in the ATPD. He noted that ATPD measured attitudes toward persons with disabilities at a societal level. In contrast, the IDP was designed to measure attitudes toward individuals with disabilities at a personal level (Gething, 1991; 1994; Thomas, Palmer, Coker-Juneau & Williams, 2003). The IDP is a 20-item instrument with a 6-point Likert-type scale that ranges from *I disagree very much* to *I agree very much*. Higher scores are an indication of a greater degree of social discomfort.

*Scale of Attitudes Toward Disabled People (SADP)*. The scale was developed by Antonak (1981). The scale consists of 24 Likert-type items that measure attitudes toward persons with disability from a group perspective (Tervo, Palmer, & Redinius, 2004). A higher score is an indication of a more positive attitude.

*Social Distance Scale (SDS)*. The SDS was developed by Borgardus in 1932 and

was further developed by Gordon et al. (2004). The instrument involves a ranking system in which respondents determine the level of relationship they would find comfortable when interacting with a person with a disability. Participants rank seven levels of interactions that range from conversing with a person with a disability to marrying a person with a disability. Higher scores portend a more positive attitude toward disability.

*Rehabilitation Situations Inventory (RSI)*. The inventory was developed by Dunn, Umlauf, and Mermis (1992). The scale is composed of a 30 item Likert-type scale that measure attitudes toward persons with disabilities. A higher score indicates greater discomfort with disabilities.

*The Disability Rights Attitude Scale (DRAS)*. The DRAS was developed by Hernandez, Keys, Belalcazar (2000). The scale consists of 27-items and is scored using paper-and- pencil. The scale assesses people's attitudes toward Americans with Disabilities Act (ADA). Sample items include: "Individuals who use wheelchairs should not be encouraged to use public transportation.). A six-point Likert-type scale is used for each item. A 1 indicates a strong negative attitude and a 6 represents a strong positive attitude. Items target each of the three Titles of ADA.

*Attitudes Toward Employing Persons with Disabilities (ATEPD measure)*. The ATEPD measure was developed by Loo (2002). The measure comprises three factor-analytically derived scales which tap three major human resource management themes regarding the employment of individuals with disabilities: organizational policies and procedures (e.g., staffing, training, promotion), organizational climate (e.g., discrimination, preferential treatment), and working relationships (e.g., attitude towards working for and working with others with disabilities). It employs 6-point Likert

responses that range from 1 (*strongly disagree*) to 6 (*strongly agree*). The measure also has open-ended questions at the end to allow participants to add other comments about attitudes toward employing people with disabilities. This scale will be discussed further in Chapter Three because it is one of the instruments used in the present study.

*Chedoke-McMaster Attitudes Toward Children with Handicaps (CATCH)*. The CATCH is a survey questionnaire that was developed by Rosenbaum, Armstrong, & King, in 1985. Examples of items are: “I wouldn’t worry if a disabled person sat next to me in class,” and “I feel sorry for disabled people” (Budisch, 2004, pg. 2.) Higher scores are an indication of more accepting attitudes toward disability.

#### Potential Predictors of Attitudes toward Disability and Organizational Policy

Research has shown that attitudes toward individuals with disability may be associated with a variety of demographic variables; however findings on these relationships seem to be contradictory and inconclusive. A brief literature review of these variables is provided.

##### *Gender.*

A literature review regarding the relationship between gender and attitudes toward disability was not conclusive. No statistical significance in gender was found in several studies (Choi & Lam, 2001; Tervo, Palmer, & Redinius, 2004; Thomas, Doyle & Vaughn 2007; Palmer, Redinius, & Tervo, 2000). In a study of Korean and Korea-American students Choi and Lam did not find any relationship between gender and attitude. Among psychology students at a medium size Mid-Western University, non-significant results were reported (Thomas et al., 2007). Tervo et al., in a study among healthcare

professional students, also did not find gender differences in attitudes toward disability. In another study conducted among college students using ATPD, SADP and RSI, no statistically significant results in gender were found (Palmer, Redinius & Tervo). Budisch (2004) did not find significant relationships between gender and attitude. He, however, concluded that there seemed to be a trend toward more positive attitudes toward disability among females than their male counterparts.

Mixed findings within studies regarding relationships between attitudes and gender have also been reported in the literature (Chen, Brodwin, Cardoso, & Chan, 2002; Findler et al. 2007; Gordon, Tantillo, Feldman & Perrone, 2004; Hayashi & Kimura, 2004; Thomas et al. 2003; White, Jackson, & Gordon 2006). A comparative study among America, Taiwanese and Singaporean students using showed that, in general, female students held higher ATPD and ATDMS scores than did male students (Chen et al.). The study also showed that female American students held more positive attitudes than male American students. Male American students had similar scores to those of female Taiwanese and Singaporean females. In another study, no gender differences were reported on perceived knowledge of desired social distance (Social Distance Scale) among undergraduate students for persons with Mental Retardation; however, male students were found to possess more knowledge of Mental Illness than female students (Gordon). Hayashi and Kimura compared attitudes toward disability among Americans and Japanese Social Work students. There were no gender differences found in the MIDS among Japanese students. However, among American students, significant differences were found with females possessing more positive attitudes than male students.

In another study using the IDP and the ATPD scales among undergraduate's students (Thomas et al., 2003), gender was not related to the ATPD. However, women seemed to be more empathic (one of the IDP factors) than men. White, Jackson and Gordon, found that attitudes toward athletes with disability were not related to gender using the IAT, but reported differences in ATPD, scores with females scoring higher than males.

Significant differences were consistently found between men and women in other studies (Findler et al., 2007; Hergenrater & Rhodes, 2007; Hunt & Hunt, 2000; 2004; Loo, 2002, 2004; Martin et al., 2005). Using the Disability Social Relations Generalized Disability Scale (DSRGD), Hergenrater and Rhodes found that female undergraduate students had higher scores than males on the Dating, Marriage, and Work subscale. Hunt and Hunt (2000) studied business and rehabilitation majors' attitudes toward persons with disability using the Contact with Disabled Persons Scale (CDP) and the ATPD. Women scored higher on both scales indicating they held more positive attitudes toward disability than males. In a study using the MAS, females scored higher on the behavioral scale than men, an indication that women had more positive attitudes than men (Findler et al.). Likewise, Hunt and Hunt (2004) studied the impact of educational experience on attitudes toward persons with disability. Results of a MACOVA indicated that women held higher scores on both the KAPWD and ATPD scales. Loo (2002, 2004) studied Canadian students' attitudes toward employing persons with disabilities using the Attitudes toward Employing Persons with Disabilities (ATEPD) measure. Females held more positive attitudes than males. Finally, male medical students held significantly

lower attitudes than females using a self-administered questionnaire to study attitude toward Cerebral Palsy (Martin et al.).

### *Age*

Age was not found to be related to attitudes toward disability in most studies (Hergenrather & Rhodes, 2007; Hunt & Hunt, 2004; Thomas, Palmer, Coker-Juneau, & Williams, 2003). Using the DSRGD, Hergenrather and Rhodes found that age was not significantly related to attitudes of undergraduate students regarding work, marriage, dating, as well as relationships with persons with disabilities. In another study among undergraduate students from a medium-sized southern university, no relationships were found between age and attitudes on either the IDP or the ATPD scales (Thomas et al.). Hunt and Hunt also found no age differences on attitudes toward persons with disability among business majors.

One study group, however, found age to have a significant relationship with attitudes toward disability (Findler et al., 2007). Using the MAS, they found that older participants tended to possess more positive attitudes toward disability than the young.

### *Marital Status*

There was no research found in the literature review that included marital status and attitudes toward disability. This variable was included in the present study to determine if it would be related to students' general attitudes toward disability and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi.

### *Education Focus*

Findings from comparative studies show that participants specializing in some fields possessed more positive attitudes than those from other fields (Au & Man, 2006; Hunt & Hunt, 2000, Tervo et al. 2004; White & Oslon, 1998). Occupational therapists were found to possess more positive attitudes toward disability than rehabilitation nurses and physical therapists (White & Oslon, 1998). In another study, rehabilitation majors held more positive attitudes compared with business majors (Hunt & Hunt, 2000). Medical students and other healthcare students were found to hold more positive attitudes than nursing students (Tervo et al. 2004). Nursing, occupational therapy and physical therapy students scored higher on the ATPD than social work students (Au & Man). Herbert (2000) did not find any relationship between educational focus and attitudes toward disabilities as measured by the ATDP among counseling, education, recreation, and other disciplines.

### *Level of Enrollment*

Studies regarding attitudes toward disabilities have examined level of enrollment such as graduate vs. undergraduate (Choi, & Lam, 2001, Herbert, 2000), formal vs. non-formal (Hernandez, 2004), and first year vs. second years (Au & Man, 2006). Higher education was found to be positively related to attitudes toward disability (Choi & Lam; Au & Man, 2006). Korean and Korean-American graduate students had higher SADP scores than their undergraduate counterparts (Choi, & Lam). Similar findings were reported among Hong Kong health care students where second year students scored higher on ATPD than first year students (Au & Man) as well as among formal and non-formal education (Hernandez, 2004). However, Herbert (2000) did not find any

relationship between level of enrollment (i.e., bachelors vs. masters) and attitudes toward disability using ATPD.

#### *Type of Enrollment*

Type of enrollment was defined as the “mode of enrollment” (i.e., whether students were enrolled full-time or part-time). There were no studies identified in the literature regarding type of enrollment and attitudes toward disability. The variable was included in the current study because, based on the current researcher’s knowledge of the Kenyan system of education, many students have enrolled in part-time programs in Kenyan universities in the recent past.

#### *Employment Affiliation*

Only one study was found that focused on employment status. Hernandez, Keys, and Belalcazar (2004) studied attitudes toward disability rights among participants from private and public establishments. Participants that worked in public entities held more positive attitudes toward disability rights than those who worked in private entities.

#### *Socio-economic Status*

One study was found that examined relationships between socio-economic status and attitudes toward disability. Socio-economic status was not significantly related to attitudes toward disability among Jewish Israelis without disabilities (Findler et al. 2007).

#### *Area of Residence*

Only one study was found that dealt with this variable. In this study, community size was found to be significantly related to attitudes toward disabilities using the ADTP, but was not significantly related to attitudes toward disability using the SADP (Palmer, Redinius, & Tervo, 2000). This significance was speculated to mean that those who lived

in large communities may have had more exposure to persons with disabilities and that may have enhanced their positive attitudes toward persons with disabilities (Palmer, et al.).

#### *Place Where One Grew Up*

There was no study found in the literature that examined relationships between the place where one grew up and attitudes toward disability. This variable was included in the present to determine if there were relationships between these variables because (80%) of the Kenya's population live in the rural areas (Library of Congress, 2007). Furthermore, findings from a preliminary national survey on disability in Kenya indicate more persons with disabilities reside in the rural areas (Government of Kenya, 2008).

#### *Perceived Knowledge of Disability*

Mixed findings were reported regarding the relationship between knowledge of disability and attitudes toward persons with disability. Most of the studies reviewed employed short-term interventions (Budisch, 2004; Gordon et al. 2004; Hunt & Hunt, 2004; Martin et al. 2005). Watching a 20-minute video tape regarding cerebral palsy improved participants' knowledge of the disability as well as promoted positive attitudes toward people with cerebral palsy (Martin et al.). In another study, students who attended short-term presentation regarding persons with disabilities scored higher on ATPD than did students who did not attend the presentation (Hunt & Hunt).

On the contrary, Gordon et al. (2004) found no relationship between attendance of a workshop regarding disability and attitudes toward mental illness and mental retardation. Similarly, an analysis of the impact of a short-term diversity course among undergraduates of a Mid-Western university did not yield any significant relationship

with attitude toward disability (Budisch, 2004). Herbert (2000) using the ATPD found that perceived knowledge of program modification for people with disabilities among therapeutic recreation staff was not related to attitudes toward disability.

#### *Previous Contact with Disability*

Just as with other variables, mixed findings have been reported in the literature regarding the relationship between previous contact with disability and attitudes toward disability. There were no relationships found in some studies (Chen et al., 2002; Hunt & Hunt, 2004; Gordon et al., 2004). Chen et al. did not find any effect of previous contact with disability. Hunt and Hunt did not find any relationship between previous contact with disability and attitudes among undergraduates of a mid-Atlantic university. In a similar study among undergraduate students from a Mid-Western university, no significant differences between previous contact with disability and the SDS were found (Gordon et al.).

Mixed findings were reported using the DRAS where participants with prior work or volunteer experience with disability held more positive attitudes toward disability rights than those without prior contact (Hernandez et al., 2004). In the same study, however, prior personal contact (i.e., family member or friend) was not related to attitudes toward disability rights. Similar findings were reported by Tervo et al. (2004) who reported no differences in comfort for challenging rehabilitation situations, but more positive ATPD and SADP scores among those with previous contact with disability than those without.

Significant relationships were found between previous contact with disability and attitudes among undergraduates of a medium-sized university in the southern United

States. In one study, ATPD scores were positively related to self-esteem, closeness of contact with, and experience level with individuals with disabilities (Thomas et al. 2003). Significant findings were also reported whereby students with prior contact possessed positive attitudes towards persons with disabilities (Budisch, 2004). Similar findings were reported among Taiwanese and Singaporean students (Chen et al., 2002) as well as Korean and Korean American students (Choi & Lam, 2001).

#### *Self-knowledge of Disability Law*

Hernandez (2004) found a significantly positive relationship between participants' assessed knowledge of the Americans with Disabilities Act (ADA) and their attitudes toward disability rights. They concluded that this is an indication that people with more knowledge of disability law may have more favorable attitudes toward persons with disability.

## CHAPTER THREE: METHODOLOGY

This chapter provides the research design, participants, data collection procedures, data collection instruments, and operational definition of variables. Data analysis procedures are also provided.

### Research Design

This dissertation utilized a cross-sectional survey design. This is a type of research in which both the entire population or its subset is selected; and from these individuals, data are collected to help answer research questions of interest. It is called cross-sectional because the information about X and Y that is gathered represents what is going on at only one point in time (Olsen & St. George, 2004).

### *Research Participants*

Study participants were drawn from a convenience sample (Polit & Hungler, 1999) of students who satisfied the following criteria: they were based at the University of Nairobi's Main Campus and, at the time of study, were majoring in one of the following undergraduate areas: Sociology, Social Work, Psychology, Political Science, and Public Administration. These majors were chosen as criteria because the majority of the graduates are expected to formulate and/or implement or are already formulating and/or implementing policy both in the public and private sectors in Kenya. There were 36,991 students enrolled at the University of Nairobi in the 2006/2007 academic year (University of Nairobi, 2008a). Approximately 700 undergraduate students were enrolled in the selected majors. Based on the statistical analysis used in this study, an attempt was

made to collect data from approximately 200 students (see Appendix E). A total of 309 students who met the recruitment criteria completed the survey. This was 44% of the total population. Participants ages ranged from 19 to 45 years ( $M = 24.09$ ,  $SD = 4.438$ ).

The majority (61.8%) of the participants indicated they were female. Eighty-three percent (83%) reported that they were single, with 17% indicating they were married.

Participants were recruited from five majors (educational focus) and were distributed in the following order: Sociology (34.4%), Psychology (24.9%), Political Science (17.6%), Social Work (12.2%), and Public Administration (4.6%). A number of participants (6.3%) reported majoring in more than one area of focus. Approximately 53% were in the second year of study (sophomores) while 47% reported they were in the third year of study (juniors). More than half (51.7%) were part-time while the rest (48.3%) were full-time students.

More than half of the participants (52.6%) indicated they were unemployed. Of those who reported some form employment, 22.7% worked for non-government organizations (NGOs), 11.7% worked for the government, 8.9% worked for businesses organizations, and 4.1% worked at other unspecified places.

The majority of the participants (65.3%) indicated that they did not have income. The unit of measure of income is the Kenya Shilling (Ksh.). The exchange rate at the time of the study (Kshs.) 78 was equivalent to 1US Dollar (US\$). For those who reported income, 2.4% earned under Kshs. 3,000; 5.2% earned Kshs. 3,001 – 10,000; 4.1% earned Kshs. 10,001 – 20,000; 7.6% earned Kshs. 20,001 – 30,000; 6.5% earned Kshs. 30,001 – 40,000; and 8.9% reported earnings of over Kshs. 40,000.

The majority of the participants (60.4%) indicated that they grew up in rural areas

while 39.6% said they grew up in the urban areas. Most of the participants (83.8%) said they resided in urban areas while 16.2% indicated they resided in the rural areas.

Participants were asked to rate their perceived knowledge of disability. About 4.0% said they had no knowledge of disability, 26% said they had little knowledge, 60% reported some knowledge, and 30% thought they possessed great knowledge. Participants were also asked to rate their self-knowledge of disability law. A paltry (0.4%) felt they were very much familiar with disability law. One (1%) said they were very familiar, 8.1% thought they were familiar, 12.1% indicated moderate familiarity, 39.4% indicated they were a little familiar, and 39% indicated they were not familiar with the law.

About 10% of the participants indicated they did not have previous contact with disability with disability. Seventeen percent (17%) reported having a friend or work-mate with a disability, and 18.8% indicated they had a family member with a disability. The majority of the participants (54.0%) indicated they had a casual contact with disability.

#### Data Collection Procedures

This study was conducted by the principal investigator (a PhD candidate at the University of Arizona) with the help of a supervisor who also was the Chair of the dissertation committee. The supervisor is a senior lecturer at the University of Arizona. Data collection was done by a research assistant under the supervision of an assistant supervisor in accordance with requirements by the Government of Kenya and the University of Nairobi, Kenya. The research assistant was a master's student at the University of Nairobi, Kenya and the assistant supervisor was a lecturer at the same

institution. Both were approved by both the Human Subjects Committee of the University of Arizona and the dissertation committee.

*Recruitment.* Data collection was done by the research assistant. The research assistant was required to complete the Collaborative Institutional Training Initiative (CITI) training. He also was required by the principal researcher to respect participants' rights to privacy and confidentiality, as emphasized by the University of Arizona's Human Subjects Protection Program. He was trained about the procedures of data collection as outlined in Appendix E.

Because the study took place in a college setting, lecturers teaching undergraduate courses in the majors that fit the criteria for this study were approached with a request to allow their students to participate in a research survey (see Appendix H). Once the lecturers agreed, they were requested to inform students about the study a week in advance. An advertisement for the study was given to the lecturers to circulate in class. A copy of the advertisement was pinned in the classroom notice boards as well as outside of classrooms for the selected classes. During the following week, the research assistant visited each of the selected classrooms to distribute the research packets. Only those classes whose lecturers were willing to allow their students take part in the study were involved. The research assistant was instructed to collect data on a first-come, first-served basis until the desired sample was reached. To avoid collecting data from the same participants twice, the research assistant informed participants that if they already participated in the research, they should not complete the surveys twice.

*Introduction of the study to participants.* Prior to the start of data collection, the research assistant read the Introduction to the Study (Appendix G) to the participants. He

explained the purpose of the study and allowed the participants to read the Subject Disclosure Form (Appendix A) that was part of the research packet. He informed them that no identifying information such as name or signature were required because this information was not necessary. They were told that all information obtained, as part of the research, would be locked in a cabinet in a secure office at the University of Nairobi. They were notified that at the completion of data collection, the data could be shipped immediately by the research assistant with the help of the assistant supervisor to the principal researcher who was based in Tucson, AZ, USA. Participants were informed that their responses to the surveys would be anonymous and the final report would not include any identifying information.

*Actual data collection.* Participants were asked to complete the survey and place it in a blank envelope that was collected by the research assistant immediately after they completed the survey. They also were informed that if they did not wish to complete the survey, they would simply place the blank forms in the envelope and hand it in to the research assistant. Participants were also informed that all surveys would be kept safely for at least three years, as required by the Internal Review Board of the University of Arizona.

*Handling of data.* The research assistant was asked not to share the data collected with anyone. He was asked to mail the data under the supervision and guidance of the Assistant Supervisor. Both were present when an employee of an Express Shipping Service arrived to pick the data for shipping from the assistant supervisor's office at the University of Nairobi. The questionnaires were placed in a sealed box and shipped to the principal researcher to United States from Kenya via Express Shipping Service.

## Data Collection Instruments

A structured questionnaire was used to generate quantitative data for statistical analysis. The survey instrument (questionnaire) was comprised of three parts: (a) a researcher-designed demographic data sheet; (b) the Attitudes Toward Disabled Persons scale (ATPD) Form-O; and the (c) Attitudes Toward Organizational Policies and Procedures for Employees with Disabilities Scale of the Attitudes Toward Employing Persons With Disabilities Scale (ATEPD) measure (see appendix A-D).

The three instruments were administered via paper and pencil. The demographic questionnaire included questions regarding basic information such as gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment affiliation, socio-economic status, area of residence, place where one grew up, perceived knowledge of disability, contact with a person with a disability, and self-knowledge of disability law (See Appendix B). In addition, the ATPD scale, Form-O and the Organizational Policies and Procedures for Employees with Disabilities scale of the ATEPD were used for the study.

The ATPD scale (Yuker, Block, & Campbell, 1960) was developed to measure general attitudes toward persons with disabilities. Form-O is the most preferred version of the ATPD scale (White, Jackson, & Gordon, 2006). It is a 6-point Likert-type scale consisting of 20 items (Tervo, Palmer, & Rediniou, 2004). The possible responses to each item of the scales range from +3 (*I agree very much*) to -3 (*I disagree very much*) (Antonac & Livneh, 1988) (refer to Appendix B). A total score is computed by adding the responses of the 20 items and ranges from 0 to 120. Because about half of the items are positively worded, all responses are summed and the sign of this sum reversed and a

constant added to eliminate any possible negative value. A high score on the scale indicates a more positive attitude toward persons with disability (Antonac & Livneh). Median reliabilities for Form-O are high (five week test-retest = .83), 4 to 16 month test-retest = .68, split-half = .80, alpha = .76). Furthermore, the scale has high content, predictive, concurrent, and construct validities (White, Jackson, & Gordon 2006). Internal consistency of the ATPD scales for the current study was checked by using the Cronbach's Alpha statistic. A Cronbach's Alpha of .68 was obtained. A set of items with a Cronbach's alpha coefficient of 0.7 are normally considered to indicate a valid instrument (De Vaus, 2002). Because the obtained alpha was close to .70, it was considered acceptable for this study.

The Attitudes toward Employing Persons with Disabilities (ATEPD) measure was developed by Robert Loo in 2002. The ATEPD comprises three factor-analytically derived scales that tap three major human resource management themes regarding the employment of individuals with disabilities: Organizational Policies and Procedures for Employees with Disabilities Scale (e.g., recruitment, staffing, training, promotion), Organizational Climate Scale (e.g., discrimination, preferential treatment), and Working Relationships Scale (i.e., attitude towards working for and working with others with disabilities). The measure was constructed from a review of human resource management and disability literature to tap important human management areas (i.e., organizational policies and practices for persons with disabilities such as recruitment, staffing, training, and promotion). It employs 6-point Likert-type responses that range from 1 (*strongly disagree*) to 6 (*strongly agree*) (see Appendix C). Items on the scale are not summed into

an overall score because they cover a diverse variety of issues that relate to the employment of people with disabilities (Loo, 2002).

Loo (2004) used the ATEPD measure, together with the Interactions with Disabled Persons (IDP) scale and the Marlowe-Crowne Social Desirability scale to measure validity of the ATEPD in regard to eliciting socially desirable responses. He found small correlations between scores on the social desirability scale and some items on the ATEPD scale which accounted for a small percentage of variance (Kirkwood, 2007; Loo 2004). He concluded that the ATEPD measure was likely to provide valid results and could therefore be used alone to measure attitudes toward employment of persons with disabilities. He stated that users of the ATEPD “can feel more confident that they are obtaining valid scores, rather than socially desirable responding.” (Loo, 2004: pg. 2211). Only the Organizational, Policies and Procedures for Employees with Disabilities Scale of this measure was utilized for the purposes of this study (See Appendix D). The Organizational Policies and Procedures for Employees with Disabilities scale of the ATEPD measure was selected because it measures aspects of management that are relevant to this study. These are recruitment, promotion, pay, and training; aspects that are also highlighted in the PDA. I am very much aware of the shortcomings of this instrument and they will be further illustrated in Chapter Four. However it is important to note here that it is the only one that could closely capture the concepts in this study.

Prior to administration of the survey instruments, a panel of experts with knowledge of Kenya and with similar characteristics as students at the University of Nairobi reviewed the instrument for language appropriateness to provide an impression of the instruments’ utility in Kenya. Although the instrument was in English, it was thought to be appropriate for the purpose of the study because English is the language of

instruction in Kenya. These experts agreed therefore, that the instrument was written in a language comprehensible to students in Kenya. They, however recommended that Item #20 “Disabled people are often grouchy” of the ATPD, Form-O be revised because they thought the word “grouchy” could not be easily understood by the study population. The Item was revised to read “Disabled people are often complaining.”

A wide variety of variables were analyzed in this study. The independent/predictor variables for Research Question 2 were: gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment affiliation, socio-economic status, place where one grew up, area of residence, perceived knowledge of disability, previous contact with a disability, and self-knowledge of disability law.

The dependent variable was the general attitudes toward disability measured by ATPD.

The independent variables for Research Question 4 were: gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment affiliation, socio-economic status, place where one grew up, area of residence, perceived knowledge of disability, previous contact with disability, self-knowledge of disability law, and general attitudes toward disability measured by ATPD. The dependent variable was attitudes toward organizational policies and procedures for employees with disabilities, as measured by the Organizational Policies and Procedures for Employees scale of the ATEPD measure. As indicated earlier, Figures 1 and 2 provide a schematic presentation of the hypothesized relationships between the variables.

### Operational Definition of Variables

*Gender:* Gender was defined as the sex of the participant either female or male. The variable was operationalised as a categorical variable and was coded as follows: 1 = female, 2 = male.

*Age:* Age was defined as the chronological age or the number of years the person had lived from birth to the date of the study. This was treated as a continuous variable.

*Marital status:* Marital status was defined as the condition of being married or not being married and was considered a categorical variable. The variable was coded as follows: 1 = married, 2 = not married and 3 = divorced. Because only one participant reported to have been divorced, the variable was re-coded into two categories for data analysis purposes. The new categories were 1 = married and 2 = not married. The only participant who reported having been divorced was included in the not married category.

*Educational focus:* Educational focus was defined as the academic major of study. It was treated as a categorical variable. The participants were drawn from the following majors: Sociology, Social Work, Psychology, Political Science, and Public Administration. These were coded from 1-5 respectively for data analysis purposes.

*Level of enrollment:* Level of enrollment was defined as the academic year one is enrolled in and was treated as a categorical variable for data analysis purpose. Only two levels of enrollment were in session at the time of this study, i.e., second year (sophomore) and third year (junior). These were coded as 1 = second year (sophomore) and 2 = third year (junior).

*Type of enrollment:* Type of enrollment was defined as the students' mode of enrollment, whether full-time or part-time. The variable was treated as a categorical variable and was coded as 1 = full-time and 2 = part-time.

*Employment affiliation:* Employment affiliation was defined as the current employer and was operationalized using the following categories: government institution, business organization, non-government organization (NGO), church organization, not employed, and other. These were coded from 1-6, respectively, for data collection purposes. Owing to the small numbers of participants in these two categories, the variable was re-coded to the following new categories: 1 = government institution, 2 = business organization, 3 = non-government organization (NGO), 4 = not employed, and 5 = other for data analysis purposes.

*Socio-economic Status (SES):* Socio-economic status was defined in terms of participants' personal income. The variable was treated as a linear variable and was divided into categories based upon monthly salary for data analysis purposes. Kenya's currency, known as Kenya Shilling (Ksh.), was used as the unit of measurement for this variable. The monthly categories were as follows: 1= No income, 2 = Under Ksh. 3,000, 3 = Ksh. 3,001-10,000, 4 = Ksh. 10,000 - 20,000), 5= Ksh. 20,001 - 30,000, 6 = Ksh. 30,001 - 40,000, and 7 = Ksh. 40,001+.

*Place where one grew up:* Area where one grew up was defined as the place where one was born and raised. The variable was treated as a categorical variable for statistical analysis, and was be classified as follows: 1 = rural area, and 2 = urban area.

*Place of residence:* Place of residence was defined as the place of current residence of the participant and was considered a categorical variable. The variable was classified as: 1 = rural area, and 2 = urban area.

*Perceived knowledge of disability:* Perceived knowledge of disability was defined as self-reported knowledge about disability. The variable was considered a linear variable. A scale developed by Gordon, Tantillo, Feldman, & Perrone (2004) was used in coding this variable for data analysis as follows: 1 = no knowledge, 2 = little knowledge, 3 = some knowledge, 4 = great knowledge.

*Previous Contact with Disability:* Previous contact with disability was defined as prior interaction with a person or persons with disability. The variable was treated as a categorical variable. The responses were coded as follows for analysis purposes: 1 = Casual contact, 2 = Workmate/friend, 3 = Family member, and 4 = No contact. Casual contact was defined as an interaction with persons with disabilities at informal settings and one who is not a relative or friend. Work/friend contact was defined as having a friend or a co-worker with a disability. Family contact was defined as having a family member or relative with a disability.

*Self-knowledge of Disability Law:* Self-knowledge of law was defined as self-reported knowledge of disability legislation. This was operationalized as a linear variable and was coded as follows: 1 = not familiar, 2=a little familiar, 3=moderately familiar, 4=familiar, 5=very familiar and 6=very much familiar.

*General Attitudes toward Disability:* This was operationalized by use of the Attitude Toward Disabled Persons (ATPD) scale (Form-O) and it was treated as a linear

variable. The variable was the dependent/criterion variable for Research Question 2 and an independent variable for Research Question 4.

*Attitudes toward organizational policies and procedures for employees with disabilities:* This variable was operationalized by use of the Organizational Policies and Procedures for Employees with Disabilities scale of the Attitudes Toward Employing Persons with Disabilities (ATEPD) measure and was treated as a linear variable. The variable was the dependent variable for Research Question 4.

### Data Analysis Procedure

Initially, data processing was undertaken to edit, code, and tabulate data in preparation for statistical analysis. All statistics were calculated using the Statistical Package for Social sciences (SPSS) Windows Version 17. Descriptive statistics (frequency distributions, means, and standard deviations) were computed for the demographic variables. The test of significance was set at  $p = .05$ . Pre-study researcher-designed conceptual models between independent/predictor variables and dependent/criterion variables for Research Questions 2 and independent and dependent variables for Research Questions 4 were constructed because of the analyses used. The following is an explanation of how each question was analyzed.

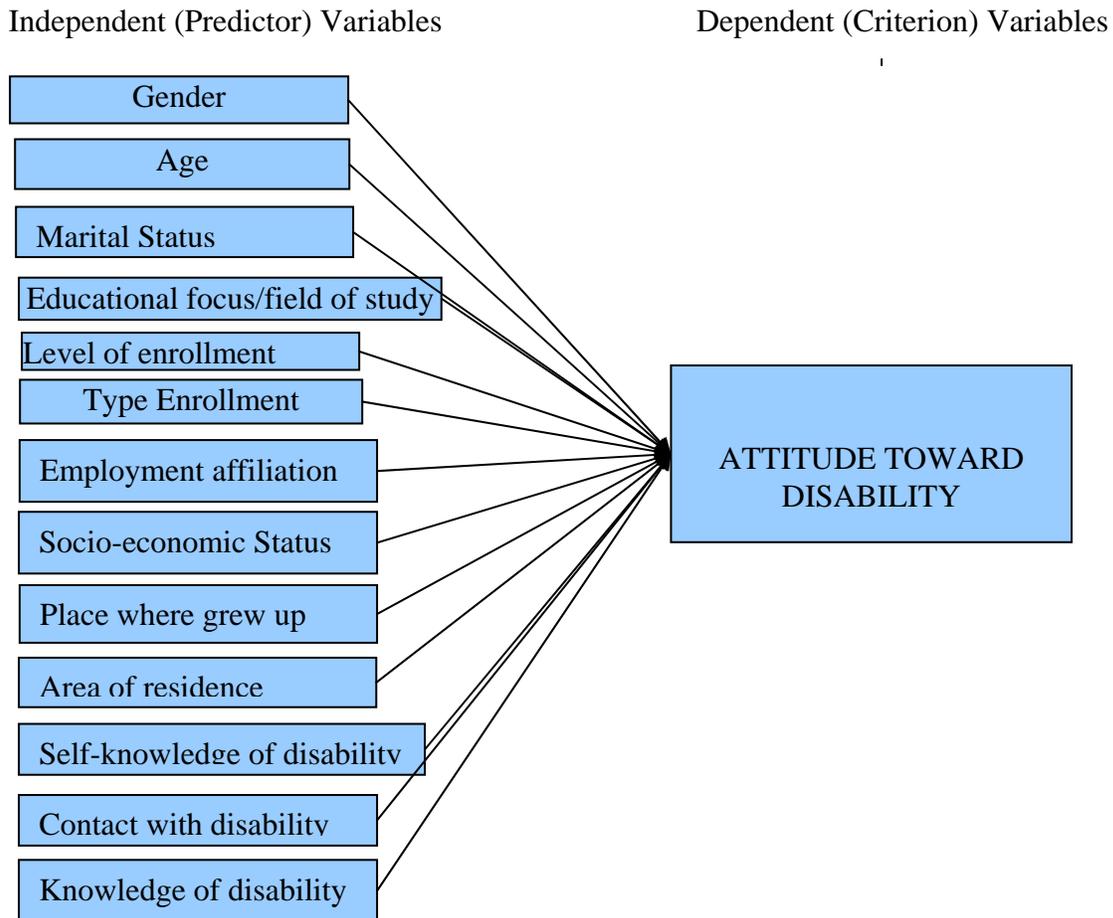
*Research Question 1.* “What are the general attitudes toward disability among undergraduate students at the University of Nairobi?”

Descriptive statistics were used to describe general attitudes toward individuals with disability. Scoring of the ATPD scale was done by computer. Guidelines outlined by (Yuker & Block, 1986) were followed in scoring the instrument. Scoring began with

changing the sign of some items of the scale (i.e., 2, 5, 6, 11, and 12). This was necessary in order to eliminate the negative signs. Once this was done, the total sum of the changed items was computed and the sign of the sum reversed (from negative to positive and vice versa). Total scores range from -60 to +60. In order to eliminate the negative values, a constant of 60 was added to the scores and the resultant scores ranged from 0 to 120. High scores are a reflection of positive and more accepting attitudes while low scores reflect a negative rejecting attitude (Antonac & Livneh, 1988; Yucker & Block).

*Research Question 2.* “What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi?” The pre-study researcher-designed conceptual model for Research Question 2 regarding the relationships between the independent/predictor variables and the dependent/criterion variable is illustrated in Figure 1.

Figure 1: Conceptual Model for Research Question 2



Source: Author's Compilation (2008)

Based on this model, it was hypothesized that general attitude toward disabled persons (ATPD) is a function of *gender (G)*; *age (A)*; *marital status (MS)*; *educational focus (EF)*; *level of enrollment (LE)*; *type of enrollment (TE)*; *employment affiliation (EA)*; *socio-economic status (SE)*; *place where one grew up (PG)*; *area of residence (AR)*; *Perceived knowledge of disability (KD)*; *previous contact with disability (PC)*; and *self-knowledge of disability law (KL)*;

Therefore:

F (ATPD) ← (G, A, MS, EF, LE, TE, EA, SE, PG, AR, KD, PC, KL)

Hence:

$$\text{ATPD} = a_1 G + a_2 A + a_3 \text{MS} + a_4 \text{EF} + a_5 \text{LE} + a_6 \text{TE} + a_7 \text{EA} + a_8 \text{SE} + a_9 \text{PG} + a_{10} \text{AR} + a_{11} \text{KD} + a_{12} \text{PC} + a_{13} \text{KL} + K$$

Regression analysis was run to calculate the predictive index of each independent/criterion variable for Research Question 2. Prior to running regression analysis, individual relationships between ATPD and linear variables were examined using Pearson Correlations. Two-sample *t-tests* were used to examine non-linear (2 categories) variables, while analysis of variance (ANOVA) was used to examine non-linear variables with multiple (>2) categories.

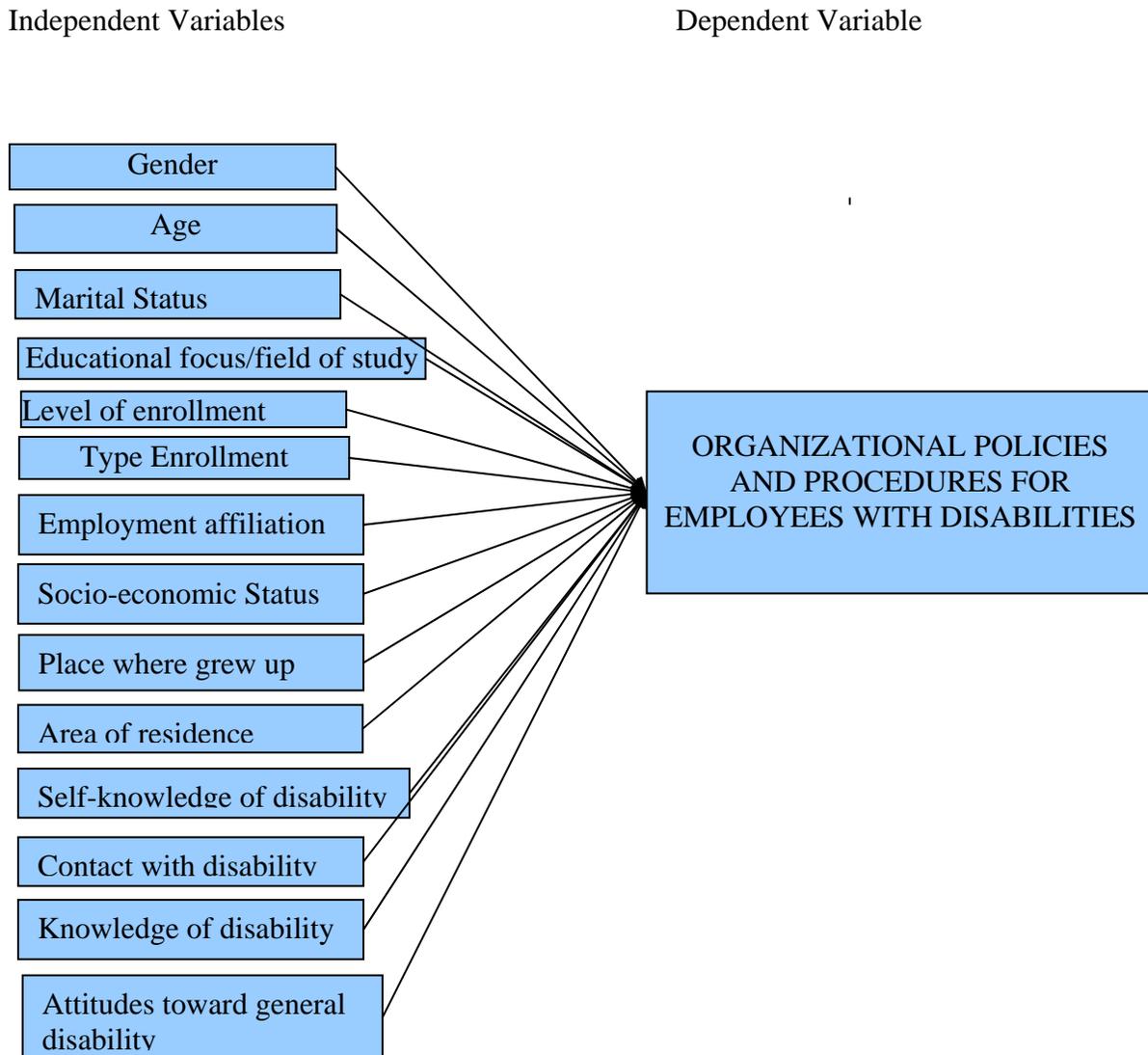
General multiple regression analysis was used to determine the possible predictors of general attitudes toward disabilities among the target population of study. With attitude toward disability as a criterion variable, possible predictor variables included gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation socio-economic status, area of residence, place where one grew up, perceived knowledge of disability, previous contact with disability, and self-knowledge of disability law.

*Research Question 3.* “What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?” Descriptive statistics were used to analyze data. The Attitudes Toward Organizational Policies and Procedures for Employees with Disabilities Scale of the ATEPD was used to measure attitudes towards employees with disabilities. As mentioned earlier, the ATEPD employs 6-point Likert-type scale responses that range from 1 (*strongly disagree*) to 6 (*strongly agree*). With this score range, the mid-point is

3.50. According to Loo (2002), the items are not summed into an overall score because they cover a diverse range of issues regarding the employment of people with disabilities. This means that each item mean was calculated separately. After analyzing the responses to the items on this instrument for the current study, it was noted that two the items (i.e., “Disabled employees, because they are disabled, should be paid less than able employees,” and “Disabled employees need extra training”) seemed to be stated in such a way that strong agreement with them (i.e., a higher score) was an indication of negative attitudes toward persons with disability. This situation will be further discussed in Chapters 4 and 5.

*Research Question 4.* “What are the relationships between independent variables (i.e., demographic variables and general attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?” The pre-study researcher-designed conceptual model for Research Question 4 regarding the relationships between the independent variables and the dependent variable is illustrated in Figure 2.

Figure 2: A Conceptual Model for Research Question 4



Source: Author's Compilation (2008)

Based on this model, it was hypothesized that attitudes toward Organizational Policies and Procedures for Employees with Disabilities (OP) is related to *gender* (G); *age* (A); *marital status* (MS); *educational focus* (EF); *level of enrollment* (LE); *type of enrollment* (TE); *employment affiliation* (EA); *socio-economic status* (SE); *place where grew up* (PG); *area of residence* (AR); *perceived knowledge of disability* (KD); *previous*

*contact with disability (PC); self-knowledge of disability law (KL); and general attitudes toward disability (ATPD).*

Therefore:

F (AD) —————> (G, A, MS, EF, LE, TE, EA, SE, PG, AR, KD, PC, KL, and ATPD).

Relations between these variables were analyzed using non-parametric tests because data were not normally distributed (Gibbons, 1996; Hollander & Wolfe, 1973). Non-parametric testing compares mean ranks whereas parametric testing compares means (Hollander & Wolfe). Individual relationships between Organizational Policies and Procedures for Persons with Disabilities Scale and linear variables were examined using Spearman's Rho Correlation. The Spearman's Rho Correlation Coefficient is a non-parametric equivalent to the Pearson Correlation. Non-linear binary (2 categories) variables were examined using Mann-Whitney U. The Mann-Whitney U is an alternative to a two-sample *t-test* used in parametric testing. Kruskal-Wallis was used for non-linear variables with multiple (>2) categories. The Kruskal-Wallis test is the non-parametric version of one-way ANOVA.

#### Limitations of the study

The present study has several limitations. First, the study relies heavily on literature from the United States. This may be an impediment because most of the information and perspectives are likely to be slanted toward this area (i.e., United States) where the researcher is obtaining his disability education. Perhaps this assumption might be mitigated by the fact that disability rights in Kenya have not developed at the pace of that in the US and that there is limited disability literature from Kenya. Second, direct

response methods are susceptible to numerous threats to validity (Antonak & Livneh, 2000; Thomas, 2001; Gething, 1994). For example, Cannon and Szuhay (1986) found the ATPD to be prone to faking. Individuals are likely to provide socially desirable answers when completing attitudes toward disability scales (Stone & Colella, 1996; Yuker, 1986). Third, both the ATPD scale and the ATEPD measure are attitudinal scales; therefore there may be a positive relationship between them, simply because they both measure attitudes. Fourth, the attitudes scales used in this study were developed in North America and they are normed based on this geographical region. There are no known Kenyan norms for the scales. Data from the present study were compared with normative data of the ATPD (Yuker & Block, 1986) and ATEPD (Loo, 2004). Fifth, the ATEPD scale has no known validity and reliability information, but the scale has been used in three published studies (Loo, 2001, 2002, 2004), and one public sector fellowship (Kirkwood, 2007). The instrument appears to be comprised of ambiguous items that are difficult to identify the direction regarding whether they represent negative or positive attitudes based on how they are stated. Sixth, because data were collected from a sample of convenience, it is not possible to generalize the results. The study is limited to one institution of learning; therefore care must be taken in assuming results will be valid in all contexts. The study is a snapshot of attitudes and perceptions at a moment in time and may not necessarily predict future opinions or behaviors. Further, because this study utilized a convenience sample rather than a random selection of students, there may be an element of 'expected' answers known as the Hawthorne Effect (Polit & Hungler, 1999), which may skew the results. Furthermore, no control group was utilized, a situation that may not allow for comparison with other population's general attitudes towards persons

with disability (Seccombe, 2007). To ameliorate this situation, the current findings were compared to findings from other studies. Seventh, this study utilizes a cross-sectional survey design. Although this design is may show a relationship, but it does not imply causality (Elliot, 2005).

## CHAPTER FOUR: RESULTS

Results of the study will be presented in this chapter. The results will be presented in chronological order. An alpha level of 0.05 was used except in circumstances where it will be stated otherwise. In reporting findings, the bulk of the chapter will present analyses for Research Question Two and Research Question Four.

### *Research Questions*

*Research Question 1:* What are the general attitudes toward disability among undergraduate students at the University of Nairobi?

Descriptive statistics were used to describe general attitudes toward individuals with disability as measured by ATPD scale. Scores range from 0 to 120. High scores reflect of positive and more accepting attitudes while low scores reflect a negative rejecting attitude (Antonac & Livneh, 1988; Yunker & Block, 1986). The study population mean attitude score was 64.29 ( $SD = 15.99$ ). The scores for the present study ranged between 24 and 106 with a mean of 64.29 ( $SD = 15.19$ ).

*Research Question 2.* What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi?

This question sought to establish the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi.

General multiple regression analysis was used to determine the possible predictors of general attitudes toward disabilities among the target population of study. With attitude toward disability as a criterion variable, potential predictor variables included gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, area of residence, place where one grew

up, perceived knowledge of disability, contact with disability, and self-knowledge of disability law.

Prior to running regression analysis, Table 1 was designed to list the mean scores of the ATPD scale across each potential predictor variable. This was done to provide an overview of the findings regarding general attitudes toward disability for the population of study (see Table 1).

Table 1. Mean Scores on the Attitude Toward Disabled Persons by Demographic Characteristics of Participants

Item	N	%	Mean ATPD Score	SD
All Students	298	100	64.29	15.19
Gender				
Male	113	38.2	62.91	15.16
Female	183	61.8	65.10	15.25
Marital Status				
Married	51	17.1	71.18	18.52
Not Married	247	82.9	62.87	14.05
Educational Focus				
Sociology	98	34.4	63.00	13.84
Social Work	35	12.2	63.03	14.06
Psychology	71	24.9	69.27	15.44
Political Science	50	17.6	59.86	15.86
Public Administration	13	4.6	68.69	14.13
Double Major	18	6.3	65.28	16.15
Type of Enrollment				
Full-time	144	48.3	61.77	14.04
Part-time	154	51.7	66.65	15.90

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Item	N	%	Mean ATPD Score	SD
<b>Employment affiliation</b>				
Not Employed	153	52.6	63.04	14.35
Government	34	11.7	69.79	16.86
Business	26	8.9	61.19	16.50
Non-government	66	22.7	63.65	13.74
Other	12	4.1	73.33	21.74
<b>Socio-economic Status</b>				
No Income	190	65.3	62.97	14.57
< 3000	7	2.4	62.97	14.57
3001- 10000	15	5.2	63.07	12.33
10001 – 20000	12	4.1	68.00	22.36
20001 – 30000	22	7.6	66.00	16.96
30000 – 40000	19	6.5	70.32	16.47
40001 +	26	8.9	65.65	14.72
<b>Place Grew Up</b>				
Rural	179	60.4	63.37	15.025
Urban	117	39.6	65.88	15.45

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Item	N	%	Mean ATPD Score	SD
<b>Area of Residence</b>				
Rural	48	16.2	59.81	10.40
Urban	248	83.8	65.21	15.87
<b>Previous Contact with Disability</b>				
Casual	159	54.0	64.08	15.80
Work-mate/friend	50	17.0	64.74	16.44
Family	55	18.8	65.47	14.33
No Contact	30	10.2	63.38	15.27
<b>Level of Enrollment</b>				
Second Year	158	53.7	63.44	15.72
Third Year	136	46.3	65.44	14.67
<b>Perceived knowledge of disability</b>				
No Knowledge	11	3.7	59.91	11.95
Little Knowledge	78	26.3	65.55	13.86
Some Knowledge	177	60.0	63.18	15.36
Great Knowledge	30	10.0	69.10	18.00

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Item	N	%	Mean ATPD Score	SD
Self-knowledge of Disability Law				
Not Familiar	116	39.0	64.21	15.65
A little Familiar	117	39.4	63.72	14.92
Moderately Familiar	36	12.1	65.22	15.24
Familiar	24	8.1	66.17	16.14
Very Familiar	3	1.0	63.67	8.96
Very Much Familiar	1	0.4	74.00	---
Age				
Mean = 24.09, SD = 4.44				
Range = 19 - 45				

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Further analyses were conducted prior to multiple regression analysis. Individual relationships between ATPD and linear variables were examined using Pearson Correlations. Non-linear binary (2 categories) variables were examined using two-sample *t-test*, and analysis of variance; ANOVA was used for non-linear variables with multiple (>2) categories. Linear variables were age, socio-economic status, perceived knowledge of disability, and self-knowledge of disability law. Age and ATPD were significantly positively correlated,  $r(268) = .221, p < .000$ . Other linear variables were not significantly related to ATPD.

*T-tests* were performed to determine the relationship between ATPD and binary categorical/nonlinear variables. Variables in this category were gender, marital status, type of enrollment, level of enrollment, place where one grew and area of residence. Results were not significant for gender, place where one grew, or level of enrollment. Results however indicated the married group possessed significantly higher attitude scores ( $M = 71.18, SD = 18.52$ ) than the non-married group ( $M = 62.87, SD = 14.05, = t(62.40) = 3.03, p = .004$ ). For type of enrollment, part-time students scored higher on the ATPD ( $M = 66.65, SD = 15.90$ ) than their full-time counterparts ( $M = 61.78, SD = 14.04, t(296) = -2.80, p = .005$ ). Students who lived in urban areas scored higher ( $M = 65.21, SD = 15.87$ ) than those who lived in the rural areas ( $M = 59.81, SD = 10.40, t(294) = -2.26, p = .002$ ).

Table 2 provides the results of Pearson Correlations. The table shows that age was significantly related to general attitudes toward disability. Older individuals had more positive general attitudes than younger individuals.

Table 2. Pearson Correlations between Linear Variables

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Measure	ATPD	Age	Social Economic Status	Knowledge of Disability	Knowledge of Disability Law
ATPD	--	.22*	.11	.05	.04
Age		--	.63*	.05	.75
Socio-economic Status			--	-.02	.11
Perceived knowledge of disability				--	.40*
Self Knowledge of Disability Law					--

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\*. Correlation is significant at the 0.001 level (2-tailed).

Analysis of variance (ANOVA) was conducted for educational focus, employment affiliation, and previous contact with disability. Neither socio-economic status  $F(6, 284) = 1.302, p = .256$ , nor previous contact with disability  $F(2, 290) = .164, p = .921$  was significantly related to general attitudes toward disability. Results indicated a relationship existed between attitudes and employment affiliation  $F(4, 286) = 2.78, p = .027$ . Post hoc tests using Tukey HSD, however, indicated no significant differences between the means of specific areas of focus. There was a significant relationship found between educational focus and attitude ( $F(5, 279) = 3.06, p = 0.10$ ). Post Hoc tests using Tukey HSD indicated that only the means for Political Science students ( $59.86, SD = 15.86$ ) was significantly different from that for Psychology students ( $69.2, SD = 15.44$ )

A general multiple regression analysis was used to determine the possible predictors of general attitudes toward disabilities among University of Nairobi students. Only age significantly predicted attitudes. Table 3 is a summary of the general multiple regression for variables that were entered into the regression model.

Table 3. *Summary of General Multiple Regression Analysis for Variables Predicting Attitude Toward Persons with Disability*

Variable	<i>df</i>	<i>F</i>	$\eta_p^2$	$\rho$
Gender	1	.680	.003	.411
Marital Status	1	.201	.001	.655
Educational Focus	5	1.840	.041	.106
Level of Enrollment	1	1.89	.001	.664
Type of Enrollment	1	.05	.000	.822
Employment Affiliation	4	1.83	.033	.124
Place Grew Up	1	1.68	.008	.197
Area of Residence	1	.543	.003	.462
Previous Contact with Disability	3	.253	.004	.859
Age	1	3.99	.018	.047
Socio-economic Status	1	.837	.004	.361
Perceived knowledge of disability	1	.052	.000	.820
Self-knowledge of disability law	1	.661	.003	.417

a. R Squared = .154 (Adjusted R Squared = .068)

\* $p = .05$

b.  $\eta_p^2 =$  Partial Eta Squared

As the table shows, none of the effects were significant except for age. Older students of the University of Nairobi had more positive attitudes than their younger counterparts. Although age showed a relationship, the magnitude of the effect was small (eta squared = .018). The overall R Squared for the model was also small ( $R^2 = .068$ ) indicating the overall effect of all the predictor variables was small.

*Research Question 3.* What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?

Descriptive statistics were used to analyze data for Research Question 3. The Attitudes Toward Organizational Policies and Procedures for Employees with Disabilities Scale of the ATEPD measure was used to measure attitudes towards employees with disabilities. As mentioned earlier, the ATEPD measure employs 6-point Likert type responses that range from 1 (*Strongly Disagree*), 2 (*Disagree*), 3 (*Slightly Disagree*), 4 (*Slightly Agree*), 5 (*Agree*), and 6 (*Strongly Agree*). With this score range, the mid-point is 3.50. According to Loo (2002), the items are not summed into an overall score because they cover a diverse range of issues regarding the employment of people with disabilities. This means that each item mean was calculated. Table 4 is a presentation of the means and standard deviation for each item of the Attitudes Toward Organizational Policies and Procedures for Employees with Disabilities Scale of the ATEPD measure.

Table 4. Means and Standard Deviation of the Attitudes Toward Organizational Policies and Procedures for Employees with Disabilities Scale of the ATEPD Measure

Item	<i>N</i>	Mean	Standard Deviation
Promotion: Item #2	299	3.19	1.826
Policies: Item #5	299	5.08	1.339
Pay: Item #6,	298	1.18	0.748
Staffing: Item #7	296	4.45	1.5
Recruitment: Item #9	295	2.01	1.426
Training: Item #11	296	3.89	1.727

The mean score for Promotion: Item #2, “Disabled employees should not receive any preferential treatment in promotion” was 3.19,  $SD = 1.826$ . As a group, University of Nairobi students slightly disagreed with this item.

The mean score for Policies: Item #5, “Organizations need to have human resource policies specifically for the disabled” was 5.08,  $SD = 1.339$ . This means that the University of Nairobi students agreed with the statement.

The mean score for Pay: Item #6, “Disabled employees, because they are disabled, should be paid less than able employees” was 1.18,  $SD = .748$ . The score

indicates that Nairobi University students strongly disagreed that employees with disabilities should be paid less than their non-disabled counterparts.

The mean score for Staffing: Item #7, “In the personnel selection process, organizations should give disabled employees special consideration” was 4.45,  $SD = 1.5$ . The students agreed to this concept.

The mean score for Recruitment: Item #9, “Organizations should not make special efforts to recruit disabled persons” was 2.01,  $SD = 1.426$ . This score is an indication that the University of Nairobi students did not agree with this statement.

The mean score for Training: Item #11, “Disabled employees need extra training” was 3.89,  $SD = 1.727$ . Although this score is somewhat neutral, there was a trend toward a view that employees with disabilities need extra training.

*Research Question 4.* What are the relationships between independent variables (i.e., demographic variables and general attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?

This research question sought to identify the relationships between independent variables (gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, area of residence, place where one grew up, perceived knowledge of disability, contact with a person with a disability, and self-knowledge of disability law as well as general attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among the University of Nairobi students.

Scores for each item on the Attitudes Toward Organizational Policies and

Procedures for Employees with Disabilities Scale of the ATEPD measure were not normally distributed (see figures Figure 3 - 9).

Figure 3. Item #2, “Disabled employees should not receive any preferential treatment in promotion”

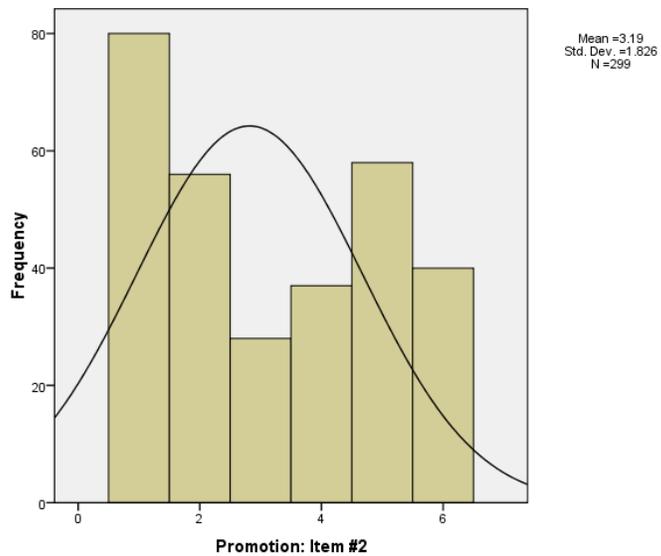


Figure 4. Item #5, “Organizations need to have human resource policies specifically for the disabled”

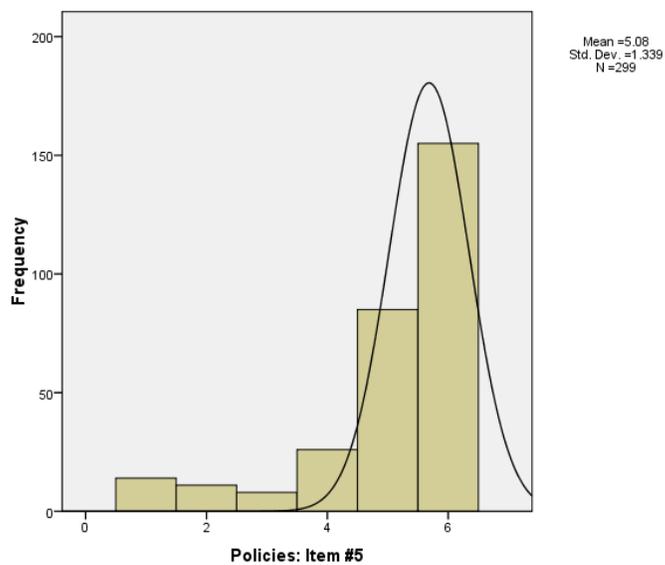


Figure 5. Item #6, “Disabled employees, because they are disabled, should be paid less than able employees”

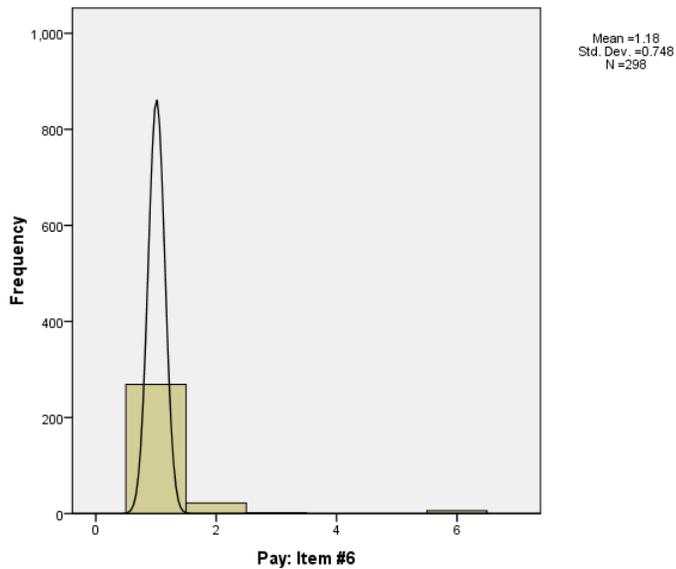


Figure 6. Item #7, “In the personnel selection process, organizations should give disabled employees special consideration”

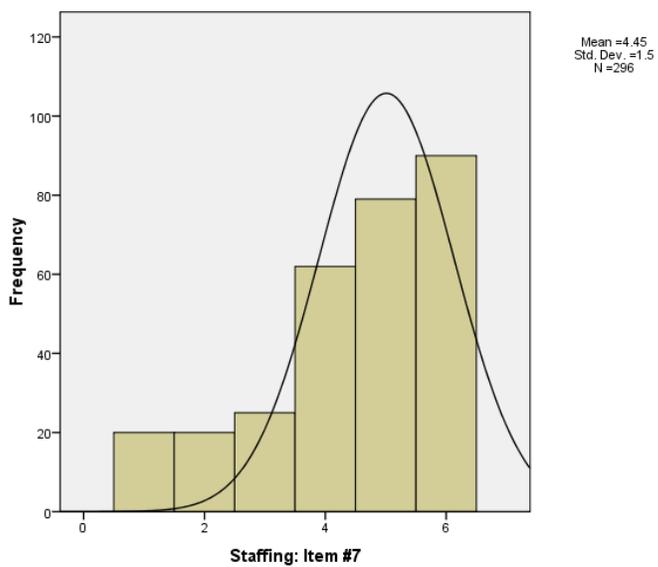


Figure 7. Item #9, Organizations should not make special efforts to recruit disabled persons”

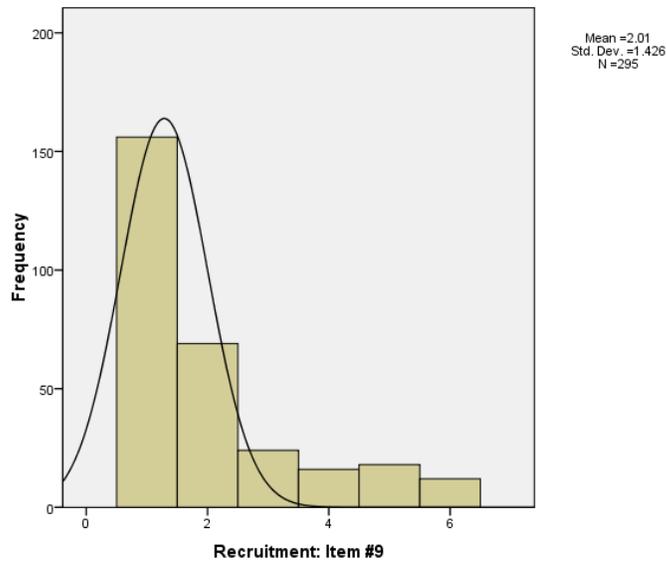
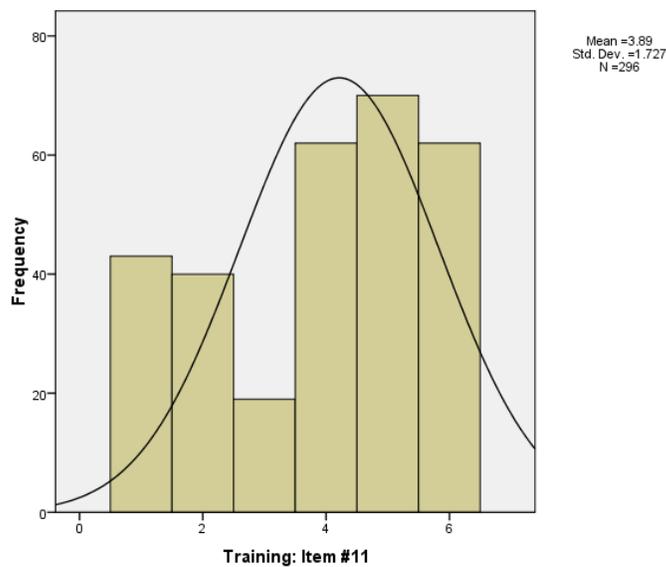


Figure 8. Item #11, “Disabled employees need extra training”



Because the data were not normally distributed; nonparametric testing was used to analyze data. As indicated earlier, nonparametric tests compare mean ranks whereas parametric tests compare means. Relationships between attitudes toward organizational

policies and procedures for employees with disabilities and age, socio-economic status, perceived knowledge of disability, and self-knowledge of disability law were analyzed using Spearman's Rho Correlation Coefficient. The results of the correlations are shown in Table 5.



\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*\*\*. Correlation is significant at the .001 level (2-tailed).

Age=age, SE=socio-economic status, KD = Perceived knowledge of disability, KL = Self Knowledge of Disability Law, Item #2, Promotion: Disabled employees should not receive any preferential treatment in promotion, Item #5, Organizations need to have human resource policies specifically for the disabled, Item #6, Disabled employees, because they are disabled, should be paid less than able employees, Item #7, In the personnel selection process, organizations should give disabled employees special consideration, Item #9, Organizations should not make special efforts to recruit disabled persons, Item #11, Disabled employees need extra training, and ATPD = Attitudes Toward Persons with Disabilities

Age negatively correlated with Item #5, “Organizations need to have human resource policies specifically for the disabled,”  $r(270) = -.18, p = .004$ . This means that older students tended not to think that organizations need to have in place human resources for employees with disability.

Age was also negatively correlated with Item #7, “In the personnel selection process, organizations should give disabled employees special consideration”  $r(268) = -.16, p = .010$ . This means that older students did not typically support the need for special consideration in personnel selection.

Socio-economic status was negatively correlated with Item #5, “Organizations need to have human resource policies specifically for the disabled,”  $r(292) = -.12, p = .039$ . This means that University of Nairobi students who had higher socio-economic status did not supported human resource policies for persons with disabilities.

ATPD was positively correlated with Item #2, “Disabled employees should not receive any preferential treatment in promotion”  $r(270) = .16, p = .007$ . This means that University of Nairobi students who had positive general attitudes toward disability felt that there should not be preferential treatment in promotion.

ATPD was negatively correlated with Item #6, Disabled employees, because they are disabled, should be paid less than able employees,  $r = (291) = -.16, p = .007$ . The students with positive general attitudes toward disability did not agree with the statement that employees with disability should receive low pay.

ATPD was also negatively correlated with Item #9, “Organizations should not make special efforts to recruit disabled persons,”  $r(288) = -.13, p = .026$ . The University of Nairobi students who had higher general attitude scores on ATPD did not agree with

the statement that organizations should not make provisions for recruitment of persons with disabilities. In other words, the students with higher ATPD scores endorsed special provisions in recruitment of persons with disabilities.

ATPD was negatively correlated with Item #11, "Disabled employees need extra training,"  $r = (289) = -.14, p = .018$ . University of Nairobi students with high general attitude scores did not support the need for extra training for employees with disabilities.

Mann-Whitney U tests were conducted to study the relationships between attitudes toward organizational policies and procedures for employees with disabilities and the independent variables of gender, marital status, level of enrollment, type of enrollment, place where one grew up, and area of residence). The Mann-Whitney tests indicated that gender, level of enrollment, type of enrollment, and area of residence were not related to any item of the attitudes toward organizational policies and procedures for employees with disabilities. The tests, however, showed that marital status was significantly related to Item #9, "Organizations should not make special efforts to recruit disabled persons,"  $z = -2.498, p = .012$ . The single students had higher average mean rank of 152.95, than their married counterparts who had mean rank of 121.90. This means that single University of Nairobi students were less likely to support special recruitment efforts for persons with disabilities than married students.

The place where one grew up was also significantly related to with Item #2, "Disabled employees should not receive any preferential treatment in promotion,"  $z = -3.006, p = .003$ . Those who grew up in the urban areas had higher mean ranks at 166.72 compared with those who grew up in rural areas whose average mean rank was 136.82.

This means that students who grew up in the rural areas were more likely to support preferential treatment in promotion than those who were brought up in urban areas.

Kruskal-Wallis tests were conducted to identify relationships between attitudes toward organizational policies and procedures for employees with disabilities and the independent variables of educational focus, employment affiliation, and previous contact with disability. The Kruskal-Wallis tests for employment affiliation and previous contact with disability were not significantly related to any of the employment scale items. Results, however, indicated statistical differences in mean ranks for educational focus and Item #6, “Disabled employees, because they are disabled, should be paid less than able employees,”  $\chi^2(5) = 11.74, p = .039$  as well as Item #9, “Organizations should not make special efforts to recruit disabled persons”  $\chi^2(5) = 18.30, p = .003$ . Post hoc tests using Mann-Whitney U were conducted to examine pair-wise comparisons. In order to minimize effects of alpha slippage, the alpha level was adjusted using Bonferroni, and comparisons were performed at  $0.05/15 = 0.0033$ . Significant results were found only for Item #9. Political Science and Sociology majors were significantly different on Item #9, “Organizations should not make special efforts to recruit disabled persons,”  $z = -3.84, p = .000$ . Political Science majors mean rank was 179.04 while Sociology majors mean rank was 128.58. This means that Political Science students were less likely than Sociology students to support special efforts in recruitment of persons with disabilities. Political Science and Psychology majors were also significantly different on Item #9, “Organizations should not make special efforts to recruit disabled persons,”  $z = -3.48, p = .001$ . Political Science majors’ mean rank was 179.04 while that for Psychology majors was 133.05. Political Science students were less likely to support special efforts in

recruitment of persons with disabilities than Psychology students were. It is important to note the results could be interpreted differently depending upon the cultural awareness and progress toward awareness of disability issues.

### *Summary of Results*

*Research Question 1.* What are the general attitudes toward disability among undergraduate students at the University of Nairobi? Students of Nairobi University scored lower on the ATPD scale than the normed population, an indication that they may be possessing less positive attitudes than people from other parts of the world. Seven independent variables (i.e., age, marital status, educational focus, type of enrollment, socio-economic status, place where one grew up, and area of current residence) were positively related to general attitudes toward. Six other independent variables (i.e., gender, level of enrollment, employment affiliation, perceived knowledge of disability, previous contact with disability, and self-knowledge of disability law) were not related to general attitudes.

*Research Question 2.* What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi? Results from a multiple regression analysis indicate that only age was a predictor of attitudes toward disability among University of Nairobi students.

*Research Question 3.* What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi? University of Nairobi students slightly disagreed with this item the statement, “Disabled employees should not receive any preferential treatment in promotion.” They agreed with the statement “Organizations need to have human resource policies specifically for the disabled.” The students strongly disagreed with the idea that

employees with disabilities should be paid less than their non-disabled counterparts, in the statement, “Disabled employees, because they are disabled, should be paid less than able employees.” The students agreed that “In the personnel selection process, organizations should give disabled employees special consideration.” The University of Nairobi students did not agree with the statement, “Organizations should not make special efforts to recruit disabled persons.” However, they tended to support extra training for employees with disability in the statement, “Disabled employees need extra training.”

*Research Question 4.* What are the relationships between independent variables (i.e., demographic variables and general attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi? Seven independent variables (i.e., age, marital status, educational focus, type of enrollment, socio-economic status, place where one grew up, and area of current residence) were positively related to some of the items of the attitudes toward organizational policies and procedures for employees with disabilities scale). However, there were no relationships found between attitudes toward organizational policies and procedures for employees with disabilities five other independent variables (i.e., gender, level of enrollment, employment affiliation, perceived knowledge of disability, previous contact with disability, and self-knowledge of disability law).

## CHAPTER FIVE: DISCUSSION & RECOMMENDATIONS

This chapter provides a review of the purpose, the research questions and discussion of the findings of the current study. Recommendations for action and suggestions for future research are also provided.

### Review of the Purpose and the Research Questions

The study was a cross-sectional survey among a convenience sample of undergraduate students at University of Nairobi's Main Campus majoring in Sociology, Social Work, Psychology, Political Science, and Public Administration. The purpose of this study was multifold; however the general purpose was to examine the attitudes toward disability by current and potentially future policy makers in Kenya. The research questions that guided the study were (1) "What are the general attitudes toward disability among undergraduate students at the University of Nairobi?" (2) "What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi?" (3) "What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?", and (4) "What are the relationships between independent variables (i.e., demographic variables and attitudes toward disability) and attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi?"

The study revealed that a number of variables were related to general attitudes toward disability as well as to attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi.

The study confirmed as well as contradicted some past research regarding attitudes toward disability.

## Discussion

This section discusses findings of the study and their implications for policy and practice. The discussions will be presented based on research questions in a chronological order.

*Research Question 1.* “What are the general attitudes toward disability among students among undergraduate students at the University of Nairobi?” The overall mean ATPD scores for participants in this study was 64.29. Yuker and Block (1986) identified 79.7 as the mean norm score across 38 studies. An internal consistency of the ATPD using Cronbach’s Alpha statistic of for the present study was 0.68. Because Cronbach’s alpha coefficient of 0.7 is normally considered to indicate a valid instrument (De Vaus, 2002), these similar Alpha levels indicate that the instrument was applicable for the population of the present study. Therefore the finding that the current participants’ mean score was approximately 16 points lower than the mean norm score (Yuker & Block) may be interpreted to mean participants in this study had less positive attitudes toward disability than those participants from countries other than Kenya. These explanation of this could be attitudes toward disabilities in Kenya where disability is often seen as burdensome and shameful and people with disabilities are viewed as burdens, useless, good for nothing, and cursed (Macha, Kieti, & Ngunyi, 2007); mysterious (Manyibe, et al., 2009); and being caused by witchcraft, curses from the gods/ancestors, and punishment from God, (Kiima et al., 2004; Ogechi & Ruto, 2002).

Because attitudes have been found to be associated with discrimination and biases toward persons with disabilities (Millington et al., 1996), these findings may confirm the assertion that persons with disabilities tend to be treated differently than non-disabled people in Kenya (Government of Kenya, 2008; Macha et al., 2007). Although the majority of the participants indicated they had some knowledge of disability (60%), the majority (78.4%) also indicated they had little or no familiarity with disability law. This is an indication that even though Kenya's Persons with Disabilities Act was enacted in 2003, the undergraduate students of the University of Nairobi are not aware of its existence. This confirms the statement that the law remains in paper only (Daily Nation, 2007). If this is the case, these findings may also confirm the assertion that persons with disabilities in Kenya may be isolated from society (Macha et al.).

*Research Question 2.* What are the predictors of general attitudes toward disability among undergraduate students at the University of Nairobi?

Prior to conducting a multiple regression, Pearson Correlations, *t*-tests and ANOVAs were performed to determine individual relationships between the criterion variable and all predictor variables (i.e., gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, place where one grew up, area of residence, perceived knowledge of disability, contact with a person with a disability, self-knowledge of disability law). Discussions of the relationships are provided in the order outlined above.

Gender was not related to ATPD scores among undergraduate students at the University of Nairobi. These findings are consistent with the findings of other researchers (Choi & Lam, 2001; Tervo, Palmer, & Redinius, 2004; Thomas, Doyle & Vaughn 2007;

Palmer, 2000) who reported no gender differences in attitudes toward disability. These findings, however, are different from other studies that indicated that women had more positive attitudes than men (Hergenrater & Rhodes, 2007; Hunt & Hunt 2000; 2004; Loo, 2002; 2004; Martin et al. 2005). This study therefore, in combination with similar studies, contributes to the mixed findings regarding the relationship between gender and attitudes toward disabilities.

Age and ATPD scores were significantly positively correlated. Older students of the University of Nairobi scored higher on the ATPD scale than their younger counterparts. This shows that older students held more positive general attitudes toward disability than did the younger students. These findings are similar to Findler et al. (2007), however, they are contrary to findings that age is not related to attitudes (Hergenrater & Rhodes, 2007; Hunt & Hunt, 2004; Thomas, et al. 2003). These findings may be interpreted to mean age is a factor in the Kenya in terms of how people view persons with disabilities.

Marital status was related to ATPD in the present study. Married students possessed higher general attitude scores than single students. These finding might be confounded by age, which significantly related to ATPD in the present study. This may be the case because age and marital status were positively related with age. Older students tended to be married ( $M = 30.35$ ) compared to the younger students who were more likely to be single ( $M = 22.77$ ).

Educational focus had a significant relationship with ATPD. Post hoc tests showed that only two groups were significantly different from each other. Psychology majors possessed significantly higher general attitude scores ( $M = 69.27$ ) than Political

Science majors ( $M = 59.86$ ). Furthermore, Political Science majors had the lowest score among all other majors. In order to understand why students majoring in Political Science possessed less positive attitudes, the researcher visited the University of Nairobi website to discern what the objectives of Political Science major are. The objectives, as listed on the website, are: (1) to understand and appreciate the role of politics in human life, (2) to equip students with skills of understanding and conducting research on politics, political processes and political systems globally, and (3) to acquire appropriate skills that can enable students to effectively participate and contribute to political development in the country (University of Nairobi, 2009). Based on these objectives, it appears Political Science students may be focusing on politics and not human service. Therefore these findings could be expected. The implication of this finding is that students who may be involved in politics will have less positive attitudes toward disability. If indeed this is the case, Political Scientists from the University of Nairobi who are or may become future policy makers may be less likely to support disability policy in Kenya. These findings are consistent with those for other comparative studies show that participants specializing in some fields possessed more positive attitudes than those from other fields. Occupational therapists possessed more positive attitudes toward disability than rehabilitation nurses and physical therapists (White & Oslon, 1998), while rehabilitation majors were found to hold more positive attitudes than business majors (Hunt & Hunt, 2000). Medical students and other healthcare students on the other hand held more positive attitudes than nursing students (Tervo et al. 2004) while in another study, nursing, occupational therapy and physical therapy students had more positive attitudes than social work students (Au & Man). Although not statistically significant, Public Administration majors had a higher

score on the ATPD scale than most of the other majors. This finding may be interpreted to mean present and future public Kenya administrators may be willing to incorporate disability issues in their administrative agenda.

Level of enrollment was not related to general attitudes toward disabilities in the present study. This finding may be due to the narrow range of level of enrollment included in the study. Only second and third year students were included in the study. This may be interpreted to mean that Kenyan students have similar attitudes toward disability across two education levels. This finding is contradictory to (Au & Man, 2006; Choi, & Lam, 2001) who found that higher education was positively related to attitudes toward persons with disability.

Type of enrollment was related to general attitudes toward disability. As indicated earlier, the variable was defined based on whether students were part-time or full-time. Part-time students scored significantly higher on the ATPD ( $M = 66.65$ ) than full-time students ( $M = 61.78$ ). Based on the researcher's experience with education system in Kenya, part-time students tend to be older. These findings may therefore have been confounded by age, which was found to be significantly positively related with general attitudes toward disability in the present study. As noted earlier, part-time students pay tuition out of pocket as opposed to full-time students whose education is subsidized by the government.

Employment affiliation was related to general attitudes toward disability based on results from ANOVA. Post hoc tests, however, did not find any significant difference between the various employment affiliations. Perhaps the reason that the current study did not yield significant differences in employment affiliation could be attributed to

disparities in the number of participants in each employment affiliation categories (i.e., Not employed (153), Government (34), Business (26), Non-governmental Organizations (66), and Other (12). The findings from this study contradict a study by (Hernandez, Keys, & Belalcazar, 2004) who reported that participants from private (for profit) establishments possessed more negative attitudes toward disability rights than those from public (non-profit) establishments. Although not significant, those employed by the government tended to have higher ATPD scores than those who worked in other places. The finding may imply that government employees may be more open to assisting persons with disabilities than those who are employed elsewhere. This is a little surprising considering, for example, that most NGOs operating in Kenya work for the disadvantaged people in society, yet these groups scored lower in the general disability attitude scale.

Socio-economic status was not related to disability in the present study. These findings may be attributed to disparities in the number of participants in each socio-economic status category (i.e., no income (190), less than 3000 (7), 3001 – 10000 (15), 10001 – 20000 (12), 20001 – 30000 (22), 30001 – 40000 (19), and 40000 and over (26). There was however, a trend toward people who reported moderate income to possess more positive general attitude than those who had low and higher incomes. The trend may be indicating that the poor and rich groups held less positive general attitudes than those with middle income. The findings however, are consistent with the findings of Findler et al. (2007) who reported that socio-economic status was not significantly related to attitudes toward disability.

Place where one grew up was not related to the ATPD. This may be a surprising finding considering that more persons with disabilities live in the rural areas (Government of Kenya, 2008) and the research findings consistently show that previous contact with disability has a positive effect on people's attitudes toward disability (Budisch, 2004; Chen et al., 2002; Choi & Lam, 2001; Thomas et al., 2003). The findings may also mean that University of Nairobi students who grew up in rural areas may not have had sufficient contacts with disability that may enhance their understanding of disability.

Previous contact with disability was not related with attitudes toward disability in the present study. Mean scores were very similar across all categories. The finding that previous contact with disability was not significant is contrary to past research findings that indicate that previous contact with disability has a positive relationship with attitudes toward disability (Budisch, 2004; Thomas et al., 2003; Chen et al., 2002; Choi & Lam, 2001). A majority of the participants (54%) reported having a casual contact with persons with disability. The findings may be interpreted to mean that the University of Nairobi students may not have had quality contacts with persons with disabilities. It may also be because this variable was treated as a categorical variable rather than a linear variable. Further inquiry regarding measurement of this variable might be in order.

Area of residence was related to general attitudes toward disability. Students who lived in urban areas had higher ATPD scores ( $M = 65.21$ ) than those who lived in the rural areas ( $M = 59.81$ ). The interpretation of these finding should be made with caution because of the following. There are large disparities in the number of students in the two categories. A majority of students 248 or (83.8%) indicated they resided in urban areas

while 48 or (16%) reported they resided in rural areas. This may be true because the University of Nairobi is situated in the city of Nairobi, an urban area. These disparities in responses may have influenced the ability to find significance. The findings, however, are consistent with Palmer, Rediniou, and Tervo (2000) who found that people who came from larger communities, mostly urban, had more positive attitudes toward disability than those smaller, mostly rural communities.

Perceived knowledge of disability was not related to general attitudes toward disability in the present study. These findings confirm findings by Budisch, (2004) and Gordon, et al. 2004) who reported no relationships between knowledge of disability and general attitudes toward disability. The findings are, however, contrary to other findings that knowledge of disability is related to attitudes toward disability (Hunt, 2004; Martin, et al. 2005). A small percentage (10%) of University of Nairobi students indicated they had great knowledge of disability. Although (60%) of the students indicated they had some knowledge, it did not have a positive effect on their attitudes toward disability. These disparities in these student's responses for this item may have influenced the ability to find significance.

Self-knowledge of disability law was not related to the general attitude score. This is contrary to past research in support of the view that knowledge of the law has a significant relationship with general attitudes toward disability (Hernandez, 2004). In his study, a significantly positive relationship between participants' assessed knowledge of the Americans with Disabilities Act (ADA) and their attitudes toward disability rights was found. An explanation for the current findings could be that the uneven distribution of responses to knowledge of the law may have influenced the ability to find significance.

From the findings, 78% were either not familiar or a little familiar with the law whereas only 1.4% reported that they were very familiar or very familiar with the law.

Results of multiple regression analysis to identify predictors of general attitudes toward disability among predictor variables (i.e., gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, place where one grew up, area of residence, perceived knowledge of disability, contact with a person with a disability, and self-knowledge of disability law) revealed that only age predicted general attitudes toward disability. Based on the researcher's conceptualization (see Figure 1), it was hypothesized that general attitudes toward disability, as measured by ATPD, was a function of all predictor variables mentioned above. The hypothesis was not accepted. Results from the Pearson Correlations between age and general attitudes were significantly positive,  $r(268) = .221, p < .000$ . As indicated earlier older University of Nairobi students held more positive general attitudes toward disability than younger students. The finding may be interpreted to mean that the world view of persons with disabilities in Kenya may be better among Kenya's future generation. This may be an important milestone in disability issues in Kenya because it may be indicative of a more inclusive future for persons with disabilities in Kenya.

*Research Question 3.* What are the attitudes toward organizational policies and procedures for employees with disabilities among undergraduate students at the University of Nairobi? The attitudes toward organizational policies and procedures scale of the ATEPD measure was used to answer this question. The scale was selected because it was the only one found in the literature that measures aspects that are mandated by

Kenya's Persons with Disabilities Act of 2003 regarding employment, aspects that were pertinent for the current study.

Analyzing the data produced by this scale was difficult because the instrument appeared to be comprised of ambiguous items regarding whether they represent negative or positive attitudes. Some items seemed to be stated positively (positive attitude), whereas others seemed to be stated negatively (i. e., negative attitude). Other items were so ambiguous that it was unclear whether they represented a positive or negative attitude. Although Loo (2002) indicated that it might be possible to recode the direction of items with negative wording, it was difficult to do this because identifying the direction to recode the items was unclear and not specified by Loo. The items were, therefore, treated as individual dependent variables for data analysis. The reader is reminded that the scale ranges from 1 (*strongly disagree*) to 6 (*strongly agree*) with 3.50 being the mid-point score.

To understand the findings and to provide a basis on which to discuss them, results for the Canadian student sample (Loo, 2002: 2004) were compared with the present Kenyan sample (See Appendix I). These comparisons are discussed in the following paragraphs.

Promotion: Item #2, "Disabled employees should not receive any preferential treatment in promotion." Kenyan students slightly disagreed with the statement. The Canadian students agreed somewhat more to this statement than the Kenyan students. Canadian students were more likely to believe that employees with disabilities should be treated the same as nondisabled employees with regard to promotion than Kenya students. The meaning of this item was difficult to interpret because "preferential

treatment” in promotion could be considered to be a positive or negative attitude depending upon one’s point of view. For example a person with a disability may be promoted owing to the fact that the person has a disability or the person may be promoted depending upon their qualification or merit.

Policies: Item #5, “Organizations need to have human resource policies specifically for the disabled.” Kenyan students endorsed the concept that organizations should put in place human resource policies for persons with disabilities. These findings were similar to those of the Canadian students.

Pay: Item #6, “Disabled employees, because they are disabled, should be paid less than able employees.” Kenyan students strongly disagreed with this item. These findings are similar to those of the Canadian students.

Staffing: Item #7, “In the personnel selection process, organizations should give disabled employees special consideration.” Kenyan students agreed to the need for special consideration in personnel selection in organizations. Canadian students somewhat disagreed with this need. This item was difficult to interpret because it was not clear whether agreement with this statement was positive or negative. The item could be interpreted in various ways because the term, “special consideration,” could have many meanings. For example, it could mean hiring persons because of their disability or making the selection process fair to all by providing necessary accommodations to prospective employees during the hiring process in order to select people based upon their qualification and the capability of the person to do the job functions.

Recruitment: Item #9, “Organizations should not make special efforts to recruit disabled persons.” Kenyan students disagreed with the need for special efforts in

recruitment of persons with disabilities, whereas Canadian students slightly disagreed with the item. This item may also be interpreted in different ways because “special efforts” may have different meanings. The phrase “special effort” may mean screening and selecting people during recruitment based on their disability status or providing necessary accommodations for persons with disabilities during the recruitment process to enable them to fairly compete with their nondisabled counterparts.

Training: Item #11, “Disabled employees need extra training.” Kenyan students agreed slightly with the need for extra training for persons with disabilities. Canadian students slightly disagreed with the item; however both responses were quite similar. This item is also ambiguous because it may elicit different interpretations. Special training may be regarded positive for employees with developmental disabilities but negative for those with physical disabilities.

Overall, both groups seemed to possess somewhat positive attitudes toward employment of persons with disabilities. The implication for Kenyan students could be that when it comes to employment issues, they seem to be somewhat supportive of persons with disabilities in regard to employment.

*Research Question 4.* What are the relationships between independent variables (i.e., gender, age, marital status, educational focus, level of enrollment, type of enrollment, employment, affiliation, socio-economic status, place where one grew up, area of residence, perceived knowledge of disability, contact with a person with a disability, self-knowledge of disability law, and general attitudes toward disability) and the dependent variable (i.e., attitudes toward organizational policies and procedures for employees with disabilities) among undergraduate students at the University of Nairobi.

It was hypothesized that that attitudes toward Organizational Policies and Procedures for Employees with Disabilities are related to all these dependent variables (Figure 2).

Findings of this study support some of the hypotheses and do not support others. As indicated earlier, the ambiguous nature of the individual items with regard to whether they represent positive or negative attitudes made it difficult to interpret the results.

Six independent variables (i.e., gender, level of enrollment, employment affiliation, perceived knowledge of disability, previous contact with disability, and self-knowledge of disability law) were not related to any items if the organizational policies and procedures scale of the ATEPD measure. These results are consistent with those found using ATPD for the present study.

Age correlated positively with Item #2, “Disabled employees should not receive any preferential treatment in promotion.” Older students were less likely to support preferential treatment in promotion in the workplace than younger people. This finding may indicate the younger generation may be more accommodative to persons with disability in the workplace. The implication of this is that persons with disabilities in Kenya may have a bright future when the younger leaders assume management positions. Alternatively, it may be an indication that older Kenyan students are less likely to view people with disabilities to compete equally. In other words the older Kenya students may not support equal opportunity for all regardless of disability.

Age was negatively correlated to Item #5, “Organizations need to have human resource policies specifically for the disabled.” Older students were less likely to support a need for human resource policies for employees with disability than younger students. The older students might be more likely than younger students to believe that all persons,

regardless of disability, should be allowed to compete freely in employment. This may be a positive attitude if looked in light of “disability is not inability.” This may be also be interpreted to mean that older students are less likely to view people with disabilities to compete equally. In other words the older Kenya students may not support equal opportunity for all regardless of disability.

The younger students who represent future leaders may have believed that persons with disabilities need specific policies if they have to compete for available opportunities in organizations. These findings may be viewed through the lenses of previous research indicating that, although employers tend to say that they willing to hire persons with disabilities but in practice, they tend to hire people without disabilities (Hernandez, Keys, Belalcazar, 2000) due to lack of understanding of the potential of persons with disabilities in carrying out job functions (Robinson, 2000), negative attitudes (Crudden et al., 2005), and fear based on myths (Peck & Kirkbride, 2001).

Age was also negatively correlated with Item #7, “In the personnel selection process, organizations should give disabled employees special consideration.” This means that older students were less likely to support the need for special consideration in personnel selection than their younger counterparts. These findings may indicate that older students believe that people should be selected to jobs based on merit and not their disability status. On the other hand, the younger students may have felt that persons with disabilities may benefit from “special consideration” in the personnel selection such as being granted necessary accommodations to compete for available jobs vacancies. The finding contradicts past research that did not find significant relationships between age

and attitudes (Findler et al. 2007; Hergenrather & Rhodes, 2007; Hernandez, 2004; Hunt & Hunt, 2004; and Thomas, et al., 2003).

Socio-economic status (i.e., income level) was negatively correlated to Item #5, “Organizations need to have human resource policies specifically for the disabled.” This means that University of Nairobi students who had higher economic status were less likely to support human resource policies for persons with disabilities than their counterparts from lower socio-economic status. Because age was found to correlate negatively with this item, this finding may be translated to mean that the variable was confounded by age owing to a positive relationship between age and socio-economic status. The older and affluent students who represent present managers may not be willing to open up opportunities for persons with disabilities.

Marital status and attitudes toward organizational policies and procedures for persons with disabilities were significantly related for Item #9, “Organizations should not make special efforts to recruit disabled persons,”  $z = -2.498, p = .012$ . The single students had higher average mean ranks of 152.95, than their married counterparts who had mean rank of 121.90. This means that single University of Nairobi students were less likely to approve of special efforts for recruitment of persons with disabilities than their married counterparts. Married students may have believed that there was a need to support persons with disabilities because of their vulnerable position in society. However, this statement may be interpreted negatively to mean that organizations should recruit persons with disabilities owing to their disability status, regardless of their qualification for the job.

Educational focus was significantly related to Item #9, “Organizations should not make special efforts to recruit disabled persons.” Political Science majors had a higher mean rank at 179.04 than Sociology majors whose mean rank was 128.58. This may be an indication that Political Science majors were less likely to support special efforts to recruit persons with disabilities than Sociology majors. Similarly, Political Science and Psychology majors were also significantly different on Item #9, “Organizations should not make special efforts to recruit disabled persons.” Political Science majors’ mean rank was 179.04 whereas Psychology majors had a mean rank of 133.05. This may be interpreted to mean that Political Science majors were less likely to support special efforts to recruit persons with disabilities than Psychology majors. Political Science graduates are more likely to be involved in policy formulation. The implications of these findings may be less favorable policies regarding recruitment of persons with disabilities in Kenya. Psychology and Social Work students may be more likely to implement policies to recruit people with disabilities. Graduates from these two majors are, therefore, more likely to support implementation of efforts aimed at promoting disability related issues in the workplace, including implementation of the PDA.

The place where one grew up and Item #2, “Disabled employees should not receive any preferential treatment in promotion” were significantly related. Those who grew up in the urban areas had higher mean ranks at 166.72 compared with those who grew up in rural areas whose average mean rank was 136.82. This means that students who grew up in urban Kenya would be less likely to give preferential treatment in promotion.

The finding that ATPD (i.e., general attitudes toward disability) was positively

significantly correlated with Item #2, “Disabled employees should not receive any preferential treatment in promotion” may imply that students with higher general attitudes toward disability were more likely to think that promotion should be merit-based as opposed to based on special consideration, and that persons with disabilities should be judged by their job performance.

The finding that the ATPD was also negatively correlated with Item #9, “Organizations should not make special efforts to recruit disabled persons” may have been expected. In other words, it would be expected that people who had more positive attitudes would believe that it is important to recruit persons with disabilities and that they would support opportunity for persons with disability to compete fairly for employment. Special efforts might include special accommodations during the recruitment process such as accessibility, translation, and other support services.

The ATPD was negatively correlated with Item #11, “Disabled employees need extra training.” This finding could be an indication that University of Nairobi students with high general attitude may possess strong believes in equal opportunity and equal skills, regardless of disability. However, the item was somewhat ambiguous with regard to whether it was positive or negative.

### Recommendations

Based on the findings of the current study, the researcher provides some recommendations. These recommendations are discussed below and have been classified into education, policy and further research.

*Education.* The finding that students at the University of Nairobi possess less positive general attitudes toward disability than the normed populations (Yuker & Block, 1986) could mean these students may benefit from strategies that improve their general attitudes. These strategies may include researching and writing term papers dealing with disabilities, from the perspective of their field of study, on topics such as reasonable accommodation in the workplace, disability in the workplace (Loo, 2002), role plays about disability, group discussions on disability issues (Loo, 2004) and self-assessment exercises using some disability scales to let the students evaluate their own attitudes (Hutchinson & Allen, 1997). Students may also learn more about disability and disability related issues by visiting local organizations that serve persons with disability and listening to guest speakers with disabilities as well individuals from organizations that work with persons with disabilities. The mentioned strategies may mitigate negative attitudes among University of Nairobi.

*Policy.* Because of the finding that many students of the University of Nairobi possess little of no knowledge of disability law, it may be beneficial to familiarize these students with relevant disability legislation such as the Persons with Disabilities Act of 2003. According to Silverstein (2000), institutional barriers such as policies, practices, and procedures adopted by entities such as employers, businesses, and public agencies contribute to the isolation of persons with disabilities from society. As present and possible future employers, the students may benefit from the knowledge of the PDA as it relates to important organizational functions. Section 12 of the PDA promotes access to equal opportunities in employment as well as treatment in the workplace, regardless of

disability. Section 15 prohibits discrimination against disability in relation to recruitment, pay, promotion and training, among other organizational functions.

Furthermore, the fact that many Kenya students are ignorant of the Persons with Disabilities Act and its provisions may be an indication that the law is not being implemented. The government of Kenya, with the help of other stakeholders should ensure full implementation of the PDA. As centers for excellence, universities should incorporate disability issues and laws into their programs. A good place to start would be to infuse disability studies in course syllabi in major fields of study such as Political Science. The other step would be to establish disability programs that would provide students with opportunities to study disability issues in order to work with this population. Universities students may also benefit from exchange programs with foreign universities in countries where disability rights and disability law have taken root, such the United States and Canada. These international programs may enable students to learn from their counterparts in these countries as well as enable the students to participate in disability issues through experiential studies. These are policy issues and as Haas and Springer (1998) say, one of the purposes of policy research is to inform decisions that may otherwise be based on guesswork or personal preferences.

*Research.* Future research is recommended in the following areas. First, because Kenyan students tended to possess lower scores of the general attitudes toward disability than the normed populations in other countries (Yuker & Block, 1986), further research should be undertaken to identify the combination of reasons why this is so. Second, because of the inherent problems found with the organizational policies and procedures for employees with disabilities scale (i.e., ATEPD), instruments to study attitudes toward

employment of persons with disabilities among African students should be developed. Third, although there were interrelationships found among variables, causality cannot be assumed. Future research utilizing experimental or longitudinal designs can focus on causality. Fourth, because this study took place in a single university in Kenya, findings may not be generalized for the whole country. Further attitude research, therefore, is recommended in other institutions of learning and places of employment. Furthermore, an examination of a wider sample of the general population would be instructive, particularly if new instrumentation can be devised to study attitudes toward employment policy issues for persons with disabilities. Fifth, future research may code the variable previous contact with disability as a categorical variable with 0 = no contact, 1 = casual contact, 2 = friend/work-mate, and 3 = family member. Sixth, if deemed important by the government, some qualitative study might be helpful (e.g., focus groups) conducted by trained local residents to study both general attitudes toward disability as well as attitudes toward employment policy issues among persons with disability.

In conclusion, the government of Kenya has shown its commitment to provision of opportunity for persons with disabilities through the enactment of the PDA. This study revealed that Kenyan students possess less positive general attitudes toward disability compared to people from other countries. Research has indicated that the greatest barrier to rehabilitation of persons with disabilities is negative attitudes prevalent in society. It is important to find effective ways to eliminate this impediment in order to ensure persons with disabilities integrate fully in the Kenyan society.

APPENDIX A  
SUBJECTS DISCLOSURE FORM

(Survey)

Title of Project: *Predictors of Attitudes Toward Disability and Employment Policy Issues among Sociology, Social Work, Psychology, Political Science, and Public Administration Majors at the University of Nairobi.*

You are being invited to voluntarily participate in the above-titled research study. The purpose of the study is to examine the attitudes toward disability as well as attitudes toward organizational policies and procedures for employees with disabilities and to investigate predictors of attitudes toward disability and disability policy issues among students enrolled at University of Nairobi. You are eligible to participate because you are enrolled at the University of Nairobi, and you participating in one of the following courses: Sociology, Social Work, Psychology, Political Science, and Public Administration.

If you agree to participate, your participation involves a completion of (a) a demographic questionnaire; (b) the Attitudes Toward Disabled Persons scale (ATPD) Form-O; and (c) attitudes toward organizational policies and procedures for employees with disabilities scale of the Attitudes Toward Employing Persons With Disabilities scale (ATEPD) measure.

The survey will take place in a location convenient for you and will last approximately 15 minutes. You may choose not to answer some or all of the questions.

Any questions you have will be answered and you may withdraw from the study at any time. There are no known risks from your participation and no direct benefit from your participation is expected. There is no cost to you except for your time and you.

In order to maintain your confidentiality, your name will not be revealed in any reports that result from this project. Interview information will be locked in a cabinet in a secure place.

You can obtain further information from the principal investigator, George Mamboleo, Ph.D. candidate, at (520) 270-0170 or via email at [gim@email.arizona.edu](mailto:gim@email.arizona.edu). If you have questions concerning your rights as a research subject, you may call the University of Arizona Human Subjects Protection Program office at (520) 626-6721.

By participating in the interview(s), you are giving permission for the investigator to use your information for research purposes.

Thank you.

George Mamboleo

Principal Investigator

APPENDIX B  
DEMOGRAPHIC QUESTIONNAIRE

Please answer all items

1. Gender:
  - a. Male
  - b. Female
2. Age \_\_\_\_\_
3. Marital Status
  - a. Married
  - b. Single
  - c. Divorced
4. Educational focus:
  - a. Sociology
  - b. Social Work
  - c. Psychology
  - d. Political Science
  - e. Public Administration
5. Level of enrollment:
  - a. Second year
  - b. Third year
6. Type of enrollment:
  - a. Full-time
  - b. Part-time
7. Employment Affiliation
  - a. Government institution
  - b. Business organization
  - c. Non-government organization (NGO)
  - d. Church organization
  - e. Other
  - f. Not employed
8. Social Economic Status. Please select one that applies to you based on your monthly income.
  - a. 1= No income
  - b. 2= Ksh. 3,000
  - c. 3= Ksh. 3,001-10,000)
  - d. 4= Ksh. 10,001 - 20,000)
  - e. 5= Ksh. 20,001 - 30,000)
  - f. 6= Ksh. 30,001 - 40,000
  - g. 7= Ksh. 40,001 50,000+)
9. Where did you grow up?
  - a. Rural area
  - b. Urban area
10. Residence. Where do you currently live?

- a. Rural area
  - b. Urban area
11. How much knowledge do you have about disability?
- a. No knowledge
  - b. Little knowledge
  - c. Some knowledge
  - d. Great knowledge
12. Have you had contact with a person with a disability? Choose ONE that applies to you most.
- a. No contact
  - b. Casual contact (someone with a disability that is not your relative, friend or coworker)
  - c. Workmate/friend (friend with a disability or coworker with a disability)
  - d. Family member (a family member with a disability)
13. How familiar are you with laws regarding disability
- a. Not familiar at all
  - b. A little familiar
  - c. Moderately familiar
  - d. Familiar
  - e. Very familiar
  - f. Very much familiar

APPENDIX C  
ATTITUDE TOWARD DISABLED PERSONS SCALE FORM – O

Mark each statement according to how much you agree or disagree with it.  
Please mark each statement. Write +, +2, +3 or -1, -2, -3, depending on how you feel in each case:

- +3 = I agree very much
- +2 = I agree pretty much
- +1 = I agree a little
- 1 = I disagree a little
- 2 = I disagree pretty much
- 3 = I disagree very much

- 1 Parents of disabled children should be less strict than other parents.
- 2 Physically disabled persons are just as intelligent as non-disabled ones.
- 3 Disabled people are usually easier to get along with than other people.
- 4 Most disabled people feel sorry for themselves.
- 5 Disabled people are the same as anyone else.
- 6 There shouldn't be special schools for disabled children.
- 7 It would be best for disabled persons to live and work in special communities.
- 8 It is up to the government to take care of disabled persons.
- 9 Most disabled persons worry a great deal.
- 10 Disabled people should not be expected to meet the same standards as non-disabled.
- 11 Disabled people are as happy as non-disabled ones.
- 12 Severely disabled are no harder to get along with than those with minor disabilities.
- 13 It is almost impossible for a disabled person to lead a normal life.
- 14 You should not expect too much from disabled people.
- 15 Disabled people tend to keep to themselves much of the time.
- 16 Disabled people are more easily upset than non-disabled people.
- 17 Disabled persons cannot have a normal social life.
- 18 Most disabled people feel that they are not as good as other people.
- 19 You have to be careful what say when you are with disabled people.
- 20 Disabled people are often complaining.





## APPENDIX E SPECIFIC TRAINING FOR THE RESEARCH ASSISTANT

This study will be conducted by the principal investigator (a PhD student at the University of Arizona) who will be assisted by a research assistant under the supervision of an assistant supervisor in accordance with requirements by the Government of Kenya and the University of Nairobi, Kenya. The research assistant is master's student at the University of Nairobi, Kenya and the assistant supervisor is a Senior Lecturer at the same institution, who has been approved by both the Human Subjects Committee of the University of Arizona and the dissertation committee.

The principal researcher will train the research assistant on how to respect and protect privacy and confidentiality of research participants. The training will include how the research assistant will: (a) recruitment of participants, (b) introduction of the study to participants, (c) data collection, and (d) treatment of information obtained from participants.

### a. Recruitment of participants

Recruitment will be done by approaching all lectures teaching undergraduate courses in the majors that fit the criteria for this study to request that they allow their students participate in a research survey. Once they accept, they will be requested to inform students about the study a week in advance. An advertisement (Appendix F) for the study will be given to the faculty to circulate in class. A copy of the advertisement will be pinned in the class notice-boards as well as outside of classrooms for the selected classes.

Classes whose lectures will be willing to allow their students take part in the survey will be selected on first-come first-served basis. During the following

week, the research assistant will visit each of the selected classrooms to distribute the research packet. The following table will guide data collection process.

Classroom Visitation Chart for Data Collection

Field of study	Initial # of Classrooms to be Visited <sup>a</sup>	Additional# of Classrooms to be visited if Necessary <sup>b</sup>
Sociology	2	1-3
Social Work	2	1-3
Psychology	2	1-3
Political Science	2	1-3
Public Administration	2	1-3

a. Visit two classrooms from each major field of study on a first-come first-served basis to obtain completed questionnaires from approximately 200 students.

b. Visit additional classrooms if unable to collect data from approximately 200 students during initial visitation.

b. Introduction of the study to participants

The research assistant will read the introduction to the study to participants

(Appendix G) prior to distribution of the survey.

c. Data collection

The research assistant will distribute the survey and will ask the participants to read the Subject Disclosure Form to understand their rights prior to participation.

Because the research assistant is a master's student, he will be trained not to use his position to coerce students to participate in the study. He will be informed that

all participation will be voluntary and will be asked to communicate the same to the participants.

d. Treatment of information obtained from participants

The research assistant will be asked not to share the data collected with anybody. He will be asked to send it in a sealed box to the principal researcher from Kenya to US via Express Service.

APPENDIX F  
ADVERTISEMENT - INVITATION FOR PARTICIPATION IN RESEARCH

*Title: Predictors of Attitudes toward Disability and Employment Policy Issues*

*Among Undergraduate Students at the University of Nairobi.*

*A Survey*

You are invited to participate voluntarily in the above-titled research. The purpose of this research is to examine the attitudes toward disability as well as attitudes toward organizational policies and procedures for employees with disabilities and to investigate predictors of attitudes toward disability and disability policy issues among undergraduate students at University of Nairobi. The study results will be used for a dissertation for a partial fulfillment of requirement for a PhD. program for George Mamboleo at the University of Arizona in Tucson, USA.

The criterion for participation in the study is current enrollment at the University of Nairobi, Main Campus and undergraduate any of the following majors:

Sociology, Social Work, Psychology, Political Science, or Public Administration.

Participation in this study is completely voluntary and one may discontinue participation in the study at any time without reason. This study is anonymous and no identifying information will be asked. Participation in this study in no way affects status in degree program or grades in courses in any program.

APPENDIX G  
INTRODUCTION TO THE STUDY BY THE RESEARCH ASSISTANT

I have been asked to read this information to you before you participate in this study. You are invited to participate voluntarily in the study titled: *Predictors of Attitudes toward Disability and Employment Policy Issues among Undergraduates at the University of Nairobi*. The purpose of this research is to examine predictors of attitudes toward disability and organizational policies and procedures for employees with disabilities among undergraduate students at University of Nairobi. The study results will be used for dissertation purposes for a partial fulfillment of requirement for a PhD program for George Mamboleo at the University of Arizona in Tucson, USA.

You are being invited because you are currently enrolled at the University of Nairobi, Main Campus as an undergraduate in one of the following majors: Sociology, Social Work, Psychology, Political Science, and Public Administration. Participation in this study is completely voluntary and you may opt to discontinue participation at any time without reason. This study is anonymous and no identifying information will be asked. Participation in this study will in no way affect status in your degree program or grades in any courses you are registered in.

The information you provide will be used solely for research purposes and will be kept confidential and in a secure place in by the principal researcher and will not be shared with anybody. The information will be disposed of in accordance with regulations of the University of Arizona's Human Subject's Protection Committee.

Prior to participation, please read and understand the Subjects' Disclosure Form included in the survey packet. In case you have completed the survey in another class, please do not complete it again.

APPENDIX H  
SCRIPT OF INFORMATION TO LECTURERS AT THE  
UNIVERSITY OF NAIROBI TO REQUEST THEM TO  
ALLOW THEIR STUDENTS TAKE PART IN A SURVEY

Dear Prof./Dr./Mr./Mrs. ....

George Mamboleo, a PhD candidate at the University of Arizona, USA has requested me to kindly ask you to allow your students assist him in collecting data for his dissertation research. The title of his research is: *Predictors of Attitudes toward Disability and Employment Policy Issues among Undergraduate Students at the University of Nairobi*. Your class has been chosen because it is in the following majors which are criteria for participation in the study: Sociology, Social Work, Psychology, Political Science, and Public Administration. The survey will take approximately 15 minutes of class time. I kindly ask you to allow your students to take part in this study. Please bear in mind that this is voluntary and you are free to accept or reject this request. There is no direct benefit to participation in this study and participants may terminate their participation at any time during the process.

If you agree you to allow your students take part in the study, you will be required to inform your class a week in advance about the study. You also will be given an advertisement to pass in class prior to their participation. A research assistant will visit your class the following week with the surveys to collect data.

Thank you in advance for your valued consideration.

Sincerely,

George Mamboleo  
Principal researcher

APPENDIX I.  
COMPARISON BETWEEN CANADIAN AND KENYA STUDENTS  
SCORE ORGANIZATIONAL POLICIES AND PROCEDURES SCALE OF THE ATEPD MEASURE.

Item	Kenya Sample, (2009) ( <i>N</i> = 309)		Loo Sample, (2002) <i>N</i> = 231)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Item #2, "Disabled employees should not receive any preferential treatment in promotion."	3.19	1.826	4.37	1.47
Item #5, "Organizations need to have human resource policies specifically for the disabled"	5.08	1.339	4.15	1.32
Item #6, "Disabled employees, because they are disabled, should be paid less than able employees"	1.18	0.748	1.34	0.72
Item #7, "In the personnel selection process, organizations should give disabled employees special consideration"	4.45	1.5	2.74	1.35
Item #9, "Organizations should not make special efforts to recruit disabled persons."	2.01	1.426	3.30	1.32
Item#11, "Disabled employees need extra training"	3.89	1.727	3.03	1.38

*Based on (Loo, 2002, 2004), and the present study*

Key.

1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Slightly Agree
5. Agree
6. Strongly Agree

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