

**VOCATIONAL SELF-CONCEPT AND
DECISION-MAKING SELF-EFFICACY OF
LEARNERS WITH VISUAL IMPAIRMENT IN
KENYA**

BY

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MAKING SELF-EFFICACY OF LEARNERS WITH
VISUAL IMPAIRMENT IN KENYA**

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Declaration

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I declare that **“Vocational self-concept and decision making self-efficacy of learners with visual impairment”** is my own work and that all sources that I have quoted have been indicated and acknowledged by means of complete references.

MARGARET W. MURUGAMI.

This thesis is submitted with the approval of my promoter

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In carrying out this study, I am indebted to several people without whom this task would not have been accomplished.

First, I am deeply indebted to my promoter Dr. Normal Nel for her tireless support and wise counsel that sharpened my intellectual instinct with numerous ideas that culminated to this work. I am very grateful to Mrs. Hellene Muller who carefully guided me in statistics to make my data interpretation meaningful.

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Summary

The aim of this research was to explore career information learners with visual impairment acquire from school to enable them develop vocational self-concept and career decision-making self-efficacy. It explored role of guidance and counselling in preparing learners for world of work from primary to university levels of education. The study adopted Career Development and Self-efficacy Theories as bases of exploration. Two standardized tools were used to assess development of these aspects. Pilot study was conducted to validate instruments, testing reliability for applicability with subjects in Kenya. Data was analysed using Statistical Package for Social Sciences for quantitative and Atlas Ti to code qualitative data. The major finding indicated a linear relationship between aspects implying that learners experienced increased development as they progressed in education. Other findings are explained in text. The findings affirmed need for comprehensive career guidance and counselling for learners with disabilities, culminating to suggested vocational development model.

Key Terms: Disability, Impairment, Participation, Special Needs Education, Visual impairment, Vocational Guidance, Vocational Rehabilitation, Vocational self-concept

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DEDICATION

To all who care about the welfare of persons with disabilities, and their total inclusion into mainstream society

The Lord is my shepherd (Psalms 23)

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ACRONYMS

ABC - Africa Braille Centre

AUB - Africa Union of the Blind

CBM - Christoffel Blinden Mission

KISE - Kenya Institute of Special Education

KSB - Kenya Society for the Blind

KUB - Kenya Union of the Blind

MOEST -Ministry of Education Science and Technology

SSI - Sight Savers International

TSC - Teachers Service Commission

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CHAPTER ONE

INTRODUCTION

This chapter gave the background to the problem, the awareness of the problem, statement of the problem and the aim of the study. The researcher expressed the motivation for the research, research questions to be explored, theoretical foundation of the study, limitations, and the operational definitions of significant terms.

1.1 Background to the study

In Kenya, education for learners with visual impairment assumes an adoption and adaptation of the regular curriculum that is designed for all schools. The argument behind this, is embedded in the philosophy of curriculum development for learners with visual impairment, which states that, “All children have the same educational needs and thus, they all should be provided with the same learning experiences, but with some areas of the curriculum being adapted to suit the needs of learners with visual impairment due to their loss of vision” (Kenya Institute of Education, 1997:12). However in Kenya, the work acquisition goal for young school leavers with visual impairments has been a big challenge. It is observable that, in Kenya, there is lack of clear integration among personal, academic guidance and career guidance. Majority of students rarely relate their academic subjects to their future careers and what they would like to be in their adulthood. This creates lack of vocational self-concept and career decision-making skills. Consequently, learners with and without disabilities are often hard-pressed to dependent career decisions by their parents, teachers and mentors. The majority of school leavers with visual impairment have turned to begging in major towns or overstayed in vocational rehabilitation centres, where they live dependent lives rather than gaining independently controlled lives.

The Kenya education sector incorporates guidance and counselling within its curriculum. Career guidance and counselling is an important component aimed at preparing the youth for a meaningful adult life after completion of school at primary and secondary levels. However, there are no comprehensive guidance and counselling services yet in place (Republic of Kenya, 2005b:162). Specifically, career guidance should aid the youth in the development of vocational self-concept and instil in them career decision-making skills that would enable them to engage in a satisfying livelihood. As a matter of fact, the Republic of Kenya, (2005b:162) notes with concern that, although the provision of guidance and counselling has been implemented since 1970s, lack of comprehensive guidance and counselling services has perpetuated the current state of high unemployment rates not only for school leavers with visual impairment, but the entire school leavers' population experience inadequate career opportunities. In addition, whereas, the entire learners population needs critical career guidance and counselling, there is a general feeling that many teachers still lack skills to offer career guidance and counselling in Kenya (Republic of Kenya, 2005b:161). Similar sentiments have been raised concerning vocational education and training during the transition from school to the world of work. The Republic of Kenya, (2005b:58), has also noted that the current curriculum on vocational education and training is inflexible and not responsive enough to the changing needs of the labour market. This affects the entire learner population in Kenya and especially learners with visual impairment.

The demand for both career guidance and counselling as well as vocational education to be more comprehensive for learners with visual impairment in particular, is very critical because of their pressing needs, which include restricted early opportunities in work related experiences, dependence on family and teachers, and experiences of academic failure. These often lead to low self-esteem and limited self-knowledge especially in work-related skills that may generally affect their development of vocational self-concept and career decision-making

self-efficacy. This has been observed specifically by the researcher while teaching learners with visual impairment as a teacher earlier at primary, secondary and now university level of education.

Considering the restrictions cited above, schools and vocational rehabilitation agencies need to have assumed special roles of preparing learners with visual impairment in inclusive environments for their transition from school to the world of work (Estrada-Hernandez, 2004:24). Career guidance and counselling in this context, form the basis for the development of vocational self-concepts and career decision-making self-efficacy in learners with visual impairment. Consequently with adequate vocational self-concept and decision-making self-efficacy, learners with visual impairment are likely to benefit more from vocational education and training, as they may become more relevant and meaningful to them.

Career guidance and counselling therefore, need to be an integral part of any curriculum meant to prepare young people to become productive members of their communities. For learners with visual impairment, it deserves particular prominence because their transition from school to work is often a more complex process. The need of learners with visual impairment to enhance their vocational self-concept is not over emphasized because they need to make career decisions more effectively. Capella, Roessler, and Hermmela, (2002, In, Estrada-Hernandez, 2004:2) examined the self-reported job-related skills awareness of high school learners with disability. The premise of this study was that a correct self-image of a worker will contribute to the person environment match and also facilitate self-actualization in order to impact on employment out comes. The results of this study indicated that there was lack of job-skills awareness among learners with disability. A replication in Kenya, of Capella, Roessler, and Hermmela (2002) study for learners with visual impairment, would likely yield almost similar results.

Neglecting the area of career guidance and counselling for learners with visual impairment would not only be discriminatory but a denial of the right of the persons with visual impairment to be included into society through participation in the labour market. Learners with visual impairment have as much right to access the rewards of the workplace as their peers and career guidance and counselling teachers and other professional mentors need to support that aim (Wright 1997:121).

The publications “Standard Rules on Equalization of Opportunities for Persons with Disabilities” (1993) and the “United Nations Convention on the Rights of Persons with Disabilities” (2006) both of which are ratified in Kenya, also signal a shift towards inclusion. These Standard Rules assert full participation in the basic units of society, family, social groups and community as a right which applies to all people inclusive of those with disabilities (United Nations, 2000). Likewise, The United Nations Convention on the Rights of Persons with Disabilities (2006) asserts that learners with disabilities need to have effective access to general technical and vocational guidance programmes, placement services and vocational and continuing training so as to facilitate effective transition to the world of work in inclusive settings, without discrimination. It states that “Parties shall ensure that persons with disabilities are able to access general and tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, states parties shall ensure that reasonable accommodation is provided to persons with disabilities” (UN Convention on the Rights of Persons with Disabilities, 2006:3). Kenya has already signed and ratified these documents implying that it is bound by their demands and aspirations. The Standard Rules of Equalization of Opportunities may not be fully implemented since the implementation of Persons with Disabilities Act has been quite slow. However, one of the core functions of

the National Council of Persons with Disabilities is to formulate measures of achieving equal opportunities.

The implication of these rules is that learners with visual impairment should enjoy equal rights in education. The Rules hence, advocate mainstreaming these learners and that ‘disability aspects should be included in all relevant policy-making and national planning’ (Baylies, 2002:728). In Kenya, mainstreaming is slowly translating into inclusion and this was an important factor in this research.

Furthermore, persons with disabilities have continually declared that they are no less ‘human’, and no less deserving of freedom and rights than any other individuals (Disabled People International (DIP), 2001, in Baylies, 2002:728). In essence, the recognition that disability is not necessarily an inherent quality of the individual would give us more insight on other hidden factors. These factors would include issues such as education systems’ failure to accommodate the needs created by impairments and other obstructions such as lack of opportunity, lack of access, lack of respect and assurance of dignity as more prone of making impairments disabilities.

Acknowledging the legitimacy of disabilities in terms of rights, inclusiveness and participation would also make positive progress and make a difference in the lives of persons with visual impairment within their communities after formal schooling. Some of these issues can be addressed in carefully planned career guidance and counselling provided for learners with visual impairment in inclusive settings. The researcher’s optimism was to set a pace in improving career guidance and counselling provision for learners with visual impairment, as she was more familiar with this area of work. The researcher then hoped that further research into the provision of career guidance and counselling for learners with other disabilities would follow so that career guidance is enhanced for all

learners with disabilities in Kenya. The improvement of career guidance and counselling for learners with visual impairment would, hopefully, offer them a level playing ground during their transition from school to the world of work and effective inclusion among peers in their community settings. This approach would not only set pace for learners with visual impairment and others with disabilities but also for learners without disabilities in Kenya.

Kenya as a developing country, and as a proponent of inclusive education, needs to recognize human rights especially within the persons with disabilities population in terms of education, career guidance, vocational education and training, employment and total participation in nation building. The claims that recognition of human rights can make a difference even in developing countries have been demonstrated by countries such as Uganda, and South Africa. The efforts and political will of these countries have contributed to the passage of legislation such as Uganda's Universal Primary Education Policy that stipulates that learners with disabilities must be given priority and be granted free education (DFID, 2000:12). In South Africa, the implementation of the country's White Paper on an integrated National Disability Strategy (South Africa, Office of the Deputy President, 1997) has promoted the protection of the rights of persons with disabilities in the constitution (Baylies, 2002:730). These examples set pace for other countries such as Kenya to borrow from their practice for the benefit of learners with disabilities in the education system as well as persons with disabilities within their communities.

1.2 Analysis of the Problem

In the following section, the researcher put the reader into the picture regarding the development of vocational self-concept and decision-making self-efficacy of the learners with visual impairment in Kenya. The prevailing historical influences and the school environment may have had major impact on the development of

vocational self-concept and decision-making self-efficacy and may have posed the problem.

1.2.1 Awareness of the Problem

Over the years, the facilitation of transition from school to the world of work has not been adequate for most Kenyan learners, but it has been lacking almost totally for learners with visual impairment. Despite the fact that, learners with visual impairment were the first persons with disabilities to receive education in Kenya, primary education has been the terminal stage for the majority. They have over the time relied heavily on five Vocational Rehabilitation Centres (VRCs) for persons with visual impairments, for their vocational needs (Songe, 2004: 6). These centres are Machakos Vocational Training Centre, Sikri Agricultural Centre, Industrial Rehabilitation Centre Thika and Kapenguria Sheltered Workshops. These VRCs are segregated settings for persons with visual impairment. In spite of the good intentions they might have had, over the time, they have perpetuated vocational stereotypes. These stereotypes have the capacity to impede a broad outlook of career options, consequently adversely affecting adequate development of vocational self-concept and decision-making self-efficacy.

Vocational Rehabilitation Centres, however, have been viewed as important outlets for vocational education and training for all learners with disabilities, not only for learners with visual impairment. Learners with disabilities are ideally within Special Needs Education. However, these VRCs have facilitated segregation rather than inclusion into the community since most often they are disability type specific. This implies that the practice in Kenya is training learners with particular disabilities, for example learners with visual impairment separately in sheltered workshops. After training, the trainees are retained for some time, so that they can engage in production of items, which are often sold through highly

organized marketing strategies. All these are done to sustain the programmes as well as generate funds to integrate those trainees who are assessed as being capable for integration.

Integration is one of the primary goals of vocational rehabilitation whose aim is not only to help a person with disability gain remunerative employment, but also assure the individual a rightful place in the home and the community. However, the gist of the problem is that vocational rehabilitation for persons with visual impairment in Kenya, has failed to put the rehabilitees into their rightful place in the community in remunerative and satisfying employment (Songe 2004:22). Furthermore, Oliver (1990, in, Songe:9) cautions that, since vocational rehabilitation centres for learners with visual impairment are segregated settings, they seem to be part of the oppressive social apparatus through which persons with visual impairment are excluded from social participation.

Apart from the exclusion practices of, for instance, the rehabilitation centres, schools also have the opportunity of embracing inclusive education as the appropriate environment within which learners with visual impairment can be nurtured to develop their vocational self-concept and career decision-making self-efficacy. Some of the efforts that are needed to take advantage of these suggestions are putting career guidance and counselling in its rightful place early in school years. This is in line with the long-term goal of inclusive education world-wide, which is, to enable learners with disabilities, as adults to live, work and play along with their peers in their home communities thus achieving inclusive living.

Inclusive education, in this context of learners with visual impairment, implies instilling long-term behaviours and ways of thinking right from inclusive schooling to inclusive living. It aims at helping learners with visual impairment

learn how to fully participate in their vocational development and decision-making in preparation of their roles in their communities. Without the development of vocational self-concept and decision-making self-efficacy, this noble goal may never be achieved and consequently, learners with visual impairment will continue to relegate on the realms of dependent decisions in their vocational choices.

Conceptually, inclusive education first emerged as the goal of equal access to mainstream education for students with disabilities. Mainstreaming has been embodied in legislation in the USA (Public Law 94-142/99-457/101-476) since 1975 and the UK's Education Act since 1981. While Kenya does not have specific legislation that mandates educational integration, our national education policies do exhort social justice, quality education and equity for all students in Kenyan schools. The Salamanca Statement and Framework for Action (UNESCO, 1994, Art. 2) asserts that: "Regular schools with inclusive orientation are the most effective means of combating discrimination, creating welcoming communities, building an inclusive society and achieving education for all." The philosophy of inclusive education in essence, indicates a more thorough commitment to comprehensive education capable of facilitating transition at different levels and ultimately to the world of work for learners with visual impairment in inclusive education settings. It implies educators and community members need to work together, defining their purpose and goals to address the needs of all learners.

The researcher had also realised that, learners with visual impairment need to relate their academic subjects with future occupations so that they can set their achievement goals toward their occupational aspirations. In her interaction with learners with visual impairment, the researcher had encountered learners who felt completely out of touch with vocational courses they were undertaking, yet they

yearned for courses they do not qualify for. Probably, if these learners would have been guided earlier to relate subjects to careers, they would not be in the dilemma they often found themselves in. These learners, also needed opportunities for self-exploration in work-related experiences while still in school so that their transition from school to the world of work could be facilitated. The need for career guidance and counselling that would facilitate development of vocational self-concept and decision-making skills is not an overstatement.

1.2.2 Investigation of the Problem

The researcher, being aware of the problem, had realised the extent and importance of development of vocational self-concept and decision-making self-efficacy of learners with visual impairment in Kenya. An in-depth investigation of the problem could suggest change towards appropriate career guidance and counselling for learners with visual impairment.

The function of career guidance in broad context as described by Wright (1997:125), convey career guidance as ‘a means of helping individuals to apply relevant knowledge, understanding and skills to their own particular circumstances when choices have to be made’. Career counselling on the other hand was defined as ‘a means of helping clients explore their own thoughts and feelings about their present situation, about options open to them, and about the consequences of each option’. The clients were then given chances to make informed decisions. The aim of career guidance and counselling, therefore, is to help individuals make objective career choices and transitions towards vocational success. The knowledge and skills provided during career guidance and counselling are expected to instil in the individuals a range of competencies including abilities to; assess their own personal qualities, skills, needs, interests, attitudes and values and seek and sort information about opportunities in education, training and work; match personal information with information about

opportunities, and show ability to select and use an appropriate decision-making strategy to choose between opportunities; use an action-planning process to achieve their goals; use self-presentation skills in a selection process and cope with transition from one work environment to another.

This perspective suggests the importance of incorporating the self to the future work roles and making decisions that will be satisfying to the individuals in order for them to be productive members of their communities. Hence, career guidance and counselling as a service to all learners (including learners with visual impairment) is the responsibility of schools and colleges and collaboration between teachers and career counsellors would yield enhanced success. This service should not be treated as an additional subject rather it should be identified as one of cross-curricular themes. Career guidance and counselling, thus should be taught through the subjects of National Curriculum and be promoted through the wider aspects of life such as community occupations. This is in line with the Kenyan Curriculum and if implemented would enhance the aspirations of quality education as envisioned by the current curriculum whose philosophy is 'Total Integrated Quality Education' (Republic of Kenya 2005b, Kenya Education Sector Programme 2005-2010 geared towards delivering quality education and training to all Kenyans).

Based on the above perspective, Wright (1997:130), however, suggests that special considerations should be taken into account when preparing learners with visual impairment for the world of work. The reason behind special considerations lies on the fact that disabling conditions such as visual impairments impede vocational development (Mengistu, 1994:34). Vocational development for such individuals is particularly difficult due to reduced orientation and mobility, sensory or mental impairment, prolonged medical treatment and functional limitations associated with such disability. Without

vision or with impaired vision, it is difficult to learn incidentally about work roles, the types of jobs available, what tasks are inherent in different jobs or what work behaviours are expected of employees (Wolffe, 1999:13). Moreover, Tuttle (1999) rightly argues that:

Many learners with visual impairment reach their teen years naïve about the world of work. Through no fault of their own, numerous youngsters who are academically trained have little or no work experience and thus little practical understanding of the labour market, jobs and how one progress through jobs to capture one's career goals (Tuttle, 1999, cited in Wolffe, 1999: xiv).

The implications of the above sentiments are; career guidance and counselling should steer the combination of information, practical application and reflection in a natural environment to help learners with visual impairment develop the attitudes, knowledge and skills that are necessary for them to prepare themselves for their future careers (Wagner, 2004:707). Wagner emphasizes the main goal as being, to enable learners with visual impairment to explore and become knowledgeable about opportunities for employment and to feel confident about entering the labour market. Career guidance and counselling within inclusive settings for learners with visual impairment is likely to facilitate this vital and crucial goal.

Research evidence (Wright, 1997, Mengtsu, 1994) also indicates that restricted early experiences, social immaturity, social attitudes toward disability, labels for instance "Visually Impaired" and unrealistic aspirations or lower aspirations learners with visual impairment experience, could also affect their self-acceptance and hinder adequate development of vocational self-concept. Self-acceptance as a learner with visual impairment with usable vocational potentials develops with the recognition of reality and with increasing clarity of, and skill in meeting that reality. Career guidance and counselling has the capacity to free learners from these attitudes and facilitate development of self-acceptance, positive self-concept and independent decision-making skills.

Research evidence has also suggested that developmental opportunities through educational experiences can also enhance vocational development. Learners with visual impairment in their self-evaluations in integrated settings indicated their capabilities in coping with challenges, performing well socially and academically in relation to their sighted peers (Roy, 2002:265). Likewise, Noonan, (2004:73) cites high achievers women with visual impairment who stressed that attending mainstream education had salient influences on their vocational aspirations as something noteworthy. This may indicate that learners with visual impairment, in inclusive settings, have better chances of more incidental learning as they interact with peers without disabilities. This is suggestive of the importance of inclusive education in preference to segregation in special education institutions.

Segregation practices, such as vocational rehabilitation centres, have not facilitated comprehensive career guidance and counselling in Kenya, since the concepts of most programmes have been focused on fitting persons with disabilities into jobs at skilled and unskilled levels (Wamocho, 2003:35). Specifically, opportunities for direct experience of the world of work through part-time jobs or work experience are not only very rare, but almost non-existent for learners with visual impairment. This implies that self-presentation skills may have remained underdeveloped in the majority of the learners with visual impairment. In the current highly competitive employment selection processes, employers may not even tolerate some patterns of behaviours often tolerated within the segregated settings where many learners with visual impairment receive their education and rehabilitation. Such behaviours may include dependence, poor interpersonal skills and inadequate functional skills which may not be tolerated in inclusive settings yet they would be tolerated in segregated settings. Therefore, these learners will require comprehensive career guidance and counselling that will enhance the development of their vocational self-concept and

decision-making self-efficacy, if they have to be ready for inclusion in the world of work within their communities.

Furthermore, the Kenya government has embarked on a five-year support program (Kenya Education Sector Support Programme (KESSP) 2005-2010) with an aim of delivering quality education and training to all Kenyans. Some of the challenges the government is addressing in this support programme are:

- Developing and implementing career guidance and counselling training programmes, for teachers, learners and other stakeholders.
- Development and dissemination of career information booklets and other materials related to career development.
- Monitoring and evaluation of career guidance and counselling programmes (Republic of Kenya 2005b:162).

These efforts offer opportune time to address and enhance areas of difficulties among learners with visual impairment in career guidance and counselling, one being, their development of vocational self-concept and decision-making self-efficacy skills. The Republic of Kenya (2005a:38) laments that access to equitable and quality education for learners with disabilities in inclusive schools still lacks implementation guidelines, and reliable data on students with disabilities. Considering the above arguments and assumptions, it was logical to establish research based data on the status of learners' with visual impairment vocational development and career decision-making self-efficacy with an aim of incorporating appropriate strategies in career guidance and counselling.

1.3 Statement of the Problem

Minimal research has been conducted in Kenya to address issues in overall career guidance and counselling to the general learners' population in the fast changing world of work we are experiencing today. The situation is even worse for learners with disability, who include learners with visual impairment. The brief instances

that career guidance and counselling has been mentioned, even for the general learners' population, have been as a component of general guidance and counselling such as in Mutie and Ndambuki (1999). Other times the mention of career guidance and counselling has been facilitated by general national surveys on either personal social issues that require guidance and counselling (Republic of Kenya, 1991; 1999) or in the general review of education provision problems present in the on-going curricula (Republic of Kenya, 2005a; 2005b). Most local research projects target learners without disabilities often addressing guidance and counselling generally without in-depth concentration in the specific aspects of learners with disability. These research projects rarely focus on learners with visual impairment and therefore, no research has so far been conducted to address career guidance and counselling provision for learners with visual impairment.

Learners with visual impairment, due to the limitations imposed by their impairment and education environment, may have difficulties in developing their vocational self-concept as well as career decision-making self-efficacy. Hence, failure to address career guidance and counselling provision for these learners would perpetuate these difficulties thus resulting to ill-preparedness of learners with visual impairment for the world of work. Furthermore, the failure in learners with visual impairment to establish what they would like to be and what they are capable of being in the world of work can continue to propel these learners to dependent decision-making into the very vocational stereotypes that have segregated them from their communities. Such practices are against human rights as well as being anti-inclusion, yet rights and inclusion are the themes of the contemporary world.

1.4 The Main Objectives of the Study

The main objectives of the study was first, to use the literature review of this study to provide insight into a more enhanced preparation of learners with visual impairment for the world of work in Kenya. This was facilitated through

highlighting current practices being tried elsewhere as bases for review and possible borrowing from them, what can be useful for learners with visual impairment in Kenya. This was timely during this era of inclusion where poor preparation posed a barrier to inclusion of persons with visual impairments into equitable participation in the labour market.

Secondly, to uncover critical data that can provide an enhanced component of career guidance and counselling to be included in the Comprehensive Guidance and Counselling Program for Persons with Disabilities in Kenya proposed by Wamocho, (2003).

1.4.1 Hypotheses and Expectations

This study intended to test the following null hypotheses:

1. There is no significant linear relationship between vocational self-concept and decision-making self-efficacy.
2. There is no significant difference between vocational self-concept of learners in school and those in college.
3. There is no significant difference between vocational self-concept of learners in school and those in rehabilitation centre
4. There is no significant relationship between vocational self-concept and age.
5. There is no significant relationship between decision-making self-efficacy and the severity of the visual impairment.
6. There is no significance difference in self-efficacy in relation to gender.

1.5 Research Questions

The main research question for this study was:

Is career guidance and counselling in Kenyan schools today able to facilitate the development of vocational self-concept and career decision-making self-efficacy skills among learners with visual impairment?

In the exploration of whether learners with visual impairment have adequate vocational self-concept and career decision-making self-efficacy, as they prepare for transition from school to work, the following sub themes emerged, which would allow the researcher to unpack the research question:

1. What is the level of self-knowledge in terms of interests, abilities, values and limitations among learners with visual impairment in their preparation for their future careers?
2. How do learners with visual impairment appraise themselves for their anticipated future selves?
3. Can learners with visual impairment make appropriate decisions regarding their future careers?
4. What kind of occupational information do learners with visual impairment have as they prepare for their future careers?
5. How do learners with visual impairment choose their subjects to enable them to plan for their career goals in preparation for the world of work at primary, secondary, vocational training and university levels of education?

1.6 Aim and Motivation of the Research

Based on the problem stated, the aim of this research was to explore and understand how learners with visual impairment achieve their vocational self-concept and decision-making skills. It also aimed at understanding how career guidance and counselling facilitated the development of vocational self-concept and acquisition of decision-making skills for learners with visual impairment within the school environment. This understanding would help the researcher to explore the extent to which the knowledge gained, facilitated or hampered the development of vocational self-concept and consequently career decision-making self-efficacy among learners with visual impairment.

The researcher was also motivated by the fact that, career development and decision-making self-efficacy for learners with disabilities was a current debate in research world-wide, such as in the United States, Britain and Australia. Hence, Pierangelo and Giuliani (2004:8) had posited that one of the most significant concepts to emerge in the recent decades is the awareness of self-determination in the life of an individual with disability. They argued that, for too long, professionals have made decisions for persons with disabilities with little input from the persons with disabilities themselves or their parents.

As much as these decisions may have been motivated by good intentions, they may have overlooked the desires, hopes and aspirations that remained hidden within individuals with disabilities. With the current call of inclusion, persons with disabilities are calling the attention of society to heed to their voices. Webson (1997:20), **who** is visually impaired, asserts that “Despite decades of programs development by many well-intentioned organizations and significant financial investments, the majority of persons with visual impairment in the world today receive no services at all. Hence, Webson (1997:20) asserts that in such circumstances, persons with visual impairment will never have an opportunity to

fully participate in their communities.” Whereas the statements may appear too absolute to be true, they still raise the concern that demands review of our approaches while giving services to learners with visual impairment. Learners with visual impairment in Kenya need similar interventions, if they are expected to cope with current challenges in the fast moving world of work.

1.7 Theoretical Foundation

This study adopted Career Development and Decision-making self-efficacy theories as the bases of its exploration. Super’s (1994) Life-span Theory of career development was selected for this study because it was the most comprehensive developmental theory applied to careers (Estrada-Hernandez, 2004:33). The theory combined elements of developmental, personal, social, learning and phenomenological psychology with self-concept and trait and factor considerations (Estrada-Hernandez, 2004; Szymanski & Hersherson, 1998, in, Estrada-Hernandez, 2004:33). Essential assumptions of Super’s Theory are based on the individual characteristics of people and the world in which these people live. Super conceptualizes vocational development as the process of developing and implementing a self-concept (Estrada-Hernandez, 2004; Sharf, 2002a; Super, Savickas & Super, 1996, Super, 1994, IN, Estrada-Hernandez, 2004:34).

In addition, Betz and Taylor’s (1987) Theory addresses decision-making self-efficacy as an important aspect of counteracting career indecisions among young persons in their transition to post school activities such as higher education, employment and community integration. The emergent Career Decision-Making Self-efficacy Scale (CDMSES) made an important contribution towards understanding aspects that are amenable to career guidance and counselling. Hackett (1991: 330) notes how past research had had major limitations on how to apply career self-efficacy to career counselling due to lack of a general measure useful under a variety of circumstances. Hence, he affirms that the Career

Decision-Making Self-Efficacy Scale (CDMSES) along with adjustment to disability and severity disability questionnaires are useful assessment tools to increase awareness and discussion between career counsellor and clients.

1.7.1 Conceptual Framework

The researcher embraced an ecological model theory framework by Szymanski, Enright, Hershenson & Ettinger, (2001). This framework was proposed to aid school career guidance and counselling as well as rehabilitation counsellors working with persons with disability to identify a range of individual, social and environmental influences on vocational decision-making and behaviour. The conceptual framework is eclectic in nature, adopts both developmental and self-efficacy theories that form the basis of this research. The conceptual framework tried to interrogate pertinent themes in the main question of this study.

1.7.2 Research Design and Methodology

This was an ex post facto research design that used a mixed method approach to examine the relationship between vocational self-concept and decision-making self-efficacy among learners with visual impairment in their natural settings. An ex-post- facto research is defined as ‘systematic, empirical inquiry in which the researcher does not have direct control of the independent variables because their manifestations have already occurred. This design allows the researcher to express the degree of relationships among variables. The design was expected not only to permit the researcher to study the direction of the relationship of the variables of the study but also its strength (Orodho, 2004:51). The research had an action-oriented agenda that could change the life of the participants and the institutions they learn in. Thus the mixed method approach was geared towards advocacy/participatory worldview approach.

1.7.3 Ethical Issues

The researcher considered various ethical issues as guiding factors in order for her to conduct a sound research. These included avoiding putting participants at risk. This research valued the constant review by the research promoters and the University Board that would guard against any violation of human rights of all participants. The researcher sought permission from the Ministry of Education Authority to conduct the research. The purpose of the research was explained explicitly to the participants so that they could understand the nature of the study and its likely impact on them. Participants had a right to voluntary participation and a right to withdraw at any time to avoid coercion into participation. The researcher observed confidentiality of the information given and protection of the participants' anonymity. Finally, there was need to maintain accurate account of information during data interpretation so as not to falsify or invent findings to meet the researcher's or audience's needs.

1.7.4 Demarcation of the Research

This study was limited to one category of disability – visual impairment. This implied that its applicability to learners with other categories of disabilities such as intellectual challenges or hearing impairment would be limited. The focus of this study was on learners with visual impairment in primary schools, secondary schools, a rehabilitation centre and Kenyatta University in Nairobi and Central provinces of Kenya. These environments ranged from segregated residential schools to integrated and inclusive settings for instance Kenyatta University. Among the very few learners with disabilities who access higher education, the majority are learners with visual impairment. They have been able to progress through education to tertiary and higher levels into university. They have also shown desire to venture into occupations that were earlier thought inaccessible for them. The learners that focused in this study, if well nurtured at school level are great assets to our society.

1.8 Definition and Clarification of Concepts

The definitions and clarification of concepts below intended to guide the reader on how the concepts were used in operational terms. First and foremost, the guidelines for language use with persons with disabilities in Kenya are clearly stipulated in the Handbook for terms and concepts in use in Special Needs Education. These guidelines were spearheaded by the Ministry of Education in collaboration with universities offering Special Needs Education and Kenya Institute of Special Education. One of the guideline is ‘person first’ principle while addressing persons with disabilities, with the ‘the condition’ coming later after addressing the human person, such as ‘A person with visual impairment’ instead of ‘a visually impaired person’. (KISE, 2006:2). Other terms are defined using the inclusion strategies as follows:

Disability has been defined differently by various disciplines such as medical and social models. For the purpose of embracing inclusion, the term disability in this research is defined as “the loss or limitation opportunities to take part in the normal life of the community on an equal level with others due to physical and social barriers” (Oliver, 1996a)

Impairment – It is a limitation of physical, sensory or intellectual function which interferes with a person’s execution of tasks in ways that society considers to be “normal”.

Participation is the shared engagement in learning and social activities with others in such a way as to foster a sense of belonging to the group.

Special Needs Education – This is education, which provides appropriate modifications in curricula, teaching methods, educational resources, medium of

communication and/or the learning environment in order to cater for individual differences in learning.

Visual impairment – This is loss of vision which even after correction adversely affects a learner’s educational performance or execution of typical everyday tasks.

Vocational Guidance - This is the process of helping learners to choose an occupation, prepare for it, pursue it and progress in it. The process should be life-long and aim at helping learners make specific choices as well as good overall decisions.

Vocational Rehabilitation – This is a programme designed to help young adults with disabilities to learn, obtain and hold a job.

Vocational self-concept – Based on Super’s Career Development Theory, vocational self-concept is an on-going process, that occurs over the lifespan and includes home, school and community related work values and experiences. The integration of these experiences into the individual’s self-concept is implemented in a lifestyle as one live and makes a living and culminates into a vocational self-concept. The researcher embraces this description as her operational definition

1.9 Program of Study

Chapter 1

This chapter comprised the explanation of the problem that was formulated in a clear statement. The researcher explicitly explained the aims of the study, defined concepts in use and introduced the theoretical framework. The research design was likewise indicated to enable the reader to know what to expect from the study.

Chapter 2 and 3

These chapters focused on literature review and research methodology. Chapter 2 dealt with career guidance, specifically for vocational development and formulation of a self-concept. Career decision-making self-efficacy was highlighted as a concern in current research on career counselling especially in the fast changing world. International trends on vocational preparation for students with disabilities were reviewed. Chapter 3 looked into problems and issues concerning career guidance for learners with visual impairment in Kenya. Finally, it explained major support services that have shown concern on transitional services for learners with visual impairment.

Chapter 4

This chapter described the research design and methodology, the instruments used in the study, and the procedures for data collection. All this was presented in a manner that indicated a clear link between the data and the topic of the study.

Chapter 5

This chapter comprised the report where data analysis and interpretation were presented.

Chapter 6

The chapter concluded the research findings, giving a summary of major findings and discussions on whether the findings accepted or rejected the hypotheses of the study. The researcher, using the findings, suggested an outline of career guidance for possible incorporation into the comprehensive guidance and counselling Programme that has been proposed for learners with disabilities in Kenya. The researcher finally gave recommendations on the basis of the findings.

CHAPTER TWO: LITERATURE REVIEW

DEVELOPMENT OF VOCATIONAL SELF-CONCEPT AND DECISION-MAKING SELF-EFFICACY

2.1 Introduction

This chapter presented literature review pertinent to understanding the development of vocational self-concept and decision-making self-efficacy. These concepts represent desirable outcomes that can be achieved through a comprehensive career guidance and counselling process, if it is well-integrated into the entire schooling process for learners with visual impairment. To explain what is meant by the term comprehensive career guidance and counselling, Super's (1994) Lifespan Theory and Taylor and Betz's (1987) Self-efficacy Theory were used to explore development of vocational self-concept and career decision-making self-efficacy in learners with visual impairment while still at school. The chapter discussed generally the motivation for the selection of these two theories and on how the theories apply to learners with disability specifically focusing on learners with visual impairment. It briefly mentioned international societal attitudes toward visual impairment, and then reported on the social status accorded persons with visual impairment in Kenya. It also explored current efforts the Kenyan government is engaging in to ensure that career guidance and counselling is enhanced for all learners and tied these efforts to enhancing the development of vocational self-concept and decision-making self-efficacy of learners with visual impairment in Kenya, viewing them as part and parcel of the targeted clients by the Kenyan government.

2.1.1 Link Between Career Guidance for Learners Without Disabilities and Learners with Visual Impairment

Several theories have explored how persons generally attain their vocational self-concept enabling them to settle for careers with satisfaction and productivity. Among such theories include Super 1994 that proposes a developmental model of

career guidance and Holland's (1985) typology, that emphasizes types of environments persons prefer to work in. Other theorists focus on social learning such as Lent, Brown, & Hackett, (1996). These theories most often target persons without disability and their major theme is on how well persons can be guided to plan for future careers and make satisfactory decisions.

Mengitsu (1994:40) in his research with learners with visual impairment in Ethiopia noted the lack of research on career development of learners with disability. He stated that due to this lack of reliable data, there has been no empirically guided development of career guidance and counselling approaches specifically for learners with visual impairment (Mengistu 1994:41). He also embraced a theoretical point of view that, persons with visual impairment do not need differential theories. They need to compete with their sighted peers and the same instruments used with the non-disabled counterparts should be employed so that their needs can be identified for effective career guidance and counselling.

The importance of increasing participation of learners with visual impairment in mainstream education and consequently their participation in the labour force surpasses the traditional systems of vocational education that uses primary disability as a major determinant of assigning persons with visual impairment to predetermined occupations. Furthermore, career theories and their associated instruments have been successfully used for learners with visual impairment, assuming that there is no clear dichotomy between types of guidance and counselling approaches that are relevant for persons with and without disability. A general consensus within the current era of inclusion strongly disputes the focus on differences rather than similarities when used to isolate persons with visual impairment from the society.

This study assumed that learners with visual impairment view career guidance and counselling as important as their non-disabled peers. However, they may be less satisfied with the opportunities they are provided with to enable them to access adequate preparation for their future careers. Consequently, the majority of learners with visual impairment do not successfully complete secondary school and often fail to access further education to enable them to compete in a wider variety of careers.

Facilitation of this access to a wider variety of career choices required a theoretical approach that would effectively enhance guidance and counselling. Super's (1994) Theory if used with learners with visual impairment would greatly facilitate adequate preparation for their future careers. The reason why this theory was chosen was because it follows a developmental sequence that would enhance guidance and counselling as a process as opposed to provision of a short-term guidance and counselling programme.

Although Super's original propositions have been widely revised since their inception in 1957 (Estrada-Hernandez, 2004:34; Savickas, 2002), the essence of the Theory have remained constant. Furthermore, many of these propositions have been rigorously tested and rewritten (Estrada-Hernandez, 2004:34). These propositions are:

1. People differ in their abilities and personalities, needs, values, interests, traits and self-concepts.
2. People are qualified by virtue of these characteristics, for a number of occupations.
3. Each occupation requires a characteristic pattern of ability and personality traits with tolerance to allow a variety of individuals in each occupation and a variety of occupations for each individual.

4. Vocational preferences and competencies, the situation in which people live and work, and their self-concepts change with time and experience.
5. The process of change is represented by a series of life stages, each with the respective developmental tasks.
6. The nature of a career pattern of an individual is determined by parental socio-economic level, mental ability, education, skills personality characteristics and by the career opportunities to which the individual is exposed.
7. The success of an individual in coping with career demands will depend on how ready the individual is to deal with these demands. This concept is known as career maturity.
8. Career maturity is a hypothetical construct, difficult to operationalize and is not a unitary trait.
9. Development through life stages can be guided partly by facilitating the maturity of interests and abilities and by the development of self-concepts.
10. The process of career development is that of development and implementing occupational self-concepts.
11. The process of compromise between individual and social factors, between self-concepts and reality is one of role playing and learning from feedback.
12. Work and life satisfaction depend on the ability of the person to find adequate outlets to manifest interest, abilities, skills, values, personality traits and self-concepts.
13. The degree of satisfaction people derive from work is proportional to the degree to which they were able to implement their self-concepts.
14. Work provides a focus for personality organization.

A major theme, thus, in this career development theory and research is the postulate that vocational self-concept is a major determinant of peoples' career planning and decision-making. This postulate can be applied in career guidance and counselling for learners with visual impairment. This further implies that vocational self-concept is an important determinant of the clarity and wisdom of career decision-making. Learners with visual impairment can be provided with exploratory activities that prepare them for setting goals as they get ready to make their own independent choices. The achievement of adequate vocational self-concept and decision-making skills can be facilitated by a career guidance and counselling process where one is helped to develop and accept an integrated and adequate picture of himself or herself, his or her role in the world of work, and to test this concept against reality, and then convert it into reality with satisfaction to oneself.

In addition, Taylor and Betz's (1987) Theory contributed greatly to the importance of acquisition of adequate decision-making skills to enable learners with visual impairment in their adult life to achieve vocational decision-making skills that would be productive and satisfying to their global self-concept. This theory has culminated in the development of Career Decision-Making Self-Efficacy Scale (CDMSES) that assesses an individual's expected ability to make decisions relating to career activities.

The concept of self-efficacy expectations is derived from Bandura (1997), who describes self-efficacy as the judgment of how well one can execute courses of action required to deal with prospective situations. He postulates that self-efficacy is not a passive trait, but a dynamic aspect of self-systems that interact with the environment and the individual.

ElHessen (2002:5) also, after using the Career Decision- Making Self-Efficacy Scale (CDMSE) with learners with physical disabilities describes the tool as a significant predictor of career exploration behaviours. She further asserted that the scale might be described as a new paradigm to career counselling for self-efficacy and career choice among students with physical disabilities in secondary and postsecondary education. Career Decision Making Self-efficacy Scale (CDMSES) along with adjustment to disability and severity disability questionnaires have been found to be useful assessment tools that can increase awareness and discussion between career counsellors and their clients. The importance of becoming aware of the relationship between career decision-making self-efficacy expectations and career indecision cannot be overstressed as being starting points for assisting undecided learners. Career counsellors can use these tools to help them determine whether learners with a visual impairment are underestimating or overestimating their abilities with respect to their desired career goals.

2.2 A Theoretical Framework of Career Guidance for Learners with Visual Impairment

2.2.1 Introduction

Several attempts have been made to create a process approach to career development in order to effectively address the career issues of persons with disabilities. However, after careful review of existing resources, Beveridge, Craddock, Leisener, Stapleton and Hershenson (2002:195) conclude that there is no need for a separate theory for persons with disabilities from what is used for non-disabled peers as earlier mentioned. This argument is derived from the great diversity that prevails amongst persons with disabilities defeating the possibility of formulating a single theory that can effectively address career development issues of persons with disabilities. These researchers stress that, it is easier to adapt general career guidance theories to address issues that take first and foremost the human aspect of the persons with disabilities into consideration, and later consider the impact of disability. This realization has facilitated the

application of existing theories of career development to persons with disabilities. This study, thus reviews existing theories and gleans from them information which is applicable to learners with visual impairment.

While several of the major career theorists have acknowledged disability issues (e.g. Mitchell & Krumboltz, 1996; Lent, Brown & Hackett, 1996), Super (1994) appears to be the only one who has considered career needs of individuals with disabilities in detail. For example, being a developmental theory, it is sequential and has stages toward career maturity. Super's stages for each transition are more flexible and some individuals could recycle through more than one stage. Hence, Super's career development theory seems to have been embraced by several researchers addressing interventions for learners with disabilities (Beveridge, et al. 2002; Szymanski, & Vancollins, 2003; Szymanski, & Hershenson, 1998; Hershenson, 1996a, 1996b).

Furthermore, Super's developmental approach to career guidance also reveals the interaction between information about self, the world of work, cultural supports and barriers as well as the messages obtained from the environment, resulting in the development of career decision-making self-efficacy (Bandura, 1997; Taylor & Betz, 1987). So, information that is congruent with developing decision-making self-efficacy of individuals is eventually accepted and incorporated in their career self-image to culminate in a vocational self-concept (Beveridge, et al., 2002:196).

2.2.2 Application of Super's Theory to the Development of Vocational Self-Concept of Learners with Visual Impairment

Lifespan Theory of career development by Super (1994) was adopted as a basis of this study for the purpose of emphasizing the role of the school system in shaping vocational interests, aptitudes and abilities of learners with visual impairment during school years in order to facilitate the development of vocational self-concept.

Shahnasarian (2003:276) also cites Super (1957) as providing the initial definition of career development. Super defined career as a lifelong process of developing and implementing a self-concept, testing one's self-concept against reality and then converting it into reality with satisfaction to oneself and to the benefit of society. Beveridge, et al., (2002:196) likewise credited him for including a chapter in his 1957 book on "Disabilities in Vocational Development". The development of vocational self-concept is a desirable outcome for both learners with and without disabilities that involves patterns of an individual's work-related behaviours, experiences and activities before and after entry into a formal occupation (Beveridge et al., 2002:196).

Nevertheless, Shahnasarian (2003:276) argues that the self-concept and reality challenges that sometimes confront learners with disabilities can have broad implications in the development of vocational self-concept that might lead to experiences of underachievement and inadequate fulfilment. This argument also raises other concerns about persons with disabilities lack of self-actualization. This lack may lead to low self-esteem, poor self-image and negative self-concept. Furthermore, Clark and Kolstoe (1990:34-5) in support of the career development theory, have presented several assumptions based on Super's career development model to support a comprehensive career guidance and counselling process, as

well as transition education for learners with disabilities. These assumptions include:

1. Career development is needed for all persons...young and old, with and without disabilities, male and female, poor and affluent, all races and ethnic groups.
2. One's career is one's progress, or transition, through life as a family member, citizen and worker. A career is a developmental process and is subject to planning, programming, choices and changes.
3. Life-career development and transition planning and training should start early and continue throughout adulthood. Early training is equally as critical for individuals with disabilities as for their non-disabled counterparts. Hence, all learners need early intervention.
4. Significant neglect or adversity in any aspect of human growth can affect one's career development.
5. Society imposes limits upon the life-career development and transitions of persons with disabilities hence restricting their independence yet the current inclusion trend advocates for counteraction of such limits.

The above assumptions stress the importance of a well-integrated career guidance process that can enhance development of adequate vocational self- concept of all learners during their school years. This study strives to assess circumstances that can facilitate this process for learners with visual impairment so that assumptions one, two and three can be a reality to them while counteracting assumptions four and five.

2.2.3 The Incorporation of Betz's and Taylor Theory (1987)

The application of a career development model for career guidance and counselling as mentioned earlier reveals factors that interact with information about self, world of work and culture. These, then give messages that can either facilitate or hinder the development of career decision-making self-efficacy.

Therefore, inclusion of Betz's and Taylor (1987) Theory in assessment of decision-making self-efficacy of learners with visual impairment was expected to make an important contribution towards understanding indecision aspects that are amenable to guidance and counselling intervention. This is consistent with Hackett's (1991:330) earlier concern on how past research had major limitations on how to apply career self-efficacy to career counselling due to lack of general measures useful under a variety of circumstances. The development of Career Decision-making Self-Efficacy Scale (CDMSES) has been suggested as providing a useful measure of learners' indecision and the scale has been successfully used with learners with disabilities and actually recommended for them (ElHessen, 2001).

Career Decision-Making Self-Efficacy Scale (CDMSES) administered to learners with visual impairment was expected to facilitate CDMSE-enhancing interventions such as career exploration and planning exercises. These exercises would include activities such as completion of an interest inventory and/or mock interviews. The ability to perform life skills as independently as possible enhances self-esteem and feelings of self-worth which are central in the psychosocial development of learners with visual impairment. Since career guidance plays an integral role in preparation for entry into the workforce, development of specific work as well as decision-making skills are key components in the career preparation process. The goal, therefore, was to enable learners with visual impairment to explore and become knowledgeable about themselves, opportunities for employment and to feel confident about entering the labour market (Wagner, 2004). For many years professionals have made decisions based on their expertise on behalf of individuals with disabilities, but the current world-wide outcry is to help learners with disabilities learn how to make choices and decisions with professionals now learning how to support the learners (Thoma, Baker & Sadler, 2002:82)).

2.3 The Role of School in the Development of Vocational Self-Concept and Decision-Making Self-Efficacy

The school is in a position to facilitate the development of vocational self-concept of all learners and ensure an orientation towards career decision-making self-efficacy that would emanate from objective self-appraisals. These, in turn, are likely to enable all learners to make the fullest possible use of their individual talents. The challenge the school currently faces is how it can provide comprehensive, relevant, quality and challenging, as well as contemporary experiences for all learners including those with disabilities that can facilitate these outcomes. There is a need for change from previous practices in which career guidance and counselling and vocational training received minimal attention, while academic and social skills building received most of the assessment attention. Many young persons, with and without disabilities leave secondary education with very little knowledge of vocational self-concept and career decision-making self-efficacy. Specifically, young persons with visual impairment lack positive work attitudes that are important for successful transition from school to work or post secondary education (Fore & Riser, 2005:129). These past failures have left many high school graduates with visual impairment working in environments not suited to their abilities.

The school has the capacity to facilitate development of three areas in the process of preparing all learners for transition from high school to work. These areas are (a) functional career decision-making; (b) person-centred planning within the construct of career guidance and counselling; and (c) transitional programming. Facilitation of these areas may lay a firm foundation on which vocational self-concept and decision-making self-efficacy can be realised. Specifically, career decision-making self-efficacy is vital process helping learners with a visual impairment make appropriate decisions for themselves in their daily lives and plan for their futures after high school (Fore & Riser, 2005:130).

Along the same line of thought, Thoma, et al., (2002:82) emphasize that the transition from school to adult-life is the culmination of education. All that educators teach learners in their classrooms comes to fruition when the learners as adults enter successfully the adult world. However, learners with visual impairment are not meeting their goals for a desired adult lifestyle. Recent research worldwide indicate abysmal outcomes for individuals with disabilities of which persons with visual impairment are part and parcel, describing adult lives without employment, recreation and leisure, or community living options for the majority (Louis Harris Associates Poll, 2000, In Thoma, et al., 2002:82).

Taal and Simpaio (1997) also conducted a study on the relationship between adolescents' decision-making and their sense of control over their future. The results of their study indicated that knowledge of decision-making increases sense of control over achievements and enhances perception of school as an instrument for exploring future careers. This aspect of school as an instrument for exploration of future careers can also be a useful vehicle for the development of vocational self-concept. Thus explaining means-end relationships to learners with visual impairment, such as the function of education in realizing present and future goals, facilitate academic achievement, to enhance appropriate career choices (Fore & Riser, 2005:130). Learners with visual impairment who can incorporate decision-making skills in everyday lessons and explore career issues are more likely to develop their vocational self-concept. They are also more likely to attain decision-making self-efficacy with satisfaction. Hence, positive career outcomes (Fore & Riser, 2005:131).

2.3.1 The Impact of Mainstream Education and Inclusive Education on Development of Vocational Self-Concept and Decision-making Self-Efficacy

Mainstream education can be described as the system of education designed to meet the learning needs of learners without disabilities. On the other hand, inclusive education refers to an environment that is designed to meet diverse learning needs of all learners regardless of their cultural and social differences or ability and disability status. It is tailored to improve life chances of all learners through a comprehensive curriculum. Both types of education have positive influence on the development of vocational self-concept and decision-making self-efficacy. In the UK, for example, where inclusive education is currently being implemented, Shah (2005:113) states that the code of practice on the Identification and Assessment of Special Educational Needs (DFEE, 2001), declares that children have a right to be heard and should be encouraged to participate in any decision-making processes to meet their special educational needs (Read & Clements, 2001).

Shah (2005:113) likewise stresses that including opinions of children with disabilities in research and especially about their occupational futures is particularly timely. In UK, children with disabilities include those with a visual impairment after specific categorization of children with disabilities was abandoned. Shah's (2005) study on "Future selves: Career choices of young persons with disabilities", drew its participants from two special high schools, two mainstream secondary schools, two mainstream sixth form schools and one specialist further education college. Therefore, Shah's (2005) study includes learners with visual impairment.

The premise of Shah's (2005) study was, 'young learners with disabilities in Britain are less likely than their non-disabled peers to pursue academic subjects that would facilitate progression to future careers of their choice' (Shah, 2005:113). He attributed this premise to factors related to disability and how society reacts to it. The study was a follow-up of Burgess' (2003) findings which maintained that, despite Britain's on-going policy drive towards inclusion, mainstream schools were still not fully accessible. Learners with disabilities in Burgess' (2003) study had indicated that they could not study subjects of their choice because of limited access to the curriculum, the disabling environment and negative attitudes of teachers.

Consequently, Shah's (2005) study involved 30 young learners with disabilities who included learners with visual impairment. Shah's intention was to understand these learners' educational experiences and how they made particular decisions about their occupational futures. Results of this study indicated that educational transitions for the young learners with disabilities in special schools were different from the educational transitions experienced by those in mainstream schools. Transitions in mainstream schools involved the physical move from one school to another between nursery, primary secondary and up to sixth form education. In special schools, learners remained in the same segregated physical environment from infancy. These learners' experiences complicated transition because they were scared and anxious as they described their feelings about leaving school. Yet they still felt it was time for them to leave and experience something new. This affirmed earlier findings (Fennick, 2001:66) that an inclusive education is more capable of increasing opportunities for all learners that can strengthen their transition from school to adult life.

In essence, many learners from special schools lacked work experiences, in their segregated settings that would probably have been forthcoming in mainstream settings. Yet they all thought it was a good idea for them to be given an understanding of what activities they are best capable of performing to enhance their work skills. These learners with disabilities in special institutions also desired to know the extent to which work skills would best satisfy their survival, pleasure and contribution needs. Such experiences would have directly influenced these learners' vocational self-concept and decision-making self-efficacy (Shah, 2005:116). The implication of these experiences was the revelation that learners in special schools possessed limited post-school options and were more likely to be more dependent on their physical needs, relating to impairments rather than their individual educational and occupational aspirations. This meant they were more likely to sacrifice dreams of pursuing particular career paths for having support needs suitably met (Shah, 2005:114). So, these learners are less likely to develop adequate vocational self-concept and likewise are less likely to attain satisfactory decision-making self-efficacy.

Contrary to the experiences of learners in special schools, learners with special educational needs in mainstream schools were more concerned about physical access and poor facilities in mainstream schools as factors that prevented them from having equal academic and social opportunities than their non-disabled peers. They were more concerned about self-assertiveness in order for them to be included in social situations. They fought for elimination of barriers that limit the range of subjects they can choose from impeding their future career and social opportunities (Shah, 2005:116). These learners' concerns indicate that if they are given the appropriate inclusive education environment, they are more likely to develop their vocational self-concepts positively and thus their assertiveness would greatly enhance their decision-making self-efficacy.

Shah's (2005) findings are consistent with an earlier research (Shah, Arnold & Travers, 2004; Burgess, 2003). Both studies indicate that learners with disabilities are still restricted in terms of education and future career opportunities available to them. They are also still constrained from fully participating in social activities with their non-disabled peers through physical and curriculum barriers. These constraints result from procedures of individual institutions such as special schools, mainstream schools, and at times the entire education system (Shah, 2005:116). These findings are however, meant to enhance inclusion so that learners with disabilities are provided with enhanced chances alongside their non-disabled peers. The relevance of these findings to the current study lies in the premise that a well-established inclusive education setting coupled with comprehensive career guidance and counselling is likely to influence the development of vocational self-concept and career decision-making self-efficacy of all learners. Hence, if the above can be achieved in Kenya, learners with a visual impairment can benefit because they would be part of the inclusive education community.

The challenge for schools and educators thus, is to provide relevant, challenging and contemporary experiences in inclusive schools which will help learners with disabilities become full participating members of society (Fore & Riser, 2005:127). The decision-making self-efficacy skills of learners with special educational needs are proposed as worthwhile strategies that can promote maintenance and generalization of learned and observed behaviours in a variety of school and community settings (Fore & Riser, 2005; Blackorby and Wager, 1996). The combination of school and community experiences can best be facilitated through inclusive education which offers the environment within the learners' community settings as opposed to institutionalization that might set the learners with disabilities apart from their communities.

Assisting learners with disabilities, especially learners with visual impairment to achieve their vocational self-concept as a means of making realistic vocational goals is likewise a real challenge. This assistance should aim at making them aware of their abilities for self-evaluation and consequent self-appraisal and steer them away from societal stereotypic views. As Fore and Riser (2005:127) lament, research on maintenance and generalization of career planning for learners with disabilities has often been restricted to marginal topics and program conditions paying minimal attention to decision-making skills or development of vocational self-concept. Consequently, they have relatively narrow range of career options in today's labour market. The fundamental need for preparing learners with visual impairment for the world of work cannot be overemphasized because engaging in work greatly improves communication and social skills of learners with disabilities as they interact with their non-disabled counterparts. This is notwithstanding the major fact that work is often considered as a source of self-fulfilment and self-actualization (Furnham, & Steele, 1993). This fundamental need is what is envisioned for learners with visual impairment in this study.

2.3.2 Disability and Counselling Approaches for Learners with Visual Impairment in the School Setting

Learners with visual impairment have similar school potentials, or intellectual functioning, and educational aspirations as their sighted peers (Mengitsu, 1994:41). Yet, these learners often live a highly structured life. Often, many decisions are made and activities selected for them. In addition, it is difficult for these learners to cope with and overcome limitations, practical and emotional, that are caused by visual impairments without acquiring knowledge of and gaining experience in confronting obstacles, meeting challenges, and engaging in activities that develop problem-solving strategies (Wagner, 2004:708). Therefore, guidance and counselling interventions for learners with visual impairment are

crucial and should be long-term, emphasizing continuity rather than a traditional short-term intervention approach.

Career guidance and counselling approaches for learners with visual impairment, moreover, need not be substantially different from those of the population without disabilities. Various theoretical and empirical foundations agree that vocational theories should not be different for those with disabilities from those without disabilities, because there is greater diversity among persons with disabilities than between them and persons without disabilities. They also argue that the heterogeneity of persons with disabilities precludes the possibility of a single theory common to them all. Hence counselling approaches should adopt the same perception that learners with visual impairment are first and foremost human.

There are also, strong arguments in support of the assumption that there is no clear dichotomy between types of counselling approaches that are relevant for persons with disabilities and for those without disabilities. The complexity of vocational counselling is reduced to a single approach. There is solid justification for this approach and a general consensus, emerges on the basic principle of integration and multidisciplinary service models. Similarly, Mengistu, (1994: 40) asserts that the utility of separate provisions and treatments for persons with disabilities and those without disabilities would incur an artificial discrimination that has negative consequences. He thus asserts that the focus on the differences rather than similarities of the persons with disabilities to people in general may ultimately serve to isolate them even further from the general society. This would hence defeat the philosophy of inclusion.

Given the importance of increasing the participation of learners with visual impairment into mainstream education through inclusive education, and the resultant anticipation of their participation in the labour forces, the use of

traditional criteria of job rehabilitation according to disability type becomes outdated. These sentiments are echoed by Mengistu, (1994:38) in his assertion that the use of primary disability type to assign individuals into existing programmes and service delivery continuum is expensive, inefficient, causes much disjointedness, and hinders vocational behaviour. Within the context of vocational counselling, this approach produces negative self-appraisal and negative self-concepts, stigmatizations and stereotypes from overgeneralizations (Mengistu, 1994:38).

The previous findings have also indicated that preparation of vocational programmes for learners with visual impairment without their involvement is less effective. An overwhelming majority of these learners are often critical of vocational planning done *for*, rather than *with*, them because such plans do not reflect their vocational interests, values or competencies (Mengistu, 1994:37). Learners with visual impairment, like their counterparts without disabilities, view work as equally important in their lives and visual impairment does not override career development (Mengitsu, 1994). However, learners with visual impairment may significantly be less satisfied with career guidance and counselling services as well as training opportunities offered to them compared with their peers without disabilities (Gillies, et al., 1998:397).

2.3.3 Vocational Choices: The Challenges for Learners with Visual Impairment

Vocational self-concept formation is an important task in career development as well as ego-identity achievement (Yanchak, Lease, & Strauser, 2005; Sharf, 2002). Possessing a secure or clear stable picture of one's goals, interests, personality and talents contributes to appropriate vocational decision-making and confidence in one's ability to make career-related decisions. Failure to form a

stable vocational self-concept often results in career indecision (Yanchak, et al., 2005:130)

Learners with visual impairment typically, are likely to have more complex career development processes than their sighted peers and are more susceptible to vocational self-concept and career decision-making problems (Ochs & Roessler, 2001; Luzzo, Hitchings, Retish, & Shoemaker, 1999). Career decision-making difficulties are related to inadequate decision-making skills, unclear goals, lack of vocational information, perceived social barriers and value conflicts (Germeijs & DeBoeck, 2003; Osipow, 1999) and can be significant obstacles to employment for many persons with visual impairment (Yanchak, et al., 2005; Conyers, & Szymanski, 1996). Considering the staggering unemployment and underemployment rates reported world-wide, of persons with disabilities, there is heightened need to understand career-related issues of persons with disability (Yanchak, et al., 2005). Hence, the focus of this study was to understand issues that affect learners with visual impairment, specifically on vocational self-concept and decision-making.

To understand the development of vocational self-concept and decision-making self-efficacy, the above studies suggested that there are a number of individual and environmental factors that influence this development process in learners with disabilities. Individual factors include, but are not limited to cultural background (Yanchak, et al., 2005, Szymanski & Hershenson, 1998), self-efficacy (Szymanski & Hershenson, 1998) and disability status (Yanchak, et al., 2005). Environmental factors on the other hand include, family involvement (Hitchings, Luzzo, Ristow, Horvath, Retish, 1999; Tanners, 2001), work experiences (Bulstein, Juntunen, & Worthington, 2000), and decision-making opportunities (Yanchak, et al., 2005). All these have been found to affect vocational self-

concept and career decision-making abilities of learners with disabilities. Hence, this study's desire was to explore whether these factors affect the development of vocational self-concept and decision-making self-concept among learners with visual impairment.

In addition, research reports indicate that, the support that has been incorporated in many career guidance and counselling programmes, currently in developed countries, has been organized around the idea of self-exploration, environmental exploration and decision-making (Esbroeck, Tibos, & Zaman, 2005:6). This indicates that the process of career guidance and counselling would require that learners with visual impairment, be helped along these issues bearing in mind that career can be an unpredictable life-long evolution of small steps in reaction to the environment the learners live in. These small steps enhance the development of vocational self-concept and decision-making self-efficacy as the individual learners recognize their life-roles as workers and eventual family builders (Esbroeck, et al., 2005:6; Greenhaus, Callanan & Godshalk, 2000).

Furthermore, Elliot, Uswatte, Lewis, and Palmatier (2000) suggest a relationship between high goal instability and greater social discomfort and self-consciousness in persons with disabilities. Elliot, et al., (2000, In Yanchak, et al., 2005:131) assert that essentially, embarrassment regarding physical impairment can impede a person's capacity to set vocational goals and pursue career ventures. This often results from cognitive social learning where persons with disabilities get the discernment that society only appreciates a sound and perfect body, physical attractiveness, independence and achievement. Since people with visual impairment cannot meet these values, society downgrades them to a lower position (Van Huijgevoort, 2002:784). The researcher also experienced a similar perception (of a learner's with visual impairment in a confession, in Kenyatta

University, 2003). John, (not the real name) lamented, “I know I can make a very good Newscaster (true statement) but who wants to see a blind person’s face on the television screen!” Yet self-knowledge and occupational knowledge provide a basis for an individual’s career decision-making process (Yanchak, et al., 2005:131). Without intervention, these learners’ perceptions, dependence on others, and avoidance would continue into adulthood. This would then relegate them to depending on others to find jobs for them, and they are likely to remain in lower paying, and less responsible positions (Fore & Riser, 2005:131). Hence, learners with visual impairment need to acquire adequate self-knowledge to counteract such impediments.

2.3.4 Career Intervention for Learners with Visual Impairment Amid Current Rapid Change in the Labour Market

A career development culture has become both timely and appropriate given our current social milieu. Current literature indicates the concern that has arose world-wide regarding career development and employment amidst fast changing labour market. The shift in educational policy and practice toward principles of inclusiveness articulate the role that school can play in career guidance and counselling for individuals with disabilities. In this view of career guidance and counselling, there is the responsibility for education for all, not just for the physically and academically able (Raeye, 1999:21). Furthermore, there is a commitment to the socially democratic principles of equity, tolerance and cultural sensitivity (Raeye, 1999:21; Ainscow, 1995, in Raeye, 1999:21).

Principles of inclusiveness, therefore, have impacted upon the traditional segregated school settings for learners with visual impairment. Learners with varying degrees of visual impairment are currently integrated into the community schools. Likewise, the employment arena has to be adjusted to dramatically different work settings for individuals with visual impairment. A shift from

segregated workshops has to be facilitated by supportive employment initiatives (Raeye, 1999:22; Lent 1996; Ford & Nannes, 1995, In Raeye, 1999:22). All these ideas call for improved career guidance and counselling practices that are capable of facilitating change towards effective transitions into occupational and social inclusion.

The career guidance and counselling process in schools should foster prevocational preparation and work experiences for individuals with visual impairment so that they acquire skills related to the current work context. Many individuals with visual impairment have poorly developed social and problem solving-skills that impact on social relationships, including their ability to succeed at work (Conger, 1994, in Raeye, 1999:22). Limited social and work experiences tend to impede social and problem-solving skills for persons with disabilities, more than their ability level (Parmenter, 1994, in Raeye, 1999:22). These skills may be transferred to other work-related experiences, thus supporting positive perceptions of career decision-making self-efficacy (Reeke, 1993, in Raeye, 1999:24). The importance of incorporating the family as a resource into development of vocational self-concept and decision-making self-efficacy and transition planning for learners with visual impairment is also emphasized (Burkhead & Wilson, 1995, McMahan & Patton, 1997 both in Raeye, 1999:24).

The current career guidance and counselling approaches need to focus on a systematic framework that considers the influences of broader context of family, school and the wider community and the developmental stages of career theories that are appropriate to the learners with visual impairment (Patton & McMahan, 1997, in Raeye, 1999:22). Systematic career guidance would provide a framework that focuses on four essential elements of vocational development (McCowan & McKenzie, 1994, in, Raeye, 1999:22). These elements include learning about self in relation to work, learning about the world of work, learning how to make career

plans and decisions, implementing career decisions and managing work transition. Although these elements are essential to career guidance and counselling, there has been very little research done on specific issues relating to career development of persons with visual impairment.

Essentially, learners with visual impairment need to understand that development of vocational self-concept means for many people, not unfolding of a career in the popular sense, but rather movement toward and through a life of occupational change, of multiple trails and instability. This understanding may not be achieved in the absence of a comprehensive career guidance and counselling, within a broad variety of careers, The career guidance processes would enable them to take into account the fact that some learners with visual impairment, should look forward to stable career patterns (i.e. a “life work”), while many other learners, often the majority should look forward to unstable and multiple trial career patterns (i.e. a life of changing work). This kind of approach in career guidance and counselling would then foster in the learners other positive aspects such as patience and persistence as they acquire their vocational self-concept.

Finally support networks are paramount for learners with visual impairment, as they empower them to cope with rapid change due to economic trends and a competitive labour market. Competition with peers for jobs in the labour market is the new reality as employment is now focused on community integration for persons with visual impairment. Currently, career-oriented schooling is viewed as the good way to promote successful transitions for young adults with visual impairment, including their self-determination development (Eisenman & Wilson, 2000; Furney & Salembier, 2000; Wehmeyer, 1995, in Eisenman, 2001:4). This implies that learners with visual impairment should first and foremost understand themselves in relation to the kind of world of work they can successfully engage in (vocational self-concept). Second, they should be in a position to decide on

their own and take risks responsibly (decision-making self-efficacy) on the vocations of their choice.

2.3.5 Learners' Perceived Preferences encompass Career, Employment and Community Integration or Involvement

Learners with visual impairment would definitely prefer development of positive self-image, parental involvement as well as coordinated planning, community competence and employment. It therefore, becomes evident that education and the transition process cannot be a responsibility of the school alone. The cooperation of parents, teachers, other professionals in the community and the entire citizenry formulate the vital organ of development of vocational self-concept and self-efficacy in decision-making for effective transition from school to adult life.

A study by Abery and Stancliffe (1996) identified several issues that affect learner's decision-making self-efficacy, by focusing on the nature of the interactions between transition team members and learners. They also looked at linkages between school and adult support agencies, procedures and policies that affect inclusion in general education classrooms, including vocational courses; meeting preparation procedures and assessments; the time limits for holding meetings; and school procedures that mandate teacher control of the process. Finally, the study explored community and societal norms, custom, and laws that can predetermine whether community involvement could be a possibility for a student.

The results of this study consistently reveal that career decision-making is often affected by uncontrollable, external, and stable factors such as professionals and parents making decisions on behalf of learners with disability. Such learners consequently exhibit pessimistic or low self-efficacy for career decision making, and serves as a barrier to effective career development (Luzzo & Jenkins-Smith,

1998; Abery & Stancliffe, 1996; Nauta & Epperson, 1995). This implies that learners would not only prefer to be involved in all matters that touch on their present and future life but would also want to make decisions themselves in all their activities. The importance of acquiring decision-making skills in the career development process has been repeatedly emphasized (Luzzo et al., 1998; Nauta & Epperson, 1995). It has been evidenced that learners who exhibit an optimistic career decision-making efforts, believe that they are responsible for career decisions in their lives, and possess a perspective toward career development that is likely to bring about vocational satisfaction and success in their life (Luzzo & Jenkins-Smith, 1998).

In addition, Hitchings, et al., (1999) in their comparative study of learners with and without disabilities in the US, tried to answer the following three questions. (1) Can learners specifically describe their disabilities? (2) How do learners with disabilities compare to their peers without disabilities in terms of their career decision-making attitudes? and (3) What resources and activities do learners with and without disabilities use in their selection of college majors in pursuit of their careers? Forty-four learners with disabilities were involved alongside thirty-one learners without disabilities all in the age range of 19-51 years. The results of this study generally exhibited more problematic career decision-making attitudes and beliefs among learners with disabilities than was found among learners without disabilities (Hitchings et al., 1999). This study indicated that learners with disabilities exhibited relatively low levels of CDMSE possibly because parents and teachers made the majority of educational and vocational decisions for them.

The above study indicates that, parents and teachers who take the responsibility of education planning for learners with disabilities may limit the degree to which the learners are involved in early career decisions. This can easily lead to low levels of personal confidence in learners' ability to engage in the career decision-making

process and may foster the belief that they possess very little responsibility for making a career decision. This contradicts learner's preference of making their own decisions.

Duschene (1998), on recognizing that it is critical to develop self-efficacy and career awareness as early as possible, used multimedia and assistive technology to help fifth graders with disabilities identify career interests. These interventions helped them prepare for job-site visits, and watch videotaped workers' interviews. All these were combined with occupation information into multimedia presentations. These interventions resulted in positive academic, social and career related outcomes. The implication of the improvement in academic social and career outcomes revealed that learners prefer to be involved in a variety of activities including those that portray community settings and local labour market. This is likewise relevant for learners with visual impairment and entails what can be incorporated in the career guidance and counselling process.

2.3.6 The Role of Peers

Harting, Porfeli and Vondrack (2004:411) argue that, vocational exploration, awareness, and aspirations enhance expectations, interests and adaptability during early childhood. These expectations, interests and adaptability facilitate the development of personal identity and connectedness to the social and interpersonal world. Bandura (1997) asserts that early explorations are achieved through peers' role play or observation of siblings as they engage in work related activities. Learners with visual impairment tend to have limited opportunities for roles play due to fewer role models. The segregated service models of schooling also act negatively in peer interaction, as the peers they get into contact with may be having deficiencies as themselves. This view suggests inclusive education is vital for interaction with peers who would socialize learners with disabilities to wider career exploration during their role play.

In addition, successful persons with visual impairment have indicated school friends and peer groups as being influential both in educational and vocational aspirations (Noonan, 2004:73). The source of peer support came from both disabled and non-disabled friends who acted as their role models. These positive influences have, however, been more experienced in mainstream schools than in special schools again suggesting inclusive education, as an ideal environment.

The peer support suggested above, is ingrained in the peer culture which may not be that easily accessible for learners with visual impairment. A study by Rosenblum (2004) indicated that frequently these learners lament that they struggle to gain entry into peer relationships. They perceive sighted peers as being uncertain about visual impairments imagining them as contagious and thus these ideas scare off the sighted peers from profitable relationships (Rosenblum, 2004:6). Adolescents in Rosenblum's (2004) study indicated that they had age-appropriate best friendships in which they were valued and also in turn valued their best friends. They still lamented that friendships often took a long time to develop and the initial phase was the most difficult (Rosenblum, 2004:7). These adolescents wished the real world worked like an internet, where you could meet people and know them before first seeing their disability (Rosenblum, 2004:7). She therefore, argues that, it is important for families and professionals who work with young children with visual impairment to help them explore a variety of hobbies and develop skills in them. This would enable them to engage with peers when opportunities are open to them, so that as they participate their peers may develop friendships as they discover that they have more in common than they have differences.

At any rate, learners with visual impairment may gain information and work-related strategies. Specifically, opportunities to have their own experiences alongside their sighted peers in natural situations would help them overcome many obstacles of daily life (Wagner, 2004:706). The combination of information, practical application and reflection in a natural habitat can help these learners develop the attitudes, knowledge and skills that are necessary to develop vocational self-concept and decision-making self-efficacy as they prepare themselves for their future careers where they will still meet peers to contend with.

2.4 The Role of Parents

Parents have a lot of influence on their children's occupational aspirations irrespective of the fact that they are with or without disabilities. Literature indicates that some of early fantasies on occupations are influenced by occupations held by immediate members of the family (that is, parents, siblings or significant others in the children's environment). The fantasies may become deep rooted especially where the children envision certain occupations as meeting their future needs. These fantasies may surpass the realities of disability, thus the children failing to understand the handicaps the disability may have imposed on their aspirations.

Furthermore, family members are role models for young people in the sense that they describe their working lives and how they observe other employees. They can have a strong impact on the way children perceive working adults and the expectations they may have on their own future (Wright, 1997:119). The parents and family members, therefore, become important agents of support networks in the development of vocational self-concept and decision- making self-efficacy.

Parents and family members should work in close collaboration with teachers and other paraprofessionals as well as community members whose interests are enhancement of successful transition from school to adult life for learners with disabilities. Wright (1997) laments the relatively low level of parental involvement in their children's education and likewise the educators' deprivation of the unique insights and skills parents have concerning their offspring, which may hamper adequate development of vocational self-concept (Wright, 1997:119). The role of professionals is to provide parents and family with information about employment, the contributions it can make to their child's life, and to advise parents realistically about employment prospects of their child. Professionals should also tap parents' potential contributions during the transition process and also recognise the role of parents in fostering independence and developing their child's adult status (Wright, 1997:119). Russell (2005:119) highlights the role of parents as advocates of their children who should be allowed to express their wishes. In Britain, for example, the Special Educational Needs (SNE) code of practice (DfES, 2001, in Russell, 2005:119) emphasizes the need for the professionals to take into account the parents' wishes, feelings and perspectives on their child's development. The argument behind this emphasis is based on the assumption that if the parents are given the opportunity to achieve their wishes, they will develop expectations concerning their children and their education.

On the other hand, Russell (2003) had earlier argued that parents generally develop expectations of their children's education through their own experiences, information provided by teachers, the media and informal networks of parents. This implies that parents have unique perspectives that they can bring to the individual needs and aspirations of their children and these should be valued specifically as they might bring insight into the local labour market. Parents, on the other, hand indicate that the experience, expertise and attitudes of

professionals working in schools with learners with disabilities and their parents, were important factors in influencing the outcome of their expectations (Russell, 2005:119).

Pierangelo and Giuliani (2004:74) suggest several tips for parents who are eager to see their children with disabilities experience successful transition. Some of the tips include parents becoming familiar with the school approaches to career development, transition planning and goals. The parents should get information from the teacher in charge of developing vocational services or team members that help in facilitating the development of vocational self-concept and decision-making self-efficacy. The informed parents would then be eager to give their input regarding annual goals and objectives, specific objectives and also become active monitors of their children's with disability progress and become objective evaluators.

Furthermore, parents have the right to access their child's educational records, to question decisions made by teachers without their input, to demand appropriate assessment, and to advocate for positive changes in the school's transition curriculum. They should be aware that their children with disability have the right to receive needed transition services and to contribute to the nature of the services and to contribute to the nature of the services they receive. Parents should also let their children know that their interests and preferences are integral parts of the development of the children's vocational self-concept and decision-making self-efficacy to enable them to formulate appropriate transitional goals. They should encourage their children to communicate those interests and preferences and to do everything they can to ensure that their children's opinions are understood and valued by the other members of the transition team.

Finally, parents know their children better than anyone else. Their observations can contribute greatly to the planning of their children's transition process because they know their children's strengths, weaknesses, desires and preferences. They are more capable of reinforcing their children's behaviours toward preparation for transition from school to the world of work. Parents can do many things to help their children be ready for transition. Being less overprotective and presenting opportunities that reinforce development of work skills. Likewise, they can reinforce skills in self-advocacy, self-care, household management and decision-making. These skills are vital ingredients for assuming the responsibility of adulthood and hence enhancing adequate development of vocational self-concept and decision-making self-efficacy.

Other suggestions on the role of parents include, telling the teachers about how the children are doing at home and also talking to other parents of children with similar disability for practical advice and emotional support. Parents should also be aware that the effect of some disabilities on their children's development greatly depends on the severity. For instance, the effect of a visual impairment on development of their children's vocational self-concept will depend on the severity, the type of visual loss, age at which the condition appears, and the overall functioning level of the children. Young children with visual disability may also have little reason to explore interesting objects in their environments and as such may miss opportunities to have early learning experiences. The lack of exploration may continue until learning becomes motivating or until interventions begin. Parents should also be aware that since such children cannot see them or their peers, they may not be able to imitate social or vocational behaviours that children learn at an early age. (Pierangelo & Giuliani, 2004:74).

2.5 The Challenges of Technology

The increased technology dependence of today's workforce can either hinder or help people with disabilities. While new technology, deregulation and more flexible production techniques may prove enabling to some, to others they will almost certainly mean worsening social isolation, and new and more enhanced forms of exclusion (Barnes, 2000:446). Few studies world-wide have been conducted to describe how the use of computers and information technology (ICT) can influence children's play, communication and development and what importance it has for families with children with disabilities (Lindstrand, 2001:43).

Nevertheless, the field of information technology may offer persons with disabilities opportunities for career advancement and employment. Dodds (2000) observes that when an individual is seated in front of a computer and is communicating through a website, the disability is invisible and chances of prejudices minimized. This is so because the conspicuous impairment or the white cane, used by the individual remains out of sight. In as much as the intent is not to hide the disability, the focus tends to successfully shift from the disability to the person's capability. Technological development thus creates dreams of a better future for young persons with visual impairment (Lindstrand, 2001:50).

Persons with visual impairments world-wide, and also in Kenya, argue that information technology can revolutionize the way they can communicate and access information (Kieti, 2007:3; Osundwa, 2007:2). Adaptive Technology is becoming increasingly useful particularly for persons with a visual impairment in the developed and developing countries. The use of screen reading/magnifying soft ware has made it possible for persons who are blind and those with low vision to transit into a wider range of the world of employment. Unfortunately, assistive technology has not been given priority by the Kenyan government. Few

persons with visual impairment who have accessed Information Communication Technology (ICT) have been assisted by non-governmental organizations. Hence, many employers shy away from employing persons with visual impairment due to the extra costs they might incur such as; hiring personal assistants for them.

In addition, limited access to Information Communication Technology also compounds the problem of employment for persons with visual impairment because those who may want to engage in business as a form of self-employment cannot access information about business opportunities e.g. tenders in Braille or read about business regulations and requirements such as the stock exchange index in daily newspapers or through the internet. These are problems that can be eased if the Kenya Government can take a bold step of assisting learners with visual impairment at school level in acquiring computer skills so that there can be an increased number of information communication technology (ICT) literate persons with visual impairment. Moreover, information technology is cost-effective because the translation of printed materials and purchase of equipment into Braille can comparatively be very expensive. For example, the standard Perkins Braille type writer, costs US\$400 whilst a reconditioned computer and Dolphin assistive technology costs less than US\$250. Additionally, the cost of supplying essential text books in Braille is high: approximately US\$45 for a three volume secondary school text book (source African Braille Centre, Nairobi). Therefore assistive technology remains a virgin area that can be tapped for the benefit of persons with visual impairment (Osundwa, 2007:4).

Specifically, two factors are of particular concern here: accessibility and affordability. Although laws in some nations address technology access for people with visual impairment, such as in developed countries, still many have difficulty accessing technology without assistance or specially designed accommodations. In addition it is often noted that, persons with disabilities are often economically

disadvantaged, and these include persons with visual impairment. Thus, it may be difficult to afford a basic computer let alone adaptive hardware or software. Therefore, the education system through government support has the vital role of facilitating knowledge in information technology in the school environment in response to the rapid changes in the world of work, with technology taking the centre stage.

It is also clear that changes in the world of work are mainly due to technological and economical globalization. Globalization has expanded the labour market, redefined the way the world economy works and transformed the way society looks at work. The definition of a globalized economy is ‘one in which neither distance nor national borders impede economic transactions’ (Wolf, 2001:178). Countries once seen as overly protective of markets are shifting to a greater openness to international markets (Wolf, 2001:178).

As a result, countries that recognize the economic benefits of globalization have learned to optimize skilled and unskilled workforce. The workforce has become more mobile as national economic systems have become integrated with the ebb and flow of goods and capital across borders. In the globalized economy, the confined office space and eight-hour work day have become concepts of the past. The global office has in effect increased the use of offshore professionals, independent contractors and temporary employees (Lucore, 2002). In the much faster pace of transactions in the global economy, the labour force has become more fluid. Mergers, downsizing, re-engineering, and outsourcing are now normal modes of operations and employment stability is relatively rare. This global phenomenon has set theorists and practitioners at work in order to understand this new reality (Collin & Young, 2000). Kenya compares poorly in relation to the amount of research available to deal with these challenges in the labour market and almost none for persons with visual impairment.

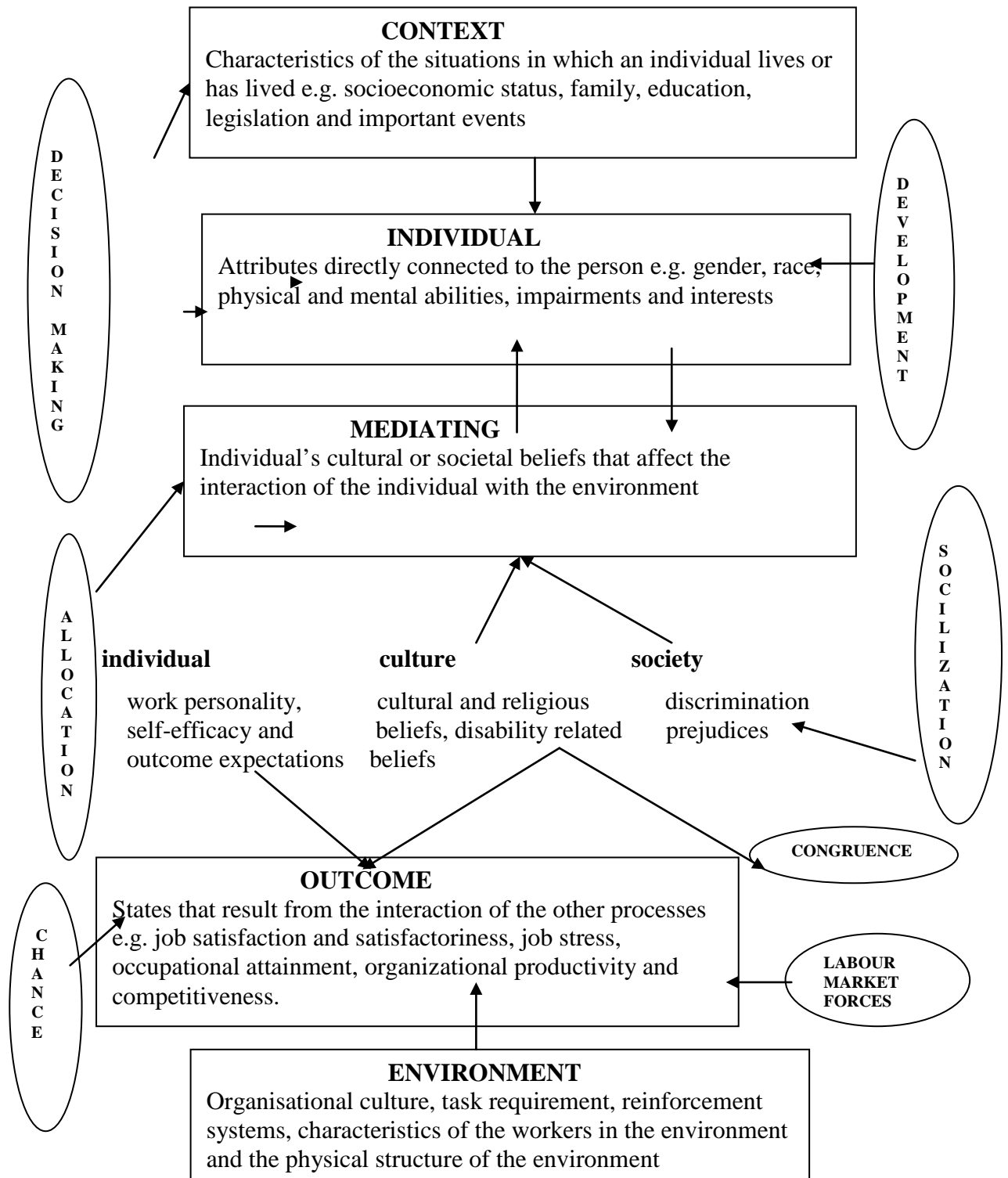
All the above challenges are part of what learners with visual impairment in Kenya are expected to meet as they try to enter the labour market. Comprehensive interventions have been shown to be beneficial for persons with visual impairment (Conyers & Szymanski, 1998; Merz & Szymanski, 1997). In response to the current rapid changes in the world of work, an ecological model of vocational behaviour, seems to identify possible challenges for persons with disabilities, and provide useful suggestions for career counsellors (Szymanski, Enright, Hershenson, & Ettinger, 2001). This model is embraced by the researcher because it is likely to reveal various gaps that are amenable to change through career guidance and counselling for further enhancement of development of vocational self-concept and decision-making self-efficacy.

Szymanski et al's (2001) ecological model for vocational behaviour, draws from, Super's Lifespan Developmental Theory (Super, Savickas, & Super, 1996); Holland's Typology (Holland, 1985); Trait Factor Theory (Brown, 1990); and Krumboltz' Learning Theory of Career Counselling (Mitchell & Krumboltz, 1996) all of which are developmentally inclined. The ecological model theory framework is thus conceptualized on an eclectic approach that is quite comprehensive. The model is proposed to aid in school guidance and counselling as well as a resourceful tool for rehabilitation career counsellor on identification of a range of individual, social and environmental influences on vocational self-concept and decision-making behaviour. It also identifies sub-systems that affect learners, such as attitudes, family and labour market. Finally, it aids the selection of constructs and interventions from other career development theories such as salient variables that impact on an individual's career development over a lifespan.

The researcher embraced the ecological model of vocational behaviour adopted from Szymanski, et al. (2001) as a conceptual framework because of its eclectic

approach to vocational development and decision making, paying attention to core factors that can hinder or facilitate development of vocational self-concept and decision making self-efficacy. It also incorporates the environment which is an important aspect especially while mediating the individual's cultural or societal beliefs that affect the interaction of the individual with the environment. A conducive environment is a major concern of inclusion whether in school settings or within the community. The school is a very influential environment for learners to develop vocational self-concept and decision- making self-efficacy, but impact would be even greater if the combined efforts of home, school and the community are put together to enable the learners see themselves holistically in their overall development.

fig. 2.1: A Conceptual Framework on Ecological Model for Vocational Behaviour



2.6 The societal Attitudes and Status Accorded Persons with Visual Impairment in Kenya

The population of persons with disabilities is estimated at 10 per cent of the total population in Kenya. About 25 per cent of this population constitute children of school-going age. Enrolment in Special Education programmes is low given that out of 750,000 children with disabilities who have reached school-going age, only an estimated 90,000 have been assessed and some placed in programs to access education (Republic of Kenya, 2005a:8). On average these children go to school when they are about 8 years of age and above. So, they become adults before they complete their educational programmes. This situation makes enrolment level of learners with disabilities at tertiary level to be very low. For instance, in Kenyatta University, out of a population of about fifteen thousand learners, there are about fifty students with disabilities. Three quarters of the learners with disabilities are learners with visual impairment. Kenyatta University admits the highest number of learners with disabilities compared to other local universities.

Considering that very few persons with visual impairment attain training in professional jobs, many are still relegated to the margins of society. Only manual and poorly paid jobs are open to them. Physical restrictions bar them from public utilities and transport and societal attitudes, prejudices and ignorance have continually led to unnecessary institutionalization (Songe, 2004:8; Abagi, 1997). Many times, persons with visual impairment are heard lamenting about their status. Sinyo (1999) on her seminar paper presentation lamented that “the greatest tragedy is not death, but to live a life without a purpose”. These sentiments were echoed on the theme of Employment: A Right to Equal Opportunity at the Second Africa Forum Conference (Uganda). Sinyo who has a visual impairment expressed a consumer’s point of view.

Sinyo (1999) portrays the picture of what happens to most learners with visual impairment who successfully complete formal education at various levels such as primary, secondary, tertiary colleges or even the few who access university education. They often find themselves in traditional occupations such as teaching, law, carpentry, weaving, knitting, telephone operators, leather works and other menial jobs. With increased technological advancement, some of these jobs are becoming obsolete, such as telephone operators.

The mention of traditional occupations implies occupations that have already been stereotyped for a certain category of disability. In Kenya, popular occupations among persons with visual impairment have been in the fields of teaching, telephone operators, cobblers and quite a few in music and Law. These vocational areas are often perpetuated in career guidance superficially even though no study has ever been conducted to prove that these are the only occupations fit for persons with visual impairment. The choice of occupations is also very narrow and most often not done by the persons themselves resulting to the earlier mentioned outcry by persons with a visual impairment that “Nothing for Us Without US” slogan. When their outcry for opportunity to determine their own vocational destiny is ignored, they simply go through the vocational training, collect what is termed as the “starting out equipment” to start self-employment, sell the equipment and go out on the streets of our major towns to beg.

The idea of begging is fruitful for persons with visual impairment in Kenya, as well as other types of disability such as physical impairment. This may be traced from the way persons with disability have been viewed in Kenya over time. Ndurumo (1993) argues that, the way a country’s society view and value persons with disability and how they allocate its resources greatly influence the status of the population with disability. Ndurumo (1993) laments that Kenya, being a

developing country, rebuilding from colonial oppression, left the initiation of Special Education to church organizations. These include Salvation Army, The Catholic Church, the Presbyterian Church of East Africa, voluntary organizations and non-governmental bodies such as Rotary International and The Lions Club of Kenya. All these organisations have had a tendency of treating the education provision and all other services as charity rather than right for those with disabilities. These organizations are complimented by the work of the societies for each handicap, for example, Kenya Society for the Blind. These charity orientations have sipped into the society's mind such that many charity activities are perpetuated for "the less privileged members of our society", "the disabled members of our society" shadowing what they need most...Opportunity Not Sympathy". These slogans are commonly used by the non-disabled population especially where charity events are being addressed.

This status quo is however, changing with the increased involvement of the Kenya government in the education of all learners. The call for Education For All (EFA) and the eagerness it has in understanding the principles of inclusive education pave way for a shift from the earlier charity orientation to an understanding that education and preparation for adult life of all learners is their human right. It should never be seen as a privilege or charity since this negates what the Salamanca Statement and framework for action on Special Needs Education (1994) stand for and its reaffirmation of the right to education of every individual.

The government of Kenya has therefore, heeded to the call for Education For All (EFA) in light of Jomtien (1990) Conference recommendations and also in line with trying to fulfil the Millennium Development Goals by 2015 (Republic of Kenya 2005b:26), all of which can never be realized unless the disadvantaged

groups are dealt with. Furthermore, the government realizes that there has to be greater concern to ensure that various disadvantaged groups hitherto learners with various special educational needs, denied education by all kinds of factors are assisted to access education (Republic of Kenya, 2005a; 2005b; 1999). Furthermore, the legislation of The Persons with Disabilities Act (2003) marks a milestone towards litigation for educational rights of learners with disability in Kenya. The United Nations Convention on the Rights of Persons with Disabilities (2006) also marks another support pillar for support of access to education in the most appropriate way, preferably in inclusive schools. The Kenya Government being a signatory to this convention is expected to ratify it as soon as possible. All these are fertile grounds for making favourable changes for learners with disability and specifically learners with visual impairment.

The major objective of the government and commitment would be to ensure that educational opportunities are availed for full development of individual talent and ability to all through an open door system so that no Kenyan is denied the chance to learn whatever they want and whenever they want (The Persons with Disability Act, 2003). The government asserts that it is fully committed to an education system that guarantees the right of every learner to quality and relevant education (Republic of Kenya 2005a:4). Quality and relevance of education are key elements in the conceptualization of inclusive education especially in relation to learners with disabilities in mainstream schools. This is a desirable step in the right direction especially for the population under study (learners with visual impairment in Kenya).

In addition, The Persons with Disability Act of Kenya (2003) paves a fertile ground for successful transition from school to adult-life by its wide coverage on issues related to education and future integration in terms of employment. Among

the rights the Act has advocated for include, right to admission for learners with disability to any course of study, where ability and not disability becomes the essential determining factor. Second, a qualified employee with disability has a right to the same terms and conditions of employment and same compensations, privileges, benefits, fringe benefits, incentives or allowances as qualified able-bodied employees. This is notwithstanding an additional benefit of tax exemption from all income accruing from employment. All these establishments can be exploited only if the learners with disability are appropriately prepared to utilize their abilities, aptitudes and talents through fully integrated career guidance and counselling that gives meaning to school subjects in relation to future occupations specifically learners with visual impairment. This integration is capable of nurturing the development of vocational self-concept and decision-making self-efficacy among these learners. Paying attention to career development in the school curriculum will not benefit only the individual, but the society (Scholl, 1986:405).

2.7 Challenges that Might Face Persons with Visual Impairment in Kenya, Currently and in Future if Intervention is Lacking

Throughout the world persons with disability are at significant risk of unemployment or underemployment. In the US and Canada, for instance, only fewer than half of the work-aged adults with disability, are employed. Those employed often have low earnings (Schriner, 2001). It is not an overstatement, therefore, to say that people with disabilities are almost universally at the bottom rung of the socio-economic ladder. Furthermore, significant numbers of those individuals with disability who are employed have experienced some form of job discrimination, even in the presence of the protective legislation such as the US Americans with Disabilities Act (Kennedy & Olney, 2001).

Apart from job discrimination, the current changes in the labour market compound employment prospects for persons with disabilities. Buchanan & Watson (2000:28) argue the case of Australian vocational rehabilitation services thus:

Labour markets are now characterized by high levels of unemployment, a high degree of casualization of workforce, growth of precarious work and a massive increase in low-paid jobs in the service sector. Vulnerable workers in this labour market include many persons with disabilities. These workers are likely to suffer labour market churning... (Buchanan & Watson, 2000).

In this environment, the traditional job placement model of rehabilitation service delivery is not sustainable in terms of ensuring durable and satisfying employment options for many persons with disability (Buys, Buys, Kendall & Davis, 2001, in Buys, Hensby & Rennie, 2003:37).

This worldwide trends in labour affect the developing countries more than the developed ones. Kenya therefore, being a developing country may be having a worse situation than what is being cited above. Of course, Kenya's unemployment rate and poverty index is much higher than US, Australia and other developed countries. The Kenya education system in its part is not propelling persons with visual impairment into employment in all sectors of the economy. For instance, according to the Kenya's economic recovery survey (2006), the economy created 458.9 thousand new jobs in 2005, representing an increase of 5.9 percent with the majority coming from the informal sector. This being a good achievement as it seems, has limited job opportunities that suit persons with visual impairment.

The rapid growth in provision of employment opportunities in Kenya has not focused on persons with visual impairment (Osundwa, 2007:6). The main setback could also be the fact that persons with visual impairment are ill-prepared for

workforce in the formal and informal sector during their schooling and rehabilitation. The fact that our education system has not been able to produce persons with visual impairment who can widely compete in the labour force, negate the principles of social inclusion in later adult life. Second, the courses offered at the vocational training level have remained changeless for as long as those training centres have existed. Because of the rapid changes, that have been brought about by technology, the job market is also constantly fluid. An urgent review of the curriculum and vocational guidance and counselling must be commissioned (Osundwa, 2007:7).

If research is neglected in the area of career guidance and counselling for learners with a visual impairment, they will continue to relegate in the lower rung of the society. The implication will then be that, persons with visual impairment continue to remain Kenyans liabilities, whereas they are capable of being developed into productive members of our society as assets and not liabilities.

2.8 Summary

This chapter has reviewed various issues that would enhance the development of vocational self-concept and decision-making self-efficacy among learners with visual impairment in Kenya. The various studies conducted with learners with disabilities, with learners with visual impairment constituting part of the samples, world-wide have demonstrated the applicability of Super's career development through the lifespan and Betz and Taylor's Career Decision-making Self-efficacy Theories as worthwhile approaches in dealing with career development and indecision among learners with disabilities. The issues of learners' involvement in their career development and decision-making activities are emphasized as empowering and more likely to facilitate learners in taking control of their future selves. The roles of school, parents, peers and community are also advocated for if transition into adulthood and the world of work are expected to be successful.

Finally, the various efforts by the government of Kenya to identify and deal with deficits in the education system is explored as offering opportunities for positive change among learners with disabilities and specifically learners with a visual impairment who are the subjects of this study.

CHAPTER THREE
LEARNERS WITH VISUAL IMPAIRMENT AND THE
CAREER GUIDANCE AND COUNSELLING PRACTICED IN
KENYAN SCHOOLS

3.1 Introduction

Kenya has embarked on a policy framework geared towards providing educational opportunities to all Kenyan learners. The government's highest priority is to ensure affordable and equitable access to education. To achieve this, entails collaborating with the private sector, non-governmental organizations such as various sponsors of Special Needs Education and all other development partners so as to be able to provide additional educational facilities.

The government also recognizes the limited access and quality of education for learners with disabilities. It is, therefore, in the process of developing a national policy that will comprehensively define all areas of educational needs. Among the key policies being addressed are: Encouraging research in the field of Special Needs Education, for a reliable database, and designing and implementing programmes that enhance inclusive education in all institutions. The government has also embarked on improving the 110 Special Needs Education schools through provision of adequate equipment and teaching and learning resources as well restructuring 18,000 regular schools to receive all children including those with disabilities in inclusive environment by 2010 (Republic of Kenya, 2005b).

Thus, a research based data on the needs of learners with visual impairment in career guidance and counselling that would facilitate development of vocational self-concept and decision-making self-efficacy would be timely. These data would enhance policy formulation as well as add voice on the need for enhanced inclusive education practice that would equitably propel learners with visual

impairment into social inclusion through inclusive living within their communities.

3.2 Learners with Visual Impairment and Their Experiences in Career Guidance and Counselling

3.2.1 Introduction

Education is a fundamental human right and is the key to sustainable development (World Education Forum, Dakar, 2000). The forum also referred to quality education as the kind that satisfies basic learning needs and enriches the lives of all learners. This implies that any learner-friendly programme which provides information, skills, guidance and counselling should be a necessary inclusion in all educational institutions including those that serve learners with visual impairment. The implication fits well with some of the objectives of the Ministry of Education in Kenya such as:

1. To enhance access, equity and quality at all levels of education and training by 2010.
2. To improve the quality of all aspects of education and training so that recognised and measurable outcomes are achieved, especially in literacy, numeracy and essential life-skills relevant to the world of work by 2015.
3. To ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes by 2015 (Republic of Kenya, 2005a:29).

These sentiments are invoking a lot of research to establish areas of weaknesses that need improvement and those that are not addressed at all so that all Kenyan learners can attain quality education. Among the few research studies already accomplished on learners with visual impairment is ‘an analysis of the guidance and counselling programme for high school learners with visual impairment’ (Irungu, 2008). This study has suggested that the majority of learners who fall in

17-18 years age range find it difficult to discover their self-identity and assert independence or search for goals that will give meaning to their lives (Irungu, 2008:52).

Whereas this is a common phenomenon among all learners in their adolescent period, learners with visual impairment may experience devaluating and derogatory reactions within their social environment because of their blindness, making it more difficult to obtain satisfactory answers to questions such as, “Who am I?; What is the meaning of life?; Where do I belong in the society?; or Can I handle it? (Tuttle & Tuttle, 1996, in Irungu, 2008:53). This call for a comprehensive guidance and counselling process that would aim at developing learners holistically in order to enable them to attain self-identity and independence in making informed decisions.

In addition, among the many functions of the National Council of Persons with Disabilities are; One, to achieve equal opportunities for persons with disabilities, by ensuring to the maximum extent possible that, they obtain education and employment, so that they can participate fully in community and social services. Two, it has the duty of co-ordinating services provided in Kenya for the welfare and rehabilitation of persons with disabilities and also of implementing programmes for vocational guidance and counselling (Persons with Disability Act, 2003:289).

These functions call for advocacy of comprehensive career guidance and counselling for learners with special needs where learners with visual impairment are inclusive. The current experiences of learners with visual impairment at Thika High School level do not spell success. For instance, Irungu, (2008:54) indicates that, despite the fact that there is a guidance and counselling department and a designated office in the school, where students with visual impairment could seek

information and guidance or even counselling, the majority of the learners refrained from voluntarily seeking these services. Some of the excuses the students gave are lack of privacy and confidentiality and fear of facing the teacher-counsellors because they were failing in their subject. Thus, they would rather share their problems amongst themselves. They also cited lack of awareness on the importance of guidance and counselling, such that even the few who have voluntarily sought help from the counsellor have done so only once or twice. Learners with visual impairment also felt that there was overdependence on group guidance and counselling, which was done once a week after lessons. This rarely addressed individual needs that could lead to individual guidance and counselling.

All these concerns suggest that learners with visual impairment are not satisfied with the services they receive during guidance and counselling services. The major issues of concern during the group guidance and counselling revolve around academic achievement, intrapersonal relationships and behavioural problems whereas career guidance and counselling takes a backseat. The scenario portrayed by this analysis does not suggest a tradition of seeking help that could have been established from the primary tier of education. Since this was not within the scope of the study, the current study intends to investigate whether learners with visual impairment in primary schools are themselves satisfied with services at their level or that they are following the same pattern of learning without adequate guidance and counselling. It is worth noting that guidance and counselling in schools is expected to start early in primary schools and the Ministry of Education emphasizes its implementation.

3.2.2 Terminology, Disability and use of Language

Kenya, in keeping with world-wide views in the use of terms, has embarked on seeking disability friendly terms. Issues such as revisiting terms like

“handicapped persons” have been in debate and the current usage aims at looking first and foremost at the human person and letting issues of impairment or disability come after. Initially the term ‘visually impaired learners’ was in use. Currently the correct language suggests use of ‘learners with visual impairment’. The issue of disability is not quite resolved because in Kenya, there is the very much agreed upon slogan ‘Disability is not inability’ yet it is felt that the use of the term ‘person with disability’ is more agreeable than ‘person with a handicap’. The general feeling is that when a person is referred to as being handicapped, the implication is that of incapability thus putting the person in a more disadvantaged position. Other terms that are still being debated about include whether to refer to a learner with mental retardation as intellectually challenged. As much as professionals and stakeholders are concerned about removing the negative connotations in terminology in Special Needs Education, the idea does not in any way desire to cover up the presence of disability or impairment, but rather tries to uphold human dignity without neglecting the service delivery systems that address their human rights.

Disability is a term that emanates from impairment in the sense that any loss or damage to a body organ may have substantial long term effects that will alter the ability of the person concerned to execute day-to-day duties in the manner he or she would have done them without the impairment. In the text, the term is used in sections where learners with visual impairment are regarded inclusively.

Visual impairments, on the other hand, can be classified in different ways, such as referring to a learner as legally blind, blind or low vision. Other classifications will be influenced by additional disabilities such as deaf-blind. The term legally blind is more medical oriented and is determined through clinical measurement of visual acuity and field of vision. A person with a visual acuity of 6/60 or less (meaning, even after medical correction, he can only see standardized reading

materials at 6 meters, whereas a normally seeing person can see the same materials at 60 meters), or a person whose field of vision is 20° or less, is considered to be legally blind. A normally seeing person usually has a field of vision or side vision of 180°. A person with a field of vision of 20° or less sees objects as if they are being viewed through a tunnel and therefore, the term tunnel vision is used. This term has legal implications in its country of origin, that is, the US, but has no legal implications in Kenya and may not be given a lot of weight educationally especially where the learner may be having some residual vision that can be utilized for efficiency. Visual efficiency training is given by low vision teachers (who are usually given in-service training in working with low vision learners) and the learner is often referred to as having severe low vision.

Low vision is a term used to refer to learners with visual impairment who have some residual vision no matter how little. These learners can be classified in a range from moderate visual impairment to severe. The mode of instruction follows printed materials which may be read by use of optical aids or by adapting the environment in terms of light illumination. Non-optical aids are also used as they are able to bring the materials being read to the level of vision. Such aids include reading stands or use of bolded writing with high contrast. Electronic devices such as Closed Circuit Television and computers with assistive applications also enhance educational performance of learners with low vision. These provisions are available in Kenyan schools that cater for learners with visual impairment.

On the other hand, the term blind in Kenyan Special Needs Education is used to refer to only those learners who have no vision. They may have light perception which is useful for mobility purposes, otherwise, learning occurs through use of other modalities other than vision. The main channels of conceptualization are tactile and auditory whereas other modalities such as smell, taste and bodily

kinaesthetic supplement these channels. Special equipment are used to facilitate learning, such as braille machines and braille mathematics sets which are tactual. The equipment are available but not in sufficient amounts to facilitate desired outcomes. However, it is worth noting the fact that even though the learners with blindness would be viewed as the profoundly impaired, they seem to be better understood and better served than learners with low vision even within Special needs education settings.

Finally, a 'special need' refers to a condition or barrier, which hinder normal learning and/or development of an individual. The condition may include disability, social, emotional, health or political difficulties (Ministry of Education, Science and Technology, (2003:xxii). The Warnock Report (1978) came up with this term to differentiate issues that a classroom teacher can handle with concerted effort and come up with some solutions. These issues may call for alterations of learning situations and provision of equipment and resources that are not consistent with the day-to-day operations of the regular classroom. These alterations include adapted curriculum, modification of physical environment or specialist teaching strategies and paying attention to the social structure and emotional climate in which learners are educated.

Special Needs Education (SNE), in this context, then means educational provision which is additional to, or otherwise different from the educational provision generally given to learners in regular schools. This is the type of education which provides appropriate modifications in curricula, teaching methods, educational resources, medium of communication or the learning environment in order to cater for individual differences in learning (Ministry of Education, Science and Technology, (2003:xxii).

There has been inadequate prioritisation of issues on Special Needs Education, despite the fact that, it has been provided in Kenya for almost half a century. Its development has been rather slow as characterized by now and then calls for creation of awareness, advocacy and sensitization. To facilitate faster development, the Kenyan government in its current policy framework is embarking on integrating Special Needs Education in all learning and training institutions so as to ensure their responsiveness to the education of all learners, as well as those with disabilities.

Special Needs Education (SNE) in Kenya has been provided mainly through three service delivery models; namely, special schools, integrated programmes and inclusive schools. The oldest model is the special schools which are residential and serve children with visual impairment in segregated settings.

These schools are scattered across the country. Thika Primary School for the Blind is the oldest of the special schools, located in Central Province since this is where Special Needs Education started back in 1946. These schools are residential and sometimes they may admit learners from any corner of the country as long as it is in line with the parents' preferences. The majority of the special schools for learners with visual impairment are primary institutions with only two secondary schools. The second secondary school is in its initial stage, meaning for a long time only one secondary school (Thika High School for the Blind) has been serving secondary school learners with visual impairment country-wide.

In these schools, the physical environment and educational resources are modified to suit the needs of the specific category of learners being served. As much as this is a positive intervention, the schools segregate learners from the larger community. Even members of the community living within the neighbourhood tend to be ignorant of the kind of services being provided to learners with visual impairment. These learners are also kept away from their

families, peers and communities. The negative effects of learning in special schools, such as not being able to reintegrate within one's community after being away from home for a long time and the international trends towards in the mid 1970s gave rise to integrated programmes in Kenya.

Integration in context meant participation of learners with visual impairment in regular schools with their non-disabled peers without necessarily making changes in the curriculum provision or the learning environment (Kenya Institute of Special Education, 2006). The first integrated programme was established by the Kenya Society for the Blind (KSB) in 1975. Since then several integrated programmes were started with the support of church organisations, Non-governmental organisations and the Kenya Government. The Ministry of Education Science and Technology runs nineteen (19) integrated programmes specifically for learners with visual impairment under the management of Kenya Integrated Educational Programmes (KIEPs).

Integration in Kenya has been practised at three levels, mainly; locational, social and functional (Ministry of Education Science and Technology, 2003:4). Locational integration implies placing learners with visual impairment in a selected regular school, but in a separate classroom where these learners are provided with education according to their special needs. The main aim is to bring the learner closer to home where the parents are able to pick up the learner after school hours are over. These learners do not interact with their sighted peers. Social integration allows some form of interaction within the school compound during break times, where all learners can play together, during music and drama festivals and other social occasions that the school may engage in. However the learners are expected to be provided with education separately as they are regarded as special. The highest form of integration is functional. In this case the learner with visual impairment is put in a regular classroom to learn alongside the

sighted peers and access the same curriculum with necessary support from specially trained teachers of learners with visual impairment. These teachers work hand in hand with regular classroom teachers as consultants and also ensure that the required resources are availed to the classroom teacher. After all these efforts of integration, it was realized that they were not achieving the intended goals. Several reasons were cited which include:

First, regular schools were not prepared both physically and socially for this set of learners who were meant to fit their programmes. An example of such school was Moi Girls High school Nairobi which was abruptly requested to admit learners with visual impairment (girls) without prior preparation. Second, teachers did not know what to do with learners with visual impairment in their care. Likewise, non-disabled learners in the integrated schools were not prepared to receive these learners and therefore, their reaction was to view them as misplaced.

In addition, parents of learners without disabilities were not sensitized on the need of integration and thus they thought that these learners would lower the standard of education for their children. Worse still, such parents thought disability is contagious and thus, felt their children were at risk of becoming disabled too. All these issues were overlooked since integration attempted to modify the learner with disability to fit an ordinary school instead of modifying the environment to fit the learner (Ministry of Education, Science and Technology, 2003:5). The realization that integration was still not addressing the needs of learners with disabilities and the current world-wide trend on the call for inclusion has implored professionals, stakeholders and the government to look into mechanisms of embracing and implementing inclusive education.

Inclusion is defined as “the act of including,” that is, “to contain, embrace, or comprise, as a whole does parts.” (Webster’s New Unbridged Universal Dictionary 1994). The Division of Early Childhood of the Council for

Exceptional Children (1993) defines inclusion as “. . . a value [that] supports the right of all children regardless of their diverse abilities to participate actively in natural settings in their community.” Allen and Schwartz (2001) also state that Inclusion is not a set of strategies or a placement issue. It is about belonging to a community—a group of friends, a school community, or a neighborhood (Allen & Schwartz, 2001: 4). These definitions avoid mentioning children with disabilities or special education. Probably the reason for this omission is based on the realization that inclusion is not a special education issue—it is an issue about the effective education of all children. It is important to reconsider our definition of inclusion because the way teachers, parents, administrators, and other consumers define inclusion affects its outcomes for all learners.

Another reason for examining the definition of inclusion is to involve more stakeholders in the inclusive education awareness. Although inclusion is a common topic among special educators and some parents of children with disabilities, it is less likely to be discussed by general education teachers. Likewise, many parents of children without disabilities may be not aware of the term “inclusion” as relevant to their children’s education. For inclusive education to achieve its potential, awareness about inclusive school practices must be disseminated among entire schools, districts, and communities. The planning, implementation and evaluation of inclusive school practices must also become inclusive, involving all members of the school community.

Furthermore (Schwartz, Staub, Gallucci, & Peck, 1995) argue that one component of inclusive school practices that requires special attention is learners’ outcomes. The discussion of outcomes is especially important in the efforts of broadening the practices to involve general education teachers and typically developing learners. General education and special education have always differed on how they discuss learner outcomes. In special education, the discussion and

measurement of outcomes has been focused at the level of individual learners, while the achievement of general education learners is most often described as the number of learners meeting a specified curricular goal. Many educators, parents, and policymakers are dissatisfied with outcomes for all learners and redefining learners' outcomes in our current situation remains an important issue if provision of quality education is envisaged.

However, in Kenya, inclusive schools are defined as 'those that are designed to respond to the diverse needs of all learners, accommodate both different styles and rates of learning and ensure quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnership with communities' (KISE, 2006:29). There are several schools currently in a pilot programme to ensure that the implementation of inclusive education will not repeat the same mistakes that were made during the implementation of integration. The current policy framework has set the following strategies to address issues of inclusive education:

1. The ministry of Education has embarked on designing and implementing programmes that enhance inclusive education in all institutions and is also strengthening institutions that are supporting special needs education such as Kenya Institute of Special Education (KISE);
2. It is likewise, supporting KISE programmes which offer continuous professional teacher development on Special Needs Education (SNE) As well as encouraging research in the field of SNE and inclusive education
3. The ministry is open to flexible curriculum strategies which are responsive to learners with disabilities and aids in development of learning materials to support the curriculum, strengthening the capacity of ministry and schools to ensure effective management and implementation of the curriculum in order to meet the needs of all learners (Republic of Kenya, 2005b:39).

In conclusion, inclusive education is being viewed as beneficial in the sense that, if it is carefully implemented, it has the capacity to extend appropriate education to all. Inclusive education practice is concerned with ensuring that learners with disabilities are educated in the Least Restrictive Environment (LRE). It also hopes to increase community awareness of SNE and eliminate the stigma often attached to learners with disabilities. Inclusive education will also help in the development of positive attitudes in parents, peers and the community at large as well as promoting social development through interaction of learners with and without disabilities. Such interaction enables all learners to develop virtues, such as accommodation, acceptance, cooperation, patience, humbleness and the need to be supportive. Inclusive education is also viewed to be cost effective. Since it has always proved too expensive to run two parallel systems of regular and special education, restructuring the regular education system would reduce the cost and the need for extensive expansion of special education programmes. The already available resources would be shared by all learners (Ministry of Education Science and Technology, 2003:7-8).

3.3 Factors that May Hinder Learners with Visual Impairment from Developing their Vocational Self-Concept and Decision-making Self-Efficacy

3.3.1 Intrinsic Factors

These are factors that emanate from the learners perceptions of their relationships to the environment. Environment comprises parents, siblings, teachers and peers as well as objects that would enhance their skills in the world of work.

First, the presence of disability as a result of visual impairment, whether congenital or adventitious can create developmental delays due to restricted range and variety of experiences and also the fact that an adventitious disability disrupts

development resulting to developmental delays as well. These pose limits in what the learner with a disability can do in comparison to non-disabled peers of the same age. Hence, for learners with visual impairment, having profound visual loss, or impaired vision, makes it difficult for them to learn incidentally about work roles, the types of jobs available, what tasks are inherent in different jobs, and what work behaviours are expected of employees (Wolffe, 1999:13). Furthermore, the severity of the disability poses greater limitations than mild or moderate disability. For instance, Githang'a (2007:42) in her exploratory case study of vocational aspirations of upper primary school learners with visual impairment suggests that, there are certain occupations that were beyond the aspirations of learners with total blindness such as becoming a doctor or being a pilot. These occupations were listed among what they would indicate as their most aspirations. None of the learners with total blindness indicated aspirations in these occupations. This implies perceived limitation posed by disability.

Another factor that can hinder learners with visual impairment from developing adequate vocational self-concept and decision-making self-efficacy is mistrust in significant persons in their environment. Significant persons often comprise teachers, parents and peers both with and without visual impairment. Irungu (2008:54) reveals that the majority of high school learners with visual impairment were not keen on seeking guidance and counselling from their teachers due to lack of privacy and confidentiality. The learners feared to be ashamed by being exposed when they express their problems and fears to teachers and adults they live with. This implies a need to build confidence and trust of these learners.

Poor and unguided academic achievement is another factor that can seriously hamper learners' global self-concept, hence, impeding further exploration of other aspects of self-concept such as vocational self-concept. When learners fail to achieve satisfactory academic performance, they may feel less motivated to

explore their role in the society or what they would like to be because their academic self-concept is already eroded. In a country like Kenya, where academic achievement through passing exams is so highly exalted, those learners who may feel they are not meeting the societal expectations may lose heart before they establish their vocational self-concept and decision-making self-efficacy.

In addition, if learners are not guided to link their academic subjects to their preferred occupations, they are likely to concentrate on subjects that may land them in occupations they may not be interested in. Learners with visual impairment have also experienced continued failure in some subjects such as Mathematics yet they are core for selection in many highly regarded occupations.

3.3.2 Extrinsic Factors

The extrinsic factors discussed below are the researcher's interaction with the learners with visual impairment that has generated some experiential background that is consistent with the information given in this section. External factors are those perceived forces that are external to the learners yet they may have a lot of impact in inhibiting adequate development of their vocational self-concept and decision-making self-efficacy. For instance, learners with visual impairment who may have come from family backgrounds that do not fully accept disability, may experience negative self-image due to negative comments they may have heard from parents, siblings or peers. Some parents express disguised rejection of their children with disability through excessive overprotection that denies the child any chance of developing independence or self-confidence which are crucial for the development of vocational self-concept and decision-making self-efficacy.

Inflexible curriculum is another major barrier to appropriate implementation of learning experiences for learners with visual impairment. The current policy framework recognises the shortcomings of the curriculum in use especially when adopted for use with learners with disabilities. The Ministry of Education has

declared that it will complete the on-going curriculum review process and implement an appropriate and flexible curriculum for learners with disabilities. It also intends to promote functional skills development for youth and adults with disabilities. Learners with visual impairment are part and parcel of the targeted population. Mechanisms are also being employed for flexible delivery of curriculum to cater for children with special talents and abilities especially learners who are gifted and talented. These efforts can only take off if all stakeholders assume ownership of these policies and play their part in their implementation. Professionals and all other stakeholders need to understand their roles in helping the government achieve its objectives.

Other than the inflexible curriculum, inadequate resources, both human and material, compound the educational provision of learners with visual impairment. Teaching and learning materials are often inadequate and teaching staff recruitment in Kenyan schools is often faced with shortages due to frequent transfer of teachers and not recruiting enough numbers of staff. This leads to teaching overload that denies teachers time for other extra-curricular duties that they need to engage in. The teacher counsellors are usually not spared and this means that their highest priority tends to be teaching over counselling. The teacher counsellor may also find it hard to establish adequate teams for guidance and counselling committee, since the teachers may feel that they do not have time for extra duties. This may hinder the progress of the guidance and counselling programme tailored as a developmental process, even though the same teachers realise the need for the programme and a career counsellor in the institution.

Other resources that may affect the effectiveness of the programme would include lack of a well situated office that would ensure privacy and confidentiality, ambience in the guidance and counselling office and reading materials that would create an atmosphere of authority. Due to shortage of teaching staff, there is often

lack of support from the administration, especially where there may be a demand for reduction of the teacher counsellor's work load to enable him or her to have enough time to read, gather relevant information for guidance and counselling and network with other professionals.

Teacher counsellors are in a unique position to influence positive development of learners' personality in the process of guidance and counselling. They act as the steering wheel in the institution by co-ordinating the affairs of learners with peers and the administration. The teacher counsellor therefore, has various functions which include; appointing a working committee to help him or her develop a comprehensive guidance and counselling programme, identifying the guidance and counselling needs of learners. The counsellor also has the mandate of organizing staff meetings where guidance and counselling duties and activities are shared so that all learners are reached and their needs addressed. Finally, he or she must have the ability or skills of establishing networks and referral systems with other stakeholders such as parents, community mentors, professionals who should act as role models for learners and transitional agencies. This is notwithstanding the ability to solicit required resources to enable the programme to function efficiently, implementing the guidance and counselling process.

The above functions demand adequate training and skills of working both with colleagues and learners in need. The government through the Ministry of Education, is aware of the need to revitalize training and even , insist that each school in Kenya should have one teacher who has undergone training in guidance and counselling. The teacher should be deployed to the school through the recruiting agency namely, the Teachers Service Commission (TSC). The major issue in many schools is that there may be none of the teachers who qualify to be teacher counsellors. Most school principals, however, do appoint teachers who may be seen to be more sensitive to issues and needs of learners. Despite the

goodwill that such teachers may have, the fact will still remain that they will not have adequate skills for effective implementation of the guidance and counselling process. The tendency of implementing guidance and counselling as treatment programmes rather than a development processes is more likely in such situations.

In relation to the above, Irungu (2008:56) argues that the guidance and counselling programme for learners with visual impairment at the high school rely heavily on referrals from members of staff, who seek the intervention of the teacher counsellor. In such a situation the counsellor is playing the role of one who treats rather than one who guides and counsels.

In addition, there is lack of involvement of parents in their educational development. Parents of learners with disabilities in Kenya are not empowered and facilitated to participate fully in lobbying for the rights of their children (Ministry of Education, Science and Technology, 2003:68). There are however, emerging parent groups that have started agitating for the rights of their children. Such groups include; parents of children with Autism, parents of children who are deaf-blind, parents of children with hearing impairment and parents of children with mental impairment. So far there has been no active participation of parents of children with visual impairment. It is however, a ministry of education directive that every Kenyan school should have a Parent-Teachers Association (PTA). These associations have not facilitated the impact envisaged during their inception. However, if strengthened, they can offer fundamental support to all learners including learners with visual impairment.

Learners with visual impairment lack exposure to role models with visual impairment who can give them aspiration to search for their vocational self-concept. As expressed earlier disability is a minority occurrence. The few role models who have excelled are few and far between and not exposed adequately to

learners with visual impairment. The majority of adult persons with visual impairment have given negative feedback of unemployment and begging. Furthermore, learners with visual impairment lack non-disabled role models who would act as mentors in areas that they are capable of excelling. This results from lack of community involvement in the education of learners with visual impairment, especially those within the neighbourhood of their learning institutions.

To counteract all these external factors that may have negatively impacted on the education of learners with visual impairment, there has been calls for clear policy formulation to cater for educational needs of learners with disabilities dating back to the 1960s soon after Kenya gained independence from colonial rule. Tororei (1984) describes the government of Kenya as the main power in making policy decisions. He calls on the government to invite the non-governmental organisations serving learners with visual impairment to serve on its policy since the government is the final arbiter in policy and non-governmental organisations cannot supersede government policy. He urges the government to recognize the responsibility over the formulation of education policies for all citizens including the education of learners with visual impairment.

The Persons with Disabilities Act (2003) is the culmination of countywide calls from professionals working with persons with disabilities and associations of persons with disabilities in an effort to ensure that both learners and adults with disabilities enjoy their human rights. As a piece of legislation, the Act stipulates that no person or learning institution shall deny admission to a person with disability to any course of study by reason only of disability, if the person has the ability to acquire substantial learning in that course. Despite the noble development of having a piece of legislation that is addressing disability issues,

its impact is yet to be felt, part of the reasons being lack of funding and empowerment.

Poverty reduction has been a key concern of governments globally. During the UN Millennium Development Summit in September 2000, the first two goals to be endorsed were, first, eradicating extreme poverty and hunger and, second, achieving Universal Primary Education (UPE). It was emphatically noted that these goals would never be achieved, unless learners with disabilities and adults are specifically targeted having been cited to constitute the poorest of the poor (Stubbs, 2002:13). To address these goals, the Kenya Government started providing Free Primary Education (FPE) in January 2003. This was an attempt to address the limited progress that had been made since September 2000, towards the attainment of universal primary education. The provision witnessed an influx of children with disabilities who had initially remained home due to poverty, who rushed to both special schools and regular schools for enrolment. The children later dropped out of these schools because the situations on the ground were not conducive for them. For instance, those who tried special schools which are basically residential were required to pay boarding fees which they could not afford. Those who tried regular schools were confounded by barriers since the schools were not barrier free. They were also ill-equipped with learning and teaching resources as well as human resources.

The government therefore, came to realize that the goals of Free Primary Education (FPE) and achieving Education For All (EFA) was not going to be an easy task. Poverty, socio-cultural and environmental barriers were cited as the main setbacks of the FPE aspirations (MoEST, 2003:3). Through the Sessional Paper No. 1 (2005), the government established the Kenya Education Sector Support Programme (KESSP). The current efforts of Kenya Education Sector

Support Programme (KESSP) 2005-2010 hopes to pave way for more improved provision of education (Republic of Kenya, 2005a:29).

3.4 Role of Organisations Of and For Persons with Visual Impairment

The Kenya Society for the Blind (KSB) was the first charitable organisation to be established for persons with disabilities in 1956, by Act of Parliament, Cap 251 of the laws of Kenya. The main aim of the organisation was to create awareness about needs of persons with visual impairment and advocate for education and rehabilitation of learners with visual impairment. It was also concerned with prevention and treatment of eye infections to reduce blindness in Kenya. To achieve this initiative, KSB partners with international non-governmental organisations, the Kenya Government and the community. Its programmes are able to penetrate the rural areas as well as the marginalized remote area that are most vulnerable to blinding conditions such as trachoma.

The organisation among the many activities it has accomplished is credited for starting the first integrated programme for learners with visual impairment. The society works hand in hand with the Kenya Union of the Blind (KUB) to create a conducive environment for empowerment of persons with visual impairment. It promotes their welfare, training, education and employment, so that persons with visual impairment may become self-reliant.

The Kenya Union of the Blind was registered in 1960, by blind persons under the Societies' Act as a platform to articulate their needs and aspirations to the authorities and the society at large. Ever since, KUB has grown to establish itself as the national organization of persons with visual impairment, with district-based branches all over the country. Being a membership organization, KUB is steered by persons with visual impairment themselves, in both governance and programme structures starting at the community level.

The vision of KUB is to try as much as possible to advocate for a barrier-free society where persons with visual impairments enjoy full and equal participations in all aspects of human life. Its mission is “to promote social inclusion of persons with visual impairments through uniting and empowering themselves as well as advocating for their rights” (KUB, 1960).

The programmes the KUB engage in, include; advocacy and representation, personal empowerment and organizational development. KUB works with a number of partners to implement several of its programmes. Some of these partners include, Sight Savers International (SSI), which is a UK based charity which combats blindness in developing countries and restores sight to the needlessly blinded persons. SSI and KUB work together to facilitate advocacy, representation, and training in Assistive Technology as well as providing assistive devices and materials to persons with visual impairment.

KUB also works with Institutional Development Programme (IDP), which assist in Community-Based Advocacy, management, capacity and youth development. Stephen Lewis Foundation likewise, assists KUB in facilitating child support, child education and HIV/AIDS programme. Computer Aid International, is another partner that is currently supplying KUB with adapted software and refurbished hardware for use with persons with visual impairment to enable them access information through Assistive Technology.

KUB is also an affiliate organisation of African Union of the Blind (AUB), which supports it in the enhancement of Disability Rights promotion, civic education and youth development. Voluntary Services Overseas, finally, assist KUB in resource mobilization, and publicity staff capacity development (Kieti, M., 2008. August 5th. citation from, Chief Executive officer, KUB).

Kenya Union of the Blind has started a programme where they place fresh graduates with visual impairment in sensitised corporate bodies for a period of six months. KUB pays out a monthly allowance during the entire probation period. After the six months, KUB requests for an assessment of the performance of the person by the employer. KUB facilitates the person with visual impairment with necessary assistive technology during this time, trains the persons to ensure that they are fully equipped to work. Safaricom Mobile Phone Company (Kenya) has to date recruited 6 persons with visual impairments through this process.

3.5 The role of Non-governmental Organisations in Support of Learners with Visual Impairment in Kenya

The non-governmental organizations have played a very big role in the provision of education in Kenya, through adaptations and modification of the regular education curriculum to suit learners with visual impairment. After completion of school, the non-governmental organizations have given follow-up supports to ensure that the lives of persons with disabilities is not miserable through provision of support services and advocacy to the government and the society at large for recognition of persons' with disabilities human rights.

3.5.1 Sight Savers International (SSI)

Sight Savers International (SSI) is greatly concerned with the employment of persons with disabilities. This concern has emanated from the realization that persons with disabilities have continued to be marginalized and denied decent livelihoods as access to the world of employment still remains a challenge. Although there are various instruments that attempt to address this situation among others Sessional Paper No. 1 of 2005 which provides for affirmative action in favour of persons with disabilities, this is yet to be realized. There are various factors contributing to this situation among others:

1. Recruitment processes that are not responsive to the needs of people with disabilities. For instance, since the introduction of the district- based recruitment of teachers, only 3 out of over 70 qualified teachers with a visual impairment have successfully gone through the interviews. Others such as those who are deaf are not even allowed to have sign interpreters during the interview.
2. Saturated market of the available skills is a major hurdle, since some of the disabilities like visual impairment have very limited career choices due to the subjects they are able to pursue. For instance, over 80% of the visually impaired professionals are either teachers or lawyers. Those who have become teachers predominantly teach art subjects. This makes it a great challenge when matching their skills to what the market needs.
3. Accessibility to Assistive Technology, in this era of advanced ICT is crucial for several disability groups like persons with visual impairment and those with hearing impairments. To be able to be in pace with their non-disabled counterparts, ICT need to be universally developed. So far, assistive technology has bridged the gap left by lack of universal ICT. However, the software that have been available are costly making it inaccessible to many. Employers are also not willing to invest ICT software because of their prohibitive expenses. These include software such as the Jaws or Dolphin programmes which help persons with visual impairment in screen-reading through speech and magnification for those who can use sight to read.
4. Attitude and lack of awareness among potential employers about the potential productivity of persons with disabilities is another barrier to employment. Most employers often underrate the capabilities of persons with disabilities and view them as potential liabilities to their organisations. In response to the above challenges and to create room for increased transition to the world of work for people with disabilities, SSI

and other partners have mounted advocacy, on the rights of persons with disabilities to the government. For instance, SSI has engaged the government and TSC specifically, in relation to recruitment of teachers. The objective of this effort has been two fold, first to have as many teachers with disabilities as possible employed in the on-going recruitment processes. The other objective is to have an affirmative provision for the teachers so that this happens automatically.

5. Finally, SSI has already started a pilot project aimed at enhancing accessibility of ICT technology with a view to promoting accessibility of education materials, so as to enhance academic performance and transition to employment. It has also envisaged that this could enable learners to diversify and undertake different subjects that could make them more marketable. KUB is, on the other hand, using the same initiatives to facilitate those already in employment to enhance their productivity as this could be vital in changing attitudes of potential employers (Thuo, N., 2008, Thursday, August 7th. Citation from the country director SSI).

3.5.2 Christoffel Blinden Mission (CBM)

Christoffel Blinden Mission (CBM) is an international disability and development organization whose purpose is to improve the quality of life of the poorest persons with disabilities and those at risk of disability. CBM was founded in 1908 by Ernst Christoffel, who because of his Christian compassion, worked to care for the needs of children with disability.

In Kenya, CBM strives to achieve their purpose through prevention and treatment of diseases which lead to impairment. They also improve access to education and rehabilitation services and advocate for the rights of persons with disability to full inclusion in all aspects of life.

Through its partner organizations such as Kenya Society for the Blind (KSB), CBM assists more than 100,000 children with disabilities. It has assisted learners with visual impairment through provision of teaching and learning aids, optical and non-optical aids to low vision learners, treatment of eye diseases, improvement of inclusive education and Special Needs Education to help them improve their future opportunities. CBM has also facilitated performing of over 600 sight restoring operations annually. It is a crucial partner in all matters concerning the welfare of learners with disabilities who would be willing to offer assistance to programmes that would aim at improving life chances for learners with visual impairment. This implies that it would be willing to assist in establishing comprehensive career guidance and counselling that would facilitate the development of vocational self-concept and decision-making self-efficacy (Daily Nation, Monday July 28, 2008).

3.5.3 Africa Braille Centre - Kenya (ABC- Kenya)

Africa Braille Centre is another organisation that has supported the education of learners with visual impairment through provision of braille materials such as braille paper, braille machines, writing kits and any other equipment that may prove useful for the enhancement of education for learners with visual impairment. One very important duty that ABC has taken seriously is transcribing print course books into braille so that learners who are totally blind are able to access the National curriculum materials. ABC collaborates with Kenya Institute of Education (KIE), which is the institution that prepares curriculum for all learners except those in universities. KIE has a Special Needs Education division that is responsible for conducting research on ways of adapting the National curriculum for the benefit of learners with visual impairment. This collaboration aims at ensuring that learners with visual impairment access education as equitably as possible.

In conclusion, even though transition from school has not been very successful over a long period of time. Learners with visual impairment have a very strong support system that if well-coordinated, is capable of enhancing their life chances. As noted earlier by Thuo (2008), it appears like learners with visual impairment are leaving school with a very narrow focus on possible occupations. Their academic performance also propels them to only accomplish tasks that are art oriented. There is a need for baseline data that might explain how learners with visual impairment may expand their world of work opportunities. Exploring their career exploration and decision-making would enable the researcher to unearth how learners with visual impairment clarify career and life aspirations and values. The researcher will then try to establish how these learners develop self-knowledge of their skills, abilities, aptitudes and interests. It would be of interest to the researcher to discover whether learners with visual impairment understand the barriers to their participation in work career and whether they obtain knowledge of occupations and labour market. Finally, the study explores how they make choices based on the information they have.

3.6 Summary

This chapter describes the learners with visual impairment in their current school settings. The guidance and counselling practice in Kenya is the main focus of this chapter because it has the capacity of helping all learners develop appropriate personality patterns that would facilitate them become productive members of their communities. Various shortcomings have been reviewed as they have been recognized by the Kenya Government and have challenged the government on how best Totally Integrated Quality Education can be provided to all learners including those with disabilities. The Kenya Education Sector Support Programme, commissioned by Sessional Paper No. 1 (2005) needs research supported data that would enable it to improve provision of education for all

learners. To ensure that learners with visual impairment are not left behind, a lot of research is needed to articulate their unmet needs.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter described the research design and methodology used to address the stated research questions. It specifically focused on research design, hypotheses, research procedures and strategies, context of the research (location of the study), the target population, sampling and motivation for exploratory pilot, followed by actual data collection procedures through various research instruments, as well as data analysis methodology.

4.2 Research Design

A mixed model research design which included both quantitative and qualitative components was decided upon in the study to best address the research objectives stated. The qualitative approach intended to assess the vocational self-concept and decision-making self-efficacy while the quantitative component served the purpose of obtaining feedback on already established vocational self-concept and decision making self-efficacy. The quantitative approach served a comparative purpose of assessing vocational self-concept and decision-making self-efficacy, in terms of high and low, among the learners with visual impairment, while the qualitative component (which consist of interviews), provided in-depth information on established vocational self-concept and decision-making efficacy.

The design embraced an Ex post facto approach, which intended to examine the relationship between vocational self-concept as the independent variable and decision-making self-efficacy as the dependent variable among learners with visual impairment in their natural settings. An ex post facto research is a ‘systematic, empirical inquiry in which the researcher does not have direct control of the independent variables because their manifestations have already occurred’.

This design allows the researcher to express the degree of relationships among variables. The design not only permits the researcher to study the direction of the relationships but also its strength (Orodho, 2004:51). The use of a mixed method research was selected to guide the research towards an advocacy and participatory position. The position helps the researcher to construct a picture of the issues being examined, the persons to be studied and the changes that are needed. Advocacy research provides a voice for these participants, raising their consciousness or advancing an agenda for change to improve their lives. It becomes a united voice for reform and change. It is emancipatory because it helps unshackle people from constraints of irrational and unjust structures that limit self-development and self-determination (Creswell,2009:9-10).

4.3 Area of Study

The location of the study was Central and Nairobi provinces in Kenya. Thika District is within Central Province. Nairobi, other than being the capital city of Kenya is a province in its own right. The two provinces border each other and the study was conducted within 50 sq. km. The area was selected because it has several programmes for learners with visual impairment and thus has the highest concentration of learners with a visual impairment. It was also easily accessible to the researcher.

4.4 Target Population

The target population were learners with visual impairment. These learners were drawn from three levels of education in order to assess their progression in the development of vocational self-concept and decision-making self-efficacy. The first level consisted of primary schools. In this level, Thika Primary School for the Blind (a residential institution) and Kilimani Integrated Programme (which comprised three non-residential primary schools within the city namely, Kilimani Primary, Muthaiga Primary and Our Lady of Mercy, Shauri Moyo Primary) were

used. The second level comprised of Thika High School for the Blind (a residential school) and Moi Girls High school Nairobi (a residential integrated programme). The third level consisted of Industrial Rehabilitation Centre for the visually impaired persons and Kenyatta University. Learners at this level are already enrolled for vocational training and are therefore, preparing themselves for their future vocations.

These levels were expected to enable the researcher to find out the progression of the development of vocational self-concept and decision-making self-efficacy among learners with visual impairment at different transitional levels. The learners in Industrial Rehabilitation Centre and Kenyatta University were included in the study to explore how far they have been involved in the choice of careers they are training in and how they relate the courses they are training for to themselves. Thus, the researcher intended to explore their established vocational self-concept and decision-making self-efficacy. These learners were selected in their first year of study.

Table 4.1: Population Distribution

INSTITUTION	CLASS	MALE		FEMALE		TOTAL
		T.B	L.V	T.B	L.V	
Thika Primary school for the Blind	Six	6	10	7	5	28
	seven	8	8	6	4	26
Kilimani Integrated Programme (primary)	six	0	2	1	2	5
	seven	2		1	1	4
Thika High school for the Blind	Form 2	20	19	6	17	62
	Form 3	15	13	13	10	51
Moi Girls High School	Form 2			1		1
	Form 3			1		1
Industrial Rehabilitation Centre	Year 1	1		3		4
Kenyatta University	Year 1	6	1	3	2	12
TOTAL		58	53	42	41	194

KEY: TB- Total blindness.

LV- Low vision

4.4.1 Sampling

Purposive sampling is often preferred in situations where the selected cases are likely to be ‘information-rich’ (Robson, 1993). The study therefore, used a purposive sample selected from the fore mentioned institutions that serve learners with visual impairment. The target sample included both male and female learners from selected classes. At the primary level, learners in standard six and seven were used in the study. Learners in forms two and three were selected at high school level. Learners in their first year of study were selected in both Industrial Rehabilitation Centre and Kenyatta University. Subjects from the selected classes were used as they are, without further random sampling due to their limited numbers. These learners constituted a sample of 194 subjects.

4.5 Research Instruments

Two standardized tools were used in this study to assess the development of vocational self-concept and decision-making self-efficacy. These tools are:

1. Vocational Decision-making Interview (VDMI-R) by Czerlinsky and Chandler (1993) – Specifically designed to test vocational decision-making among persons with disabilities.
2. Career Decision Making Self-efficacy Scale (CDMSE-SF) by Betz, Klein, & Taylor (1996) - which has been successfully used with persons with disabilities in the United States.

These two instruments were piloted in order to establish their applicability to learners with visual impairment in Kenya.

These tools are designed to assess career indecision with marked success to provide adequate information that allows the researcher to weigh vocational

choices based on occupational knowledge and self-knowledge. Specifically, the VDMI identifies both positive and negative thoughts making it a useful counselling tool. The tool has three sub-scales namely, decision-making readiness, employment readiness and self-appraisal that addresses attitudes and abilities that an individual may improve or change through appropriate intervention. ElHessen (2002:5), after using Career Decision-Making Self-efficacy scale (CDMSE) with learners with physical disabilities described the tool as a significant predictor of career exploration behaviours. She further asserted that the scale might be described as a new paradigm to career counselling for self-efficacy and career choice among students with physical disabilities in secondary and post-secondary education.

4.5.1 Criterion-related and Construct Validity of VDMI Scale

Czerlinsky and Chandler, (1999) reporting on criterion validity, indicate that the three subscales of self-appraisal, decision-making readiness and employment readiness are able to discriminate different levels of decision-making capacity. This implies that the interpretation of VDMI scores have valid indicators of vocational decision-making strengths and weaknesses of individuals with disabilities (Czerlinsky & Chandler, 1991). An additional testing showed that the VDMI is sensitive to treatment interventions directed toward the realm of vocational decision-making. Clients with disabilities exposed to VDMI through interviews show significant mean increases at post-evaluation (Czerlinsky and Chandler, 1991).

4.5.2 Internal Consistency Analysis

Internal consistency analyses for internal reliability have shown that the three VDMI subscales evidence satisfactory internal consistency (Czerlinsky & Chandler, 1992). In terms of test-retest reliability, with one week test-retest, Czerlinsky and Chandler (1992) report that the VDMI scale scores remain

significantly stable overtime with coefficients (Pearson r_s) ranging from .62 to .80. Furthermore, when the tool was used with a sample of learners from several special education settings, the VDMI was administered at test-retest intervals ranging from two weeks to a full school year with no drop in reliability as the test-retest interval increased. The reliability coefficients ranged from .55 to .87 (Czerlinsky & Chandler, 1992; Jenson & Pell, 1987). Finally, the norms of the scale are inclusive of a diverse sample of individuals with disabilities. The sample included individuals with physical and sensory disabilities among all other disabilities. This diversity enhances the VDMI to make it much more useful to and representative of a broad range of individuals with disabilities. Hence, its current intended use with learners with visual impairment.

These instruments validity and reliability have been tested outside Kenya. The researcher therefore tried to establish their applicability to learners with visual impairment in Kenya during the pilot study. Logical modifications were made to ascertain that the subjects were not in any way disadvantaged.

4.5.3 Criterion-related and Construct Validity of CDMSE Scale

Conclusions regarding the validity of the construct and measures of career decision-making self-efficacy depend on research showing its relationships to other variables related to educational and career attitudes and progress. In particular, the CDMSE ability to assess career indecision and related attitudes, career exploration behaviours, and the degree of progress toward appropriate educational and career goals. In this regard, there is solid and varied evidence for validity of the CDMSE in the nature of criterion variables examined (Betz & Taylor, 2001). A significant relationship between career decision-making self-efficacy and career indecision has been revealed in several research (ElHessen, 2002; Betz & Luzzo, 1996; Bergeron & Romano, 1994; Merwin, 1993; Schoon, 1991; Taylor & Popma, 1990).

ElHessen (2002) after conducting her study using CDMSE-(short form) with learners with disabilities suggests that the tool is a significant predictor of career exploration behaviours and is also able to discriminate significant mean differences among age groups and career exploration behaviours. Hackett (1991) also suggests that, due to the absence of a general measure, useful under a variety of circumstances, the CDMSE scale along with relevant questionnaires can be used as assessment tools to increase awareness and discussions between career counsellors and their clients.

4.5.4 Internal Consistency Reliability

The internal consistency reliability of the CDMSE-short form ranged from .73 (self-appraisal) to .83 (goal selection) for the 5-item sub-scales and .94 for the 25-item total score (Betz et al., 1996). This indicates a high reliability. Furthermore, there is evidence that the five-level continuum of No confidence; Little confidence; Moderate confidence; Much confidence and Complete confidence provides comparable reliable assessment in comparison to a ten-level continuum with the total 25-item alpha at .95 in both cases. The alphas were however, somewhat higher when the five-level continuum was used. The test-retest reliability reported a six week test-retest coefficient of .83 for the CDMSE total score.

4.6 Pilot Study

A pilot study was conducted to pre-test the instruments in order to ascertain their reliability and validity in a Kenyan setting. This was done after some prior modifications were done that necessitated a test of internal consistency and also do further adaptations if needed. The pilot study was conducted in the same institutions as the main study using a parallel sample to prevent contamination error. An item by item analysis was carried out to test internal consistency as well

as item comprehension and any adaptation necessary to make the tools suitable for learners in a Kenyan environment. The learners involved in the pilot study were not used in the main study and were requested to adhere to confidentiality in relation to their participation in the study.

The pilot study comprised 10% of the population that formulated a sub-sample of 20 participants. These participants were stratified according to gender, level of education and impairment as follows:

Ten participants, five females and five males were selected from primary school amongst them five were totally blind and five low-vision participants. All ten participants were selected from a residential primary school in Thika. Learners from Kilimani integrated programme were left out because of their small number. They were spared for participation in the main study. Six participants were then selected from Thika High School for the Blind. No participants were selected from Moi Girls as the number could not allow any selection for the pilot study. Four participants were selected from Kenyatta University. Gender and impairment type were considered as explained above. The reason why more participants were selected at primary level was to ascertain more clearly the item comprehension level.

4.6.1 Data Collection Procedures

Data were collected in the four primary schools serving learners with visual impairment, one high school for learners with visual impairment, one integrated secondary school, one rehabilitation centre and Kenyatta University. The researcher was assisted by four trained research assistants. The mode of data collection involved individual administration of CDMSE questionnaire and interview schedule which was conducted individually. Both instruments were prepared in print and braille thus learners with a visual impairment were able to use their preferred medium of communication to respond to the items presented to

them. The administration time varied from 40 minutes to 60 minutes. Most braille readers spent 50-60 minutes responding to CDMSE since they had to write down their responses in braille.

4.6.2 Types of Questions

The VDMI had open-ended questions that required content responses. The responses were however, scored providing two diverse types of data. The open-ended questions gave concise information that gave broad insights into decision-making strengths and weaknesses in an individual, while scoring the responses allowed the researcher to compare patterns of scores of the interviewee with normative data. The questions were distributed into five sub-scales namely, occupational knowledge problems (11 items), decision-making problems, based on occupational information (6 items), environmental problems (11 items), self-knowledge problems (14) and decision-making to facilitate choice of a career (9 items). Three summary questions were included to enable the researcher to gain additional information vital for the development of a remedial or treatment plan. These questions are not meant for scoring, but for clarifying the overall experience with a respondent. Hence, they were not included in the initial scoring.

Type of questions:

Occupational knowledge

1. Are there any jobs you have been thinking about getting?
2. How much education or training is needed for the jobs you are thinking about?

Decision-making based on occupational information

1. What person or persons would you ask for more information about jobs?
2. If you were offered two jobs, how would you decide which one to take?

Environmental

1. Does it seem like you have too few job choices because it is hard for you to get about?

2. Would you move to a different place to get a job if you had to?

Self-knowledge

1. What interests – things you like to do- would help you decide on a job?
2. What abilities do you have that would help you decide on a job?

Decision-making in relation to job choice

1. Does thinking about job choice make you upset?
2. Which is better: to just let things happen or to try to make a job choice?

The Vocational Decision-Making Interview (VDMI) comprised fifty-one structured questions in a two-point Likert Scale reflecting how sure or unsure they were of the responses. Respondents were required to answer questions, were given a chance to ask for clarification where they were not sure and even elaborate their answers where the researcher, felt the need to. Since the questions were open-ended, the respondents had a chance to express themselves fully. The score ranged from 0-1 where 0 corresponded to lack of satisfactory response and 1 to satisfactory response.

Respondents were interviewed by the researcher with the help of the trained research assistants. The interviewers keenly probed the respondents using the items in the scale and gave a score along the continuum indicated above. The manual instructions were studied to aid in objective scoring. Any useful information relating to respondent's self-concept or decision-making that emanated from the interview was recorded in observation notes column to facilitate qualitative data analysis.

Scoring was done by calculating the scores of each of the fifty-one items selected. The total score was out of 51. Mean scores were indicated in the interview sheet for the subscales and the total mean score is 28.7. The researcher used the incorporated scoring procedure in the interview sheet for the interviewer which is clearly explained in the VDMI manual to establish the highs and lows. The

researcher had the manual and had used it as a tool for training the research assistants.

The Career Decision-Making Self-efficacy (CDMSE) (short form) had twenty-five structured questions in a five-point Likert Scale reflecting the level of confidence of the respondents. Respondents were required to indicate where they fall on the continuum to express their level of confidence. The score ranged from 1-5 where 1 corresponded to No confidence at all and 5 complete confidence as illustrated below:

1	2	3	4	5
No	Little	moderate	Some	Full
Confidence	Confidence	Confidence	Confidence	Confidence

Respondents were expected to circle the numeral that indicated their position for those writing in print, while braille users had the same choices but were required to indicate in letters where A denoted Full confidence, B Some confidence, C Moderate confidence, D Little confidence and E No confidence at all. These letters were preferred for the totally blind learners because they can easily be generalized from the academic grading system.

The scale had five subscales:

1. Self-appraisal – (5 items)
2. Occupational information – (5 items)
3. Goal selection – (5 items)
4. Planning – (5 items) and
5. Problem solving – (5 items).

Scoring- scores for each task were calculated out of 5 for twenty-five items in the five sub-scales. The total score was out of 125. Means were calculated by

totalling the five items in each sub-scale and then getting the average response per item.

4.6.3 Results of the Pilot Study

The data collected were analysed using non-parametric correlation and the results were as follows:

- (a) Reliability – The Career Decision-Making Self-Efficacy (CDMSE) Scale had a reliability of 0.85 while the Vocational Decision-Making Interview Index had a reliability of 0.81 both of which are quite high and dependable. The validity of the instruments was observed during administration. Some of the items had been modified to suit the learners in Kenya. Learners were able to understand the items satisfactorily.
- (b) Quantity means – was the same for both instruments.
- (c) Pattern of correlation between instruments – This was different indicating that both instruments were measuring different things and therefore, the information gathered would enhance the study.
- (d) When tested whether the instruments were able to discriminate the effects of age and level of education on decision-making and self-appraisal, it was discovered that the CDMSE scale was able to do so with a p-value of 0.01 confidence level for age and p-value of 0.001 for level of education. The VDMI was observed to be a more general measure in this test.

4.7 Data Collection Technique for the Main Study

The data were collected using two questionnaires, the CDMSE and VDMI. Individual administration was conducted for the CDMSE items and interview for the VDMI. The questionnaires were prepared in both braille and large print. Research assistants had been trained thoroughly on data collection procedures to facilitate more objective collection of data. Among the research assistants, were two persons with visual impairments to enhance information disclosure among learners with visual impairment. All the data collectors were braille literate and

therefore, did not encounter any problems administering or recording responses in braille. Ethical considerations of informed respondents and confidentiality were adhered to. First permission to conduct research was granted by the Ministry of Education within a three months period. Consent was first sought from the school administration in both residential and day schools. The headmasters and teachers act as guardians of learners in their care. Consent was granted for the research to be undertaken in their schools. Learners were explicitly explained to the purpose of the study and the impact of the study findings upon their learning and planning of their transition into the world of work. Participants of this study were given the opportunity of voluntary involvement and those who declined were not forced to participate. This provision reduced the targeted sample from 164 to 128. Therefore, the actual respondents were 128.

The data collection period was two months. Data collection for the main study eliminated the subjects that were used for the pilot study to avoid test-wise effects. The main study thus used the remainder 90% of the sample subjects to be able to come up with representative data capable of meeting the study's expectations.

The Career Decision Making Self-efficacy questionnaire was administered in a group in every institution visited. Respondents were guided carefully on how they were expected to respond to the items. Time was allowed for the respondents to seek clarifications if there was anything they did not understand. The researcher then allowed the respondents to answer the items individually by circling the numbers as guided for respondents with low vision or writing down corresponding letters by respondents who used braille medium. The researcher stayed with the respondent all the time to ascertain that independent responses were given. The respondents were able to finish the test items within forty

minutes for the print writers. Braille writers took around one hour to accomplish the same task.

The Vocational Decision Making Interview was a one-to-one exercise where the researcher would ask the respondents the question items, give the respondent time to think over and answer. Clarifications were made if a respondent got stuck on an item. The respondents' responses were recorded not necessarily verbatim, but as observation notes for further reference. The interview was accomplished within thirty minutes for each individual.

4.8 Data Analysis

Data collected were coded for SPSS analysis. To show the educational progression, the class in which the learners were was coded according to the period of time they have been in school. In Kenya, primary education takes eight years. The respondents in the study were in their sixth and seventh year of schooling. High school education starts in the ninth to twelfth year. Respondents were in their tenth and eleventh year. University starts from the thirteenth year. This was because this was their thirteenth year of schooling. The respondents in the university were in their first year and that is why they were given thirteen years to indicate their educational progression. The respondent from the Industrial Rehabilitation centre was also recorded in the thirteenth year code since he was a secondary school leaver.

To make sense of the collected data descriptive analysis was done as follows:

T test was done to calculate mean differences between subject samples. Two-way Analysis of Variance was also conducted. The two-way analysis helps the researcher to test the first main effect of the dependent variable, the second main effect on the same variable and the interaction effect. It allows the researcher to conduct follow-up tests if one or more of the overall effects are significant or

switch the focus to the main effects if the interaction effect is not significant. The researcher also conducted linear regression to test the relationship between vocational self-concept and decision-making self-efficacy. The Linear regression model has important descriptive uses. First, it has inferential value. Linear regression is an efficient form that correctly describes the general association between two variables. The regression equation provides a mathematical description of the relationship between variables and allows the researcher to infer values of Y when the values of X are known.

The Bonferroni method was also applied to the on-going analysis. This method is used for multiple comparisons as a general approach to control for type 1 error in a variety of MANOVA situations. It is applied regardless of the groups or dependent variables in the analysis. The Bonferroni method tests each comparison at the alpha level for the ANOVA divided by the number of comparisons.

During the Vocational Decision Making interview, the researcher recorded observation notes on every VDMI item with an intention of using them later for qualitative data analysis. These observation notes were coded in Atlas TI, which is a Computer Assisted Qualitative Data Analysis Software (CAQDAS). The software helps a researcher to analyse qualitative data by increasing manageability of the data, increasing efficiency and also increasing rigour.

By increasing rigour, a researcher tries to gain in-depth understanding that might not have been attained in quantitative analysis. The data were analysed in the context of the type of disability, aspirations, awareness of limitations imposed by visual impairment, self-knowledge and decision-making styles. This analysis served the purpose of enhancing the understanding of the complexities of the development of vocational self-concept and decision-making self-efficacy.

4.9 Conclusion

Chapter four was the core of the study as it constituted the data collection procedures and the methods involved in the data collection. Thoroughness in data collection was essential as this would culminate to the soundness of the study and also give direction to the nature of intervention required for learners with disabilities to gain from the acquired information.

CHAPTER FIVE

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

5.1 Introduction

The goals of this chapter were first to analyze and interpret data obtained by the study and secondly to test the set hypotheses on the development of vocational self-concept and decision-making self-efficacy of learners with visual impairment. Responses gathered from the questionnaires used in the study were analyzed and the results interpreted to show the significance levels and relevance of the gathered data to the proposed study. As mentioned earlier in chapter four, two standardized and modified questionnaires were used to gather data. The Vocational Decision-making Interview (VDMI-R) by Czerlinsky and Chandler (1993) – Specifically designed to test vocational decision-making among persons with disabilities.

Career Decision Making Self-efficacy Scale (CDMSE-SF) by Betz, Klein, & Taylor (1996) - This scale has been successfully used with persons with disabilities in the United States. These two instruments were piloted in order to verify their adaptability with learners with visual impairment in Kenya.

An analysis strategy was planned to directly address the hypotheses and expectations set out in section 1.4.1 of chapter 1, namely:

- Ho₁ There is no significant linear relationship between vocational self-concept and decision-making self-efficacy.
- Ho₂ There is no significant difference between vocational self-concept of learners in school and those in college.
- Ho₃ There is no significant difference between vocational self-concept of learners in school and those in rehabilitation centre.
- Ho₄ There is no significant relationship between vocational self-concept and age.

Ho₅ There is no significant difference between decision-making self-efficacy and the severity of the visual impairment.

Ho₆ There is no significance difference in self-efficacy in relation to gender.

5.2 Quantitative Data Analysis Strategy

The steps in the analysis strategy are listed below. Results of the various analyses steps are discussed in the results section which follows. Before the above mentioned hypotheses could be evaluated, certain preliminary and exploratory analyses were undertaken, namely:

- Calculation of one-way frequency tables on all biographical variables. These analyses were used to gain an overview of the sampled population and be able to describe the sample. The one-way tables also guided further analysis steps in that biographical variables, which could not be successfully balanced (with respect to the number of observations within each category of a specific variable – for example, age or gender) were either regrouped and collapsed into fewer, more populous categories, or were omitted in further analyses.
- Calculation of one-way frequency tables on all questionnaire items of both scales (CDMSE and VDMI): these tables were used in exploratory analyses to validate the dataset: Data that indicated category values outside the range of 1-5 for the CDMSE and 0-1 for the VDMI scales were converted to missing data values. Responses identified in this way are listed in the results section as missing frequency. The exploratory analyses were furthermore used to confirm the range of scale values of the test instruments (1-5 for the CDMSE scale; and 0-1 for the VDMI scale).

5.2.1 Factor Analysis on the CDMSE Scale to Validate the Underlying Structure

Scale reliability testing of VDMI and CDMSE scale. This step was necessary to establish whether internal consistency reliability could be established for the various constructs of each scale. Once internal consistency reliability had been established for each of the constructs/ or aspects of the two scales (VDMI-R and CDMSE-SF), summary measures for each aspect were calculated (these summary measures are referred to as scores).

Once the preliminary and exploratory analyses had been completed, further analyses were conducted to evaluate the hypotheses stated in section 1.4.1, chapter one. Analyses of variance on the three sets of VDMI scores (that represent the three aspects of the VDMI scale), and on the general VDMI score were undertaken to establish whether type of school/ college/ rehabilitation centre, and age, had a significant effect on vocational self-concept. Likewise, analysis of variance was conducted on the general CDMSE scores to establish whether type of impairment and gender affected decision- making self-efficacy addressing hypotheses 5 and 6 listed in the introduction.

Bonferroni multiple comparisons of means tests for both the VDMI and CDMSE analyses of variance were conducted on category mean scores of biographical variables which were identified to have significant effects in the analyses of variance. These tests assisted in describing the nature of the effects identified as significant in the analyses of variance.

The relationship between vocational self-concept and decision-making self-efficacy was investigated by mean of linear regression (GLM approach). The effect of biographical variables on the relationship was taken into account as well, thereby addressing hypothesis 1 listed in the introduction.

5.2.2 Analyses Results and Deductions

The deductions presented below describe the various analyses that were employed on quantitative data and are supported by the interpretations of the tabulations therein. Numerous frequency tables were generated but for the sake of clarity the tables will be appended in the document. The tables therefore presented in this chapter are explained in each step. The first step was testing the reliability of CDMSE scale. This step was necessary to establish whether internal consistency reliability could be established for the various constructs of the CDMSE scale. Internal consistency reliability implies that all questionnaire items grouped within a dimension truly contribute towards explaining the dimension, and also be able to 'pool' the responses of the questionnaire items within the dimension/ construct in order to calculate a single score which represents a measure of the construct. The responses per dimension are usually pooled to form a mean value or score. The analysis calculated an indicator of internal consistency reliability, referred to as Cronbach alpha. If the value of Cronbach alpha is greater than 0.7, a 'rule of thumb' of some researchers, internal consistency reliability for the particular dimension/ construct has been established. However, sometimes Cronbach alpha of 0.5 is considered an adequate cut-off for internal consistency reliability.

Results of scale reliability testing conducted on the responses of the various sub-groups of questionnaire items are reported in the CDMSE table 5.1. The Cronbach alpha coefficients for Occupational information and Goal selection were quite low. Self-appraisal and problem-solving dimensions were at the cut-off, while only the planning dimension was close to 0.7. This implied that internal consistency reliability for the individual constructs could not be satisfactorily established. It was therefore decided to revert to the use of only the general CDMSE dimension (which incorporated all questionnaire items) in further analyses as measure of decision-making self-efficacy. This decision was based on the fact that the Cronbach alpha calculated for the general self efficacy

dimensions was equal to 0.85, indicating internal consistency reliability. Once internal consistency reliability had been sorted out, scores to represent general self-efficacy were calculated for each respondent as the mean value of all CDMSE scale items' responses.

Table 5.1: Reliability testing on CDMSE scale

Summary results for CDMSE-SF individual dimensions/concepts and general self-efficacy construct. Cronbach alpha coefficients for each construct, questionnaire items which describe each construct and scores means for each construct are reported in the body of the table.				
CDMSE construct	Questionnaire items	Cronbach alpha coefficient	Mean and s.d construct score	
Occupational information	q1, 10, 15, 19, 23	0.46		
Self Appraisal	q5, 9, 14, 18, 22	0.50		
Goal selection	q2, 6, 11, 16, 20	0.44		
Planning	q3, 7, 12, 21, 24	0.67		
Problem solving	q4, 8, 13, 17, 25	0.54		
General self efficacy (CDMSE)	q1-25	0.85	3.24	0.60

Table 5.1 above, reports the grand mean score for decision making self-efficacy. The value of 3.24 points was established to moderate to substantial confidence decision making self efficacy for the sampled population in general. (If the rating levels of the scale is kept in mind that a value of '1' indicates 'no confidence', '2' 'a little confidence'; '3', 'moderate confidence'; '4', 'some confidence' to '5'

indicating 'complete confidence) . More detail as to the nature of self-efficacy was investigated in analyses of variance which follow in a latter section.

Analysis of some categories was improved by collapsing some biographic attributes due to unbalanced data as a result of some institutions having very few respondents. Collapsing categories helps in reducing biases in analysis. The categories of the biographical attributes were collapsed into few more populous categories as indicated below. The classification used in these classifications could be used in further analyses without adding bias to results (which would have been the case had the original classification been used.)

With regard to the institute-attribute, the distinction between school and college – as suggested in the hypotheses section 1.4.1 section (hypothesis 2) could not be made in further analyses. Distinction between primary and secondary schools could be made and this classification was used in further analyses. For the same reasons, a distinction between school and rehabilitation institutions could likewise not be made with regard to the institution attribute. This was also suggested in hypothesis 3 of section 1.4.1. Categories for the age and class attributes could successfully be condensed into fewer categories and included in further analyses.

To enable further analysis of vocational decision-making and self-efficacy, the following attributes were collapsed and those that could not be collapsed such as role model were left out in consequent analysis (Table 5.2).

Table 5.2: Collapsed table of institutions

Institute	Frequency	Percent	Cumulative Frequency	Cumulative Percent
primary/ secondary school	123	96.09	123	96.09
college/university	5	3.91	128	100.00

Table 5.2 above indicates that primary and secondary schools could be distinguished and the two institutions could be classified for further analysis. Thus, the collapsed table 5.3 on the type of school is illustrated below.

Table 5.3: Collapsed table on the type of school

School	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Primary	46	37.40	46	37.40
Secondary	77	62.60	123	100.00

The second hypothesis had sought to distinguish between school and college. However, it was not possible to make the distinction using the institution attribute as suggested in the hypotheses section 1.4.1 section (hypothesis 2).

Distinction between primary and secondary schools could however be made and this classification was used in further analyses. A distinction between school and rehabilitation institutions could likewise not be made with regard to the institution attribute as had been suggested in hypothesis 3 of section 1.4.1. Categories for the age and class attributes could successfully be condensed into fewer categories and were included in further analyses. This facilitated further analysis using the collapsed categories alongside vocational self-concept and decision-making self-efficacy.

Table 5.4: Collapsed table of age distribution

age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
< 18 yrs	36	28.13	36	28.13
18-19 yrs	34	26.56	70	54.69
20 yrs	22	17.19	92	71.88
21-22 yrs	21	16.41	113	88.28
23+ yrs	15	11.72	128	100.00

Table 5.4 was collapsed this way to facilitate further analysis regarding the relationship of decision-making self-efficacy and age. The table indicates that there are almost as many learners with visual impairment in the age range of 20-23 years as those who are 13-19 years. The age range scattered across institutions and therefore, it is not possible to categorize for instance age 13-15 in primary or 16-19 in secondary schools. The scenario could be explained as being the result of different entry points in schools. Some learners enter school late because they are identified when they are above the school entry age. Others could have repeated classes because of adventitious visual impairment which may have interrupted learning while others repeat classes due to curricular gaps during curriculum implementation. The same reasoning was followed in reliability testing conducted on the dimensions of the VDMI dimensions suggested by Czerlinsky and Chandler (1999). Internal consistency reliability could be established for the general VDMI dimension of vocational self-concept (alpha coefficient of 0.81) and for two of the three dimensions proposed, namely decision-making readiness and self-appraisal which had alpha values of 0.85 and 0.88 respectively.

Employment readiness dimension was not strong since it had an alpha of 0.56 which is on the borderline.

For each respondent, the general vocational self-concept score was calculated as the sum of all '1' ratings recorded for all questions on the scoring sheet. Similarly the individual scores for the decision making readiness dimension and the self appraisal dimension were calculated as the sum of the '1' responses recorded for the subsets of questionnaire items describing one of these two dimensions. The scoring protocol was in compliance with the guidelines for the VDMI scoring protocol. The calculated score for the general self concept dimension, along with the decision making readiness and self appraisal dimensions were used in further analysis as measure of self concept, decision making readiness and self appraisal.

Table 5.5: VDMI scale reliability testing

Summary results for VDMI individual concepts and general vocational decision making construct. Cronbach alpha coefficients for each construct, questionnaire items which describe each construct and scores means for each construct are reported in the body of this table.				
VDMI construct	Questionnaire items	Cronbach alpha coefficient	Mean and s.d construct score	
Decision-making readiness	q1-17	0.85	10.52	4.31
Employment readiness	q18-28	0.56		
Self Appraisal	q29-51	0.88	13.71	5.70
General vocational self-concept	q1-51	0.81	16.18	5.33

The three sets of VDMI scores refer to the VDMI dimensions of decision-making readiness, self-appraisal and the general vocational self-concept. Analyses of variance was conducted on each set of VDMI scores to establish whether type of school, college or rehabilitation centre, and age – as suggested in hypotheses 2,3 and 4 of section 1.4.1, had a significant effect on vocational self-concept in general; on self-appraisal perceptions and on decision-making readiness.

As indicated in the exploratory section of the analyses, the categories of institution had to be re-classified into more representative classes to avoid bias. Consequently hypothesis 2 could not be evaluated directly as stated. The distinction between college (n=5) and school (n=123) would lead to biased results. The same applied to hypothesis 3 between school (n =123) and rehabilitation (n=1).

As an alternative suggestion, the alternative hypothesis was evaluated which tested the hypotheses that neither the effect of school (classified as primary or secondary schools), or educational level of parents, or the interaction effect between school and educational level, or a combination of these factors affect aspects/ constructs of vocational self-concept. The suggested analyses were executed and the results are presented in the summary analysis of variance tables.

Table 5.6: Decision-making readiness

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	550.73	137.68	11.26	<0.0001***
School	1	316.22	316.22	25.85	<0.0001***
Mother's education	3	189.55	63.18	5.17	0.0023**
Error	104	1272.05	12.23		
Corrected total	108	1822.77			
<p>Significance legend: *** Significant on 0.1% level ** Significant on 1% level * Significant on 5% level</p>			<p>Label legend: School : Primary and Secondary school Mother's education : Mother's educational level (primary, secondary, college, university)</p> <p>Note: the significance of the effect of other biographical attributes and second order effects were evaluated as well and found to be non-significant. All non-significant effects were added to the error term</p>		

Table 5.6 above shows the effect of the school on learners with visual impairment in their development of vocational self-concept and decision-making self-efficacy. Secondary school level has a high significance at 0.1. This implies that secondary education provokes career decision making than could be evidenced at the primary school level. This was illustrated in the respondents' choice of subjects. Secondary school respondents demonstrated knowledge of the

relationships between subjects and the choice of careers they would like to engage in future. The implication was advanced in the qualitative analysis. The analysis also indicates that mother's level of education had a significant impact on these learners' confidence in decision-making. Mother's education was analysed across a continuum of primary, secondary, college and university levels of education. Surprisingly, only mother's who had attained university education seemed to have any significant impact on their children's education, thereby enhancing their self-confidence, which is an importance prerequisite for the development of vocational self-concept and decision-making self-efficacy.

Table 5.7: Self-Appraisal Testing

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1181.10	295.28	14.45	<0.0001***
School	1	663.72	663.72	32.48	<0.0001***
Mother's Education	3	420.70	140.23	6.86	0.003***
Error	104	2125.25	20.44		
Corrected total	108	3306.35			

Significance legend:

- *** Significant on 0.1% level
- ** Significant on 1% level
- * Significant on 5% level

Label legend:

School : Primary and Secondary school

Mother's education : Mother's educational level (primary, secondary, college, university)

Note: the significance of the effect of other biographical attributes and second order effects were evaluated as well and found to be non-significant. All non-significant effects were added to the error term

Table 5.7 above, gives a similar indication that the 'school' attribute has significant effect on self-appraisal. Learners at secondary school level demonstrated awareness of their strengths and weaknesses and hence were able to match their abilities appropriately to future careers. This was not so at the primary school level, indicating that, the higher the level of education, the more confident learners were in their ability to appraise themselves. Again, mother's education

was established to have positive impact on learners' development of self-confidence. The effect was significant at $\alpha = 0.1$

Table 5.8: General vocational self-concept Testing (VDMI Total)

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	620.17	155.04	9.76	<0.0001***
School	1	342.55	342.55	21.57	<0.0001***
Mother Education	3	227.09	75.70	4.77	0.0041**
Error	81	1286.64	15.88		
Corrected Total	85	1906.80			

Significance legend:

- *** Significant on 0.1% level
- ** Significant on 1% level
- * Significant on 5% level

Label legend:

School : Primary and Secondary school

Mother Educ : Mother's educational level (primary, secondary, college, university)

Note: the significance of the effect of other biographical attributes and second order effects were evaluated as well and found to be non-significant. All non-significant effects were added to the error term

Table 5.8 above, again shows results of analysis on the effects of the two attributes, school and mother education on the learners' general vocational self-

concept and decision-making self-efficacy. Again there is consistency on the impact of the school and mother education on the way they portrayed confidence in their general understanding of what they would like to be and in the manner they made decision on the future careers.

Table 5.9: Employment Readiness Test

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	16	162.75	10.17	3.34	0.0002***
Age	4	30.39	7.60	2.50	0.0507*
School	1	15.91	15.91	5.22	0.0254*
Mother's Education	3	33.29	11.10	3.64	0.0186*
Mother Education * Father Education	8	42.10	5.26	1.73	0.1073
Error	69	210.09	3.04		
Significance legend: *** Significant on 0.1% level ** Significant on 1% level * Significant on 5% level			Label legend: School : Primary and Secondary school Mother's Education : Mother's educational level (primary, secondary, college, university)		

Table 5.9 above sought to find out the effect of age, school, mother education and father education on employment readiness of learners with visual impairment. As indicated above age was an added factor on employment readiness to school and mother education. Learners in higher levels of schooling were among those in higher age bracket and it means that their age also facilitated their confidence in employment readiness. However, those in lower levels were more concerned in pursuing education than employment.

Interpretation of the table's of mean scores is simplified if it is kept in mind that higher mean score values indicate a higher degree of confidence and lesser mean score values a lesser degree of confidence. Decision making readiness dimension on the other hand implies that, the mean scores indicate that secondary school learners have a significantly higher degree of decision making readiness than primary school learners. The mean scores also indicate that learners whose mother's education was at university level, have a significantly higher level of confidence in decision making readiness than learners whose mother's with education was at lower levels.

Earlier analyses (Table 5.7 and 5.8 above) had also indicated that the effect of the educational level of the mother had a significant effect on the VDMI dimensions of vocational self-concept investigated. The interaction effects on educational level of the mother and educational level of the father proved not to be significant. F probability associated with the type of school and educational level of the mother in each of the analyses were less than 0.001 – which is indicated that mother's education was significant at 0.1% level of significance. These findings facilitated the rejection of Hypotheses 2 and 3 which had indicated no significant difference between vocational self-concept of learners in school and those in college, on the basis of improved vocational self-concept as one progressed in higher levels of education.

5.2.3 Self-appraisal Dimension and General Vocational Self-Concept

The same pattern of confidence levels were identified for the dimensions of self-appraisal and general self concept with regard to type of school and educational level of mother. Consistent with the earlier analyses, older learners exhibited more confidence. The influence of mother’s level of education likewise revealed that mothers with high level of education were the only ones that impacted on their children’s education. This influence, in turn, facilitated the development of self-appraisal skills and vocational self-concept.

The adjusted hypotheses of no effect of type of school and educational level of the mother on vocational self-concept dimensions were thus rejected in favour of the alternative which states that the respective biographical effects did have a significant effect on self-efficacy confidence levels. Mean scores of VDME dimensions classified according to significant biographical attributes (identified in analyses of variance). Bonferroni multiple comparisons of means tests indicate which category score means of a biographical attribute differ significantly from other category mean scores. (Means with the same letter are not significantly different).

Table 5.10: Decision-making readiness dimension (Max score of 19)

Biographical attribute	Category	Mean (N)	N
School (Bonferroni lsd = 0.1.36)	Primary	7.79 a	43
	Secondary	11.52 b	66
Mother’s educational level (Bonferroni lsd = 2.81)	university	13.75 a	12
	secondary school	10.43 b	40
	college	9.18 b	28
	primary school	8.83 b	29

Table 5.10 above presents Bonferroni multiple comparisons of means tests. These were further conducted on the VDMI category mean scores of the significant school and educational level attributes to evaluate how the various self-concept aspects were affected.

Indirectly hypotheses 2 and 3 could thus be addressed. However, institutional differences could not be tested for university, college or rehabilitation centre. Consequently, the hypothesis could be modified to test for significant differences between primary and secondary school learners, which proved to be significant. These significant differences are highlighted.

Table 5.11: General vocational self-concept (max score of 51)

Biographical attribute	Category	Mean (N)	N
School (Bonferroni lsd = 1.63)	Primary	13.40 a	43
	Secondary	17.50 b	66
Mother's educational level	university	19.75 a	12
	secondary school	15.98 b	40
	college	14.41 b	28
	primary school	14.29 b	29

In table 5.11 above, No significant age effect on vocational self concept could be established. In addition the significance of the effect of the mother's educational level was identified and the nature of the effect is also described in table 5.9. The table shows that mother's education effect was only at university level. Other levels of education did not portray any significant difference. Although other biographical attributes were investigated, no significance for these attributes or their interactions could be established.

Table 5.12: CDMSE ANOVA on decision-making self-efficacy

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	3.02	0.75	2.19	0.07
age	4	3.02	0.75	2.19	0.07
Error	123	42.30	0.34		
Corrected total	127	45.32			

<p>Significance legend: *** Significant on 0.1% level ** Significant on 1% level * Significant on 5% level</p>	<p>Label legend: School : Primary and Secondary school Mother Education : Mother’s educational level (primary, secondary, college, university)</p> <p>Note: Effect of visual impairment was found to be non-significant and added to error term (along with second order effect)</p>
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Table 5.12 above highlights the nature of the effect of biographical attributes on the general CDMSE dimension scores means comparisons. CDMSE analysis of variance was subjected on score values of the General Decision-Making Self-Efficacy concept to evaluate effect of severity of visual impairment and gender as shown on the table above. Interpretation of the CDMSE category score means is simplified if kept in mind that values approximating ‘5’ represent a very confident perception and mean scores close to ‘1’ indicate no confidence. The test on CMDSE mean score according to age categories indicate that the young learners

tend to exhibit significantly less self-efficacy confidence (on the 10% level of significance) than the older learners in the 21-22 age category. Surprisingly, the effect of visual impairment was found not to be significant implying that severity of visual impairment did not impact on the development decision-making self-efficacy. This is consistent with hypothesis 5, which had stated that, there is no significant relationship between decision-making self-efficacy and the severity of the severity of the visual impairment. On the basis of this finding hypothesis 5 can be accepted.

Table 5.13: Decision-making readiness dimension (Max score of 19)

Biographical attribute	Category	Mean (N)	N
age	<18	3.12 a	36
	18-19	3.15 ab	34
	20	3.16 ab	22
	21-22	3.53 b	21
	23+	3.43 ab	15

In Table 5.13 above, mean scores of VDMI dimensions were classified according to significant age categories (identified in analyses of variance). A Bonferroni multiple comparisons of means test indicate which category score means of the age attribute differ significantly from other category mean scores. Means with the same letter are not significantly different. The table shows that learners below the age of 18 years differed significantly from learners above that age. It can be deduced that most learners below 18 years are likely to be at primary level of education. As had been stated earlier these learners do not seem to have focused on future career matters, hence, they have not yet engaged themselves in decision-making strategies. Learners in secondary school level seem to have been provoked by subject choices, to make decisions oriented toward their future careers.

Table 5.14: Self appraisal (max score of 23)

Biographical attribute	Category	Mean (N)	N
School (Bonferroni lsd = 1.76)	Primary	9.88 a	43
	Secondary	15.29 b	66
Mother's educational level (Bonferroni lsd = 3.63)	university	17.83 a	12
	secondary school	14.15 b	40
	college	12.46 ab	28
	primary school	10.52 c	29

Table 5.14 above, shows the means of self-appraisal analyzed on the attributes of school and mother's educational level. The results indicate that there was significant difference on how the learners portrayed their self-appraisal on the basis of their mothers' level of education. Learners whose mothers' level of education was at the university had more confidence in their self-appraisal. Letters 'a' and 'c' above express a wide difference on learners' confidence in their self-appraisal. Learners whose mothers' level of education was at primary level had significantly lower level confidence than those whose mothers' education was at secondary and college levels. There was a wide range between primary and university levels of education as indicated by these mothers' involvement and consequent influence over their children's development of self-confidence, self-concept and decision-making self-efficacy.

Table 5.15: Linear regression on the relationship between CDMSE and VDMI

Linear regression (GLM approach) to investigate the relationship between the general CDMSE self-concept and the general VDMI self-efficacy dimension scores.					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model (VDMI total)	1	3.35	3.35	10.04	0.0019**
Error	126	41.97	0.33		
Corrected total	127	45.32			
Estimates of regression coefficients					
		Estimate	std error	t value	Pr > abs (t)
	Intercept	2.75	0.12	16.80	<0.0001***
	Slope (VDMtot)	0.03	0.009	3.17	0.0019**
Significance legend: *** Significant on 0.1% level ** Significant on 1% level * Significant on 5% level					

Table 5.15 above show CDMSE and VDMI relationship between vocational self- concept and decision making self efficacy investigated by mean of linear regression (GLM approach) to test Hypothesis 1 listed in section 1.4.1. In this

approach, both the VDMI and CDMSE score values were regarded as continuous variables and therefore the relationship between the two variables could be investigated by means of a linear regression. This was in contrast to the preceding analyses in which the dependent variables were regarded as continuous and the independent variables, categorical. The results of the regression analysis are summarized in Table 5.15. The regression proved to be significant as indicated by the significance attached to the general F value of 10.04 associated with the regression (significance level of 1%). Hypothesis 1 stated in section 1.4.1 can thus be rejected in favour of the alternative hypothesis which states that a significant relationship exists between vocational self concept and decision- making self- efficacy.

Although the variation in the data explained by the regression is not very high, the relationship between vocational self-concept and decision making self- efficacy can be explained by the regression equation presented below since both regression coefficients, namely the intercept and slope of the equation proved to be significant on at least the 1% level of significance - as indicated in Table 5.15 above.

$$\text{CDMSE} = 2.75 + 0.03 \times (\text{VDM total}),$$

(where CDMSE represents the general CDMSE self-efficacy dimensions scores and VDMI the general vocational self concept dimension scores)
vocational self = I

The slope of the regression equation is positive, which implies that vocational self-concept and decision making self-efficacy is positively related – increased (although a very gradual increase) self-concept confidence goes hand in hand with higher confidence levels of decision-making self-efficacy and vice versa.

5. 2.4 Conclusion for the Quantitative Analysis Report

The following meaningful deductions were made:

Hypothesis 1

A significant positive relationship exists between Vocational self concept and decision making self efficacy. The relationship could be described by means of a linear regression equation.

Hypotheses 2-4

The educational institution which students attend significantly affected vocational self-concept. Although institutional differences could not be tested for university, college or rehab, the hypothesis could be modified to test for significant differences between primary and secondary school students, which proved to be significant. These significant differences are highlighted in table 5.13. No significant age effect on vocational self-concept could be established. In addition the significance of the effect of the mother's educational level was identified and the nature of the effect is also described in table 5.13. Although other biographical attributes were investigated, no significance for these attributes or their interactions/**or** second degree effects could be established.

Hypotheses 5-6

Visual impairment and gender proved not to have a significant effect on decision-making self-efficacy. Therefore hypotheses 5 and 6 were accepted. Further analyses indicated however that age affected decision-making self-efficacy confidence. The nature of the effect is reflected in table 5.14. In general the results seem to indicate that both self-efficacy confidence and self-concept confidence increase as students mature. Furthermore vocational self-concept and decision making self-efficacy are statistically related. The significance of the effect of the mothers' educational level on vocational self- concept was also an interesting additional finding. The hypotheses could thus all be addressed.

5.3 Qualitative Analysis Report

The researcher coded VDMI observation notes on Atlas Ti in order to explore in depth the nature of respondents' responses on the following coding frames; type of disability; aspirations; awareness of limitations due to visual impairment; self-knowledge; and decision-making. The coding frame by the type of disability indicated whether the respondent has low vision or is totally blind. Low vision was indicated as LV and Total blindness as TB in the subsequent data. This helped the researcher isolate the responses according to impairment type.

SS

During coding the primary documents files (pd) were formulated from the respondents' list according to the sequence in the list, where pd 1-pd46 comprised primary school respondents, pd47-pd123 were high school respondents and 124-128 were Kenyatta University respondents. This helped the researcher to determine the level of education of the respondents while selecting quotations in the analysed data and make deductions on the issues addressed above. The pd files selected indicated consistent responses among many learners with visual impairment implying that they were representative responses of the sample.

KEY

I: Interviewer

RE: Response

5.3.1 Analysis on Awareness of the Respondents' Type of Disability

To analyse the awareness on the impact of the type of disability on respondents' career choices, selected questions as illustrated below were posed to all the subjects. Using pd files the researcher then selected three sets each representing a level of education, starting with primary, secondary and university respectively.

Set 1: Selected quotes at primary school level

Primary school respondent (pd. 4 TB)

26. I: Would you move to a different place to get a job if you had to?

RE: Yes, I would gladly move.

27. I: Could you find a way to get to and from work?

RE: Yes.

I: Explain.

RE: I will get a guide or transport

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: Yes, of course my choices are fewer than for those without disability.

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: Loss of sight

35. I: Are there jobs you would not take because of things that are important to you?

RE: Yes, those that require use of sight.

39. I: How does your blindness limit the type of work you can do?

RE: I cannot run well without a guide as assistance

Primary school respondent (pd. 5 LV)

26. I: Would you move to a different place to get a job if you had to?

RE: Yes, if it is the place I can find a job.

27. I: Could you find a way to get to and from work?

RE: Yes

I: Explain.

RE: If there is transport.

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: Yes, especially where transport is not available.

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: I am not aware of the needs.

35. I: Are there jobs you would not take because of things that are important to you?

RE: I don't know.

39. I: How does your blindness limit the type of work you can do?

RE: It does not limit my choices.

The above selected quotations show responses of two respondents, one who is totally blind and the other with limited vision hence referred to as low vision. The responses of the totally blind learner seem to portray better awareness of the impact of loss of vision on career choices. However, the responses to questions 32 and 35 do not indicate knowledge of personal needs and how adaptations would help the respondent to engage in the 'jobs that require sight'. The low vision learner also shows some awareness of limitations of loss of vision in travelling to and from work, but does not know how the visual impairment would affect job performance or what he or she would need in order to perform job duties efficiently. Such responses may indicate lack of occupational information that would equip them with knowledge about job requirements and demands so that they can be able to weigh them against their abilities. Such knowledge would facilitate clarity on the limitation imposed by visual impairment. This kind of responses could have led to the earlier results that indicated no significant effects of visual impairment on career choice.

Set 2: Selected quotes at secondary school level

Secondary school respondent (pd. 52 TB)

27. I: Could you find a way to get to and from work?

RE: Yes.

I: Explain.

RE: I can with use of a guide or good transport.

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: Yes, because I cannot do the subjects that can lead to good jobs such as physics.

39. I: How does your blindness limit the type of work you can do?

RE: It does not limit my job performance.

The above quotations represent the responses of a totally blind learner at secondary school level. The respondent seems to be aware of the limitation due to his type of visual impairment by indicating the need for sighted guide or transport to and from work. Question 28 is wrongly answered because the concern raised was on ability to move about. However, the respondent raises another concern that involve the effect of curriculum on job choices by imply that there are subjects such as physics which are extensively visual yet they lead to what the respondent perceive as better jobs than what he would be able to choose with a visual impairment. Interestingly, the respondent does not seem to be aware of jobs demand since he/she argues that visual impairment would not affect the preferred job. Thus again consistent with earlier findings that visual impairment had no significant effect on job choice.

Secondary school respondent (pd. 67 LV)

27. I: Could you find a way to get to and from work?

RE: yes.

I: Explain.

RE: I have some remaining vision.

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: No, because it does not hinder my moving around.

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: I have albinism and therefore need environmental modification.

35. I: Are there jobs you would not take because of things that are important to you?

RE: Yes, those where employees are mistreated.

The above respondent is aware of the type of visual impairment he or she has. He or she portrays confidence in how the remaining vision can be utilized without losing sight of needs imposed by loss of vision. The respondent is aware of the need for environmental modifications as indicated in the response to question 32 above. However, the respondent still indicates fear of mistreatment. Perhaps this kind of fear could emanate from the stigma associated with albinism rather than knowledge of actual employment mistreatment.

Set 3: Selected quotations at university education level

University college respondent (pd. 124 LV)

27. I: Could you find a way to get to and from work?

RE: Yes.

I: Explain.

RE: I will have a car.

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: Yes, there are few jobs because of limitations of subjects.

39. I: How does your blindness limit the type of work you can do?

RE: It limits my sight.

University college respondent (pd. 126 TB)

27. I: Could you find a way to get to and from work?

RE: Yes.

I: Explain.

RE: I will get orientation at first then move on.

28. I: Does it seem like you have too few job choices because it is hard for you to get around?

RE: Yes, there are fewer choices.

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: I need a guide and reader.

39. I: How does your blindness limit the type of work you can do?

RE: I experience low achievement in visual tasks.

The quotations above show that the respondents at the university level are more aware of the limitations of visual impairment in their career choices. They are also aware of their personal needs and how they affect their job performance since they indicate need for guides and readers who are necessary inclusions in their work demands. The respondent with low vision, however, does not seem to be clear on how blindness affects the type of work he or she can do, hence, the generalized response that blindness limits sight.

5.3.2 Analysis on Future Aspirations

The following questions were selected to investigate learners' with visual impairment aspirations at primary school level.

“Are there jobs you have been thinking about getting”?

“How much education or training is needed for the jobs you are thinking about”?

“What kind of career would you like to do for the rest of your life”?

Table 5.16 Learners' educational aspirations at Primary school in Percentage (N= 46)

School	No. of subjects	University %	College %	Secondary %	Not sure %	Cumulative percent
Thika	37	60	7	7	7	81
Kilimani	5	7	2	2	0	92
Muthaiga	2	2	0	2	0	96
Our Lady of Mercy	2	2	0	0	2	100
total	46	81	9	11	9	100

Table 5.16 above show the educational aspirations of learners with visual impairment irrespective of the severity of their visual impairment. 81% of the respondents aspired to pursue their education up to university, 9% up to middle college, 11% up to secondary and 9% were not sure of how far they can pursue education. The respondents' educational aspirations seemed to be consistent with the occupational aspirations except in very few cases where a respondent would choose a job that is beyond the level of education aspired for. This showed that they were aware of the qualifications required for the jobs they were aspiring for and therefore if they attained the required education then they would realize their dreams.

Table 5.17 Learner’s occupational aspirations at Primary (N= 46)

JOB	No. of aspirants	percentage	Cumulative percentage
Law	9	20	20
Teaching	10	23	43
Musician	8	17	60
Farming	3	7	67
Business	2	4	71
News-casting	2	4	75
Acting	2	4	79
Sports	1	2	81
Politics	1	2	83
Not sure	8	17	100
Total	46	100	100

Table 5.17 above show the type of occupations learners with visual impairment aspired for. The occupation with the highest percentage is teaching followed by law and music respectively. The decision made by 60% of the learners to choose consistently jobs like law, teaching and music indicate a leaning towards job stereotypes. These are the jobs that persons with visual impairments usually engage in. A considerable number of learners constituting 17% are still undecided about the careers they can be able to engage in, while the rest indicated willingness to venture away from stereotypes. The occupations they are willing to enter are farming 7%, business, News-casting and acting each with 4% of the respondents, while sports and politics each attracted only 2% of the primary school subjects.

The same questions were explored to find out educational and occupational aspirations of learners with visual impairment at secondary school level namely:

“Are there jobs you have been thinking about getting”?

“How much education or training is needed for the jobs you are thinking about”?

“What kind of career would you like to do for the rest of your life”?

Table 5.18: Learners’ educational and occupational aspirations at secondary school (N= 77)

JOB	LEVEL OF EDUCATION	NO. OF ASPIRANTS	PERCENTAGE	CUMULATIVE PERCENT
Teaching	University	31	40	40
Law	University	20	26.3	66.3
Musician	Secondary	12	16.2	82.5
Business	College	5	6	88.5
Journalism	University	4	5	93.5
Medical Dr.	University	1	1.3	94.8
Tour guide	College	1	1.3	96.1
Typist	College	1	1.3	97.4
Farmer	College	1	1.3	98.7
Not sure	secondary	1	1.3	100
Total		77	100	100

The above table shows more crystallized aspirations toward teaching with more respondents inclining towards higher levels of teaching in secondary school level and tertiary institutions. Other than teaching other careers that secondary school learners aspired for were law and music. Only a few respondents felt they can join careers such as farming, business or tour guide and journalism. At this level a respondent aspiring for a career in medical doctor portrays lack of awareness in limitation of visual impairment. Teaching, Law and music are careers that have been practised by adult persons with visual impairment. The three careers attract 79% of the learners indicating that they are still engrossed in occupational

stereotypes that narrowly express what persons with visual impairments have been perceived to be able to do.

At the university level, question 3 was rephrased to ask; what kind of career would you have liked to be in for the rest of your life? This question was answered by five respondents. They were all training to be teachers. Three respondents would have liked to be lawyers, one would have liked to be a political analyst and only one was training in initially aspired occupation. When they were probed further why they were not able to join the careers of their choice they explained that they were not able to meet the cluster subjects grades requirements.

The learners' aspirations are still narrowed to either law or teaching. Law is of course perceived to be higher in the rank than teaching because it demanded higher score than teaching and it is not therefore surprising to see respondents preferring law to teaching. Even at university level, occupational aspirations were still based on the same stereotypes portrayed at the lower levels of education. This is because they aspire to be only in the careers that they have seen persons with impairments do. It does not matter the level of education they will still choose careers like law, teaching and Music.

5.3.3 Analysis on the Awareness of Limitations due to Visual Impairment

The following questions were posed to learners to investigate how they perceive limitations of visual impairment to their aspired future careers.

“What kind of jobs would you not do even if they paid a lot of money”?

“What personal needs do you have and how would they affect the jobs you would like to take”?

“How does your blindness limit the type of work you can do”?

Table 5.19 Limitation of job choice due to visual impairment by number of times mentioned (N= 128)

Institution	Pilot	Medical Doctor	Engineer	Army	Nurse	Driver	Police	Watchman
Primary	4	9		2	2	6	4	2
Secondary	12	9	2	1	1	2	2	
University	1	2	2					
Total	17	20	4	4	3	8	6	2

Table 5.19 above presents jobs that were perceived as unattainable due to limitation of visual impairment. Out of 46 primary school respondents, medicine as an unattainable career with visual impairment was mentioned 9 times, driving 6 times, pilot and police 4 times each and army, nursing and watchman 2 times each. The reason for looking at frequency rather than the number of respondents who responded was because a respondent could name up to three unattainable careers due to visual impairment. Taking that aspect into consideration, only a few respondents were able to associate the question with limitation of visual impairment. The same pattern of responses were presented by secondary school and the university respondents, except for the fact they would mention higher category jobs such as medicine and engineering. The frequencies of their responses are as indicated in the table.

Table 5.20 Learners' awareness of personal needs by number of times
Mentioned (N= 128)

Institution	Sighted guide	Reader	Modified environment
Primary	1		
Secondary	3	2	1
University	2	3	3
Total	6	5	4
Percentage	5	4	3

Table 5.20, above show how learners with visual impairment indicated their awareness of personal needs in relation to visual impairment and job performance. At primary school level, learners seem to be completely unaware of needs of persons with visual impairment as they execute their jobs. They may not have observed any modification of the environment or they may have not associated the environmental modifications to the ease with which adults perform their duties. Only 1 learner indicated the need to have a guide in the work place. However, learners at secondary and university level had become aware of other needs such as the need for readers and modified environment. None of the learners mentioned the need for adapted equipment to facilitate efficiency.

Table 5.21 Effects of blindness on job performance by number of times mentioned (N= 128)

Institution	Access to print media	Mobility	Job choice	Subject choice	Interaction
Primary	1		1		2
Secondary	13	15	5	5	
University	3		2		
Total	17	15	8	5	2
Percent	13	11	6	4	2

Table 5.21 presents the learners responses to the question “How does your blindness limit the type of work you can do”? Learners at the lower level of education were not sure of how blindness can limit job performance and the consistent response for the majority was “It will not limit the type of work I will choose to do.” This kind of responses portrayed ignorance on the type of hassles that adults with visual impairment go through in execution of their day-to-day duties. Learners seem to imply that the jobs done by adults with visual of impairment are free from limitations. However, limitations due to lack of access to print media was mentioned once, job choice limitation once, and limited interaction twice. Learners at the secondary level were able to add on the list by mentioning mobility restrictions and also restricted subject choices due to visual impairment. The respondents who were able to give these responses were very few compared to the vast majority who gave varied unrelated responses. The fact that majority of the learners across the three level were not able to express how blindness can limit the work they were looking forward to engaging in future negatively impacted on the determination on how severity of visual impairment would affect learners’ career choice. This led to acceptance of the null hypothesis earlier expressed in section 1.4.1 that ‘there is no significant relationship between decision-making self-efficacy and the severity of the visual impairment’.

5.3.4 Analysis on the Respondents' Self-knowledge

To explore the learners' self-knowledge, sets of questions and their responses were selected as illustrated below.

Primary school respondent (pd. 10 TB)

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: I am not aware of any needs.

33. I: What interests (things you like to do) would help you to decide on a job?

RE: I don't know.

34. I: What beliefs and values are important to include in your job choice?

RE: I am not aware of the values to include on job choices.

35. I: Are there jobs you would not take because of things that are important to you?

RE: No.

36. I: What abilities do you have that will help you decide on a job?

RE: I don't know.

40. I: Do your opinions or beliefs about yourself change a lot?

RE: I am not sure.

41. Describe the kind of life you want for yourself.

RE: I would like to have a good life in future.

42. I: What do you know about yourself (your personality) that would help you decide about a job?

RE: I don't know.

The above quotations present questions and responses that were used to explore learners' self-knowledge. The responses above portray lack of self-knowledge since most of the responses were "I don't know" or "I am not sure". The respondent, however, expresses the desire to lead a good life in future. One of the

concerns that can be raised for this respondent is lack of knowledge about own abilities that would facilitate him or her decide on a particular job.

Primary school respondent (pd. 17 LV)

32. I: What personal needs do you have and how would they affect the jobs you would like to take?

RE: I need enough rest.

33. I: What interests (things you like to do) would help you to decide on a job?

RE: I like fame, and a well paying job will make me famous.

34. I: What beliefs and values are important to include in your job choice?

RE: I don't know.

35. I: Are there jobs you would not take because of things that are important to you?

RE: Yes, those that will affect my Christian faith.

36. I: What abilities do you have that will help you decide on a job?

RE: I have not assessed them yet.

37. I: What types of work are you good at doing?

RE: Singing and advising others.

38. I: What kind of works would you be good at, if you had more training?

RE: Counselling, especially be a doctor in psychology.

39. I: How does your blindness limit the type of work you can do?

RE: It limits my movements and make me dependent on others.

40. I: Do your opinions or beliefs about yourself change a lot?

RE: I don't know.

41. I: Describe the kind of life you want for yourself.

RE: I am not sure of the kind of life I want to live in future.

42. I: What do you know about yourself (your personality) that would help you decide about a job?

RE: I don't know.

The above quotations present responses of a primary school learner with low vision. Usually low vision may be considered from mild, moderate and severe visual impairment. Judging from this point of view, respondents with low vision would be expected to demonstrate greater self-knowledge in the assumption that their remaining vision would expose them to a wider variety of experiences than those who are profoundly visually impaired. The responses above show some awareness on personal interests, but no knowledge of personal abilities. Specifically, irrespective of severity of visual impairment, learners are not sure of their own values, beliefs or abilities. The limited self-knowledge portrayed by these learners cannot help them make career choices. This finding is consistent with the descriptive data analysis that did not find any significant difference in decision making self-efficacy in relation to the severity of visual impairment.

5.3.5 Analysis on the Respondents' Decision-making

Primary school respondent (Pd. 15 TB)

43. I: How have your past decisions about taking a job worked out?
RE: I am not sure of having made decisions about jobs.
44. I: Is deciding about jobs unpleasant for you?
RE: I am not sure
45. I: Have other people disagreed with you over decisions about a job?
RE: No, I have not asked them about jobs
46. I: Have you ever had to decide whether you wanted to take a job or not?
RE: Yes, when I am thinking about my future career.
47. I: Do you believe that you will get a job even if you don't try hard to find one?
RE: Yes, because I can employ myself.
48. I: Do you think other people can make better decisions for you about a job than you can for yourself?
RE: No, I would like to decide for myself.

49. I: Does thinking about a job decision make you upset?

RE: No.

50. I: Which is better: to just let things happen or try to make a job choice?

RE: I would like to make a job choice.

The above quotations show the responses of a respondent at the primary school level of education. The respondent expresses lack of opportunities to make decisions in response to question 43 above. The desire to make independent decision is however portrayed by responses to questions 48 and 50. This was consistent with majority of the respondents. They portrayed a desire to decide on their own as long as they were sure of their abilities. Majority of the respondents felt that their preferences and abilities can help them make independent decisions otherwise they might end up engaging in wrong jobs. They portray awareness of the consequences of dependent decision-making.

5.3.6 Conclusion for the Qualitative Analysis Report

The qualitative analysis indicates that learners at the primary school have inadequate self-knowledge in relation to future careers. They show unawareness of personal abilities, interests or work values that can guide them to suitable career choices. The way they expressed their aspirations seemed to demonstrate a potential for high aspirations like those of their non-disabled peers. They also demonstrate potential for independent decision- making self-efficacy, but this would be achieved if they would be provided with appropriate career guidance and counselling.

The use of both quantitative and qualitative approach was beneficial in this study because the researcher was able to examine the extent to which different variables affected the development of vocational self-concept and decision- making self-efficacy of learners with visual impairment at different levels of their learning. Qualitative analysis explored deeper the nature of self-knowledge and aspirations

the learners possess as these are desired catalysts for adequate development of vocational self-concept and decision-making self-efficacy. This approach is more information rich than using quantitative measures alone which leave researchers with further questions which may not be addressed as after thoughts. The mixed method is more comprehensive and more versatile especially where immediate intervention is envisioned. Specifically for this study a deeper understanding of the learners' status was core in order to develop a component of career guidance and counselling for learners with disabilities.

CHAPTER SIX

SUMMARY OF FINDINGS, DISCUSSION, RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

The goals of this chapter were to provide the summary of the findings, their implications and give recommendations based on the findings and to suggest an outline for career guidance component to be included in a suggested book on comprehensive guidance and counselling for learners with special needs.

The present study aimed at investigating the development of vocational self-concept and decision-making self-efficacy among learners with visual impairment. Using a mixed design approach where both quantitative and qualitative data collection were used, the study aimed at providing a logical development from the perceived research problem to the findings, implications and recommendations.

In the first chapter, the background of the study was highlighted, research problem formulated, together with research questions that would guide the study in unpacking the problem. In addition, explanation of key concepts was given and a brief description of the research design.

A comprehensive literature review was presented in chapter two focusing on issues that would facilitate the development of vocational self-concept and decision making self-efficacy among learners with visual impairment.

Chapter three provided insight on learners with visual impairment current statuses in educational provision, transition into the world of work and the challenges they face in their efforts to seek employment. Various organizations were highlighted especially in their supportive roles to facilitate learners with visual impairment move through different transition challenges.

The fourth Chapter represented detailed information on research design, sample, data collection instruments and their modification for use in the current study. Data collection procedures were also provided as well as how the data would be analyzed.

Chapter five indicated how the responses gathered were organized, analyzed and how the data was interpreted. The data was presented in frequency tables, Analysis of variance (ANOVA) and Regression tables. Atlas TI was also used to analyze the learners' aspirations and vocational decision-making styles.

The final chapter six presented the summary of findings, their implications together with recommendations both for a comprehensive guidance and counselling and future research. The chapter then ended with a brief concluding remarks and an outline of proposed component of career guidance for learners with special needs.

6.2 Summary of Findings

The summary of findings on the tested hypotheses and data in chapter five that have culminated to the following:

1. A significant positive relationship was found to exist between Vocational self-concept and decision-making self-efficacy. The relationship could be described by means of a linear regression equation.

The null hypothesis (H_{01}), which had earlier stated that “There is no significant linear relationship between vocational self-concept and decision-making self-efficacy” was rejected on the realization that the more developed the vocational self-concept the more confident learners would demonstrate confidence in their career decision-making.

2. The educational institution which learners attended significantly affected vocational self-concept. It was evident that learners in secondary school had a more developed vocational self-concept than learners who were in primary school level.

The null hypothesis (H_{o2}), which had stated that “There is no significant difference between vocational self-concept of learners in school and in college” was again rejected on the basis of improved vocational self-concept as learners progressed along the education ladder.

3. No significant age effect on vocational self-concept could be established. The raw data had indicated that learners’ age was not a predictor to educational level. Some learners in the primary school level were as old as those who had already enrolled for university education. This implied that age factor alone was not a significant contributor to the development of vocational self-concept.

The null hypothesis (H_{o4}), which had stated that, “There is no significant relationship between vocational self-concept and age” was accepted.

4. The severity of visual impairment did not have a significant effect on decision making self efficacy. Learners with low vision responded in closely the same manner as those who were totally blind. Thus there was no significant difference in the way they portrayed their confidence in making career decisions in relation to severity of visual impairment.

Null hypothesis (H_{05}), which had also stated that “There is no significant difference between decision-making self-efficacy and the severity of the visual impairment” was again accepted on the basis of findings.

5. There was no significant difference in decision-making self-efficacy on the basis of gender. The male and female learners portrayed similar patterns in the manner they demonstrated their confidence in decision-making as they chose their future careers.

Null hypothesis (H_{06}), which had stated that ‘There is no significance difference in self-efficacy in relation to gender’ was accepted. This can be anticipated since all the learners share the same environment and were thus likely to have similar experiences with differentiations in terms of their unique ‘selves’ rather than on the basis of gender.

6. The significance of the effect of the mothers’ educational level on vocational self concept was an interesting additional finding. The study found out that the level of mother’s education had an impact on the manner learners demonstrated their decision-making self-efficacy. The higher the mother’s education the higher the confidence of learners with visual impairment in making career decisions. Learners whose mother’s education was at the university level portrayed higher decision-making self-efficacy than learners whose mother’s education was at the lower levels.

Qualitative analysis found that learners had high aspirations that were not supported by awareness of interests or abilities. Learners did not portray knowledge on how visual impairment limit career choices or job

performance. Specifically they displayed inadequate self-knowledge especially at the primary school level.

6.3 Discussion

The findings of the study have important implications to counsellors, teachers, parents, and policy makers especially the ministry of education. The desirable outcomes of every learner are to acquire knowledge, skills and attitudes that will finally facilitate productivity of the learner as a prospective nation builder. These outcomes are not restricted to learners without disabilities, rather they are meant for all learners in order to nurture them as assets and not liabilities. The Kenyan education Act is also inclusive in its statement of who should be provided with education. It states that “All children have a right to education irrespective of sex, creed, race or handicap” (Education Act Cap 211).

As had been stated earlier in Chapter one, the Kenya education sector incorporates guidance and counselling within its curriculum. It presumes that career guidance and counselling should be an important component aimed at preparing the youth for a meaningful adult life after completion of school at primary and secondary levels. However, several research that have been carried out do not portray any comprehensive guidance and counselling services (Republic of Kenya, 2005b:162). Specifically career guidance and counselling which should aid the youth in the development of vocational self-concept and instil in them career decision-making skills that would enable them to engage in a satisfying livelihood is not adequately grounded. The current study affirms that the lack of comprehensive career guidance and counselling for learners with visual impairment at school level and if not addressed the situation will continue exposing school leavers into higher and higher unemployment rates. These findings are consistent with Macharia and Ngwiri (2002); Wamocho (2003) and

Irungu (2008) who have decried the kind of guidance and counselling provided to learners with disabilities generally.

Specifically Irungu (2008) asserted that teachers expressed lack of confidence in the skills they had to effectively handle guidance and counselling issues of learners with visual impairment. There was consensus by teachers in high school for the blind in Thika that they needed in-service training if they would be expected to guide and counsel learners effectively.

In addition this study found only minimally significant parental effect on the development of vocational self-concept and decision-making self-efficacy. This was evidenced in the manner mother's education impacted on learners' confidence in decision-making. However, this was only feasible where the mother's education was at university level. Fathers' involvement was not felt at all. This implies that there is lack of adequate involvement of parents in their children's career futures. Considering that most parents of learners with disabilities may lack information on what kind of careers their children would be able to engage in there is need for close collaboration between career counsellors and parents in career guidance so that they can take collective responsibility in helping learners develop their vocational self-concept.

Furthermore learners seemed to have limited self-knowledge on issues related to careers, abilities and interests. Lack of self-knowledge implies either learners do not consult on issues that relate to their future selves or teachers do not deliberately discuss career matters as they teach their various subjects. Specifically, learners at high school level should understand why they are choosing the subjects they would major in for completion of their secondary education. Failure to be guided on careers at this level would affect successful transition from school to the world of work.

6.4 Recommendations

The need for learners with visual impairment to develop their vocational self-concept and decision-making self-efficacy is not an overstatement. These learners need to experience successful transition from school to the world of work. In order to attain social inclusion, they need to have knowledge, skills and attitudes towards work that would enable them to compete favourably in the labour market. Occupational knowledge, skills and attitudes may not be accomplished in a short-term guidance program, rather needs a comprehensive process that integrates vocational development in the learning process.

6.4.1 Recommendations to the Ministry of Education

The ministry of education should strengthen the guidance and counselling section at the Ministry in order for it to organize intensive training of career counsellors who should then be deployed to all schools to specifically oversee the vocational development of all learners.

The Kenya Education Sector Support Programme (2005-2010) had proposed that it would issue schools with career booklets so that learners can be exposed to occupations available in the labour market. These booklets should be universally designed to meet the needs of all learners including those with special needs. The booklets should be prepared in mediums that include Braille and large print.

Kenya's Directorate of Quality Assurance and Standards need take the issue of career guidance and counselling as critical by applying Curriculum Based Establishments (CBE) that take into account time for career guidance and counselling. The directorate personnel should, guide, supervise and reinforce quality guidance and counselling in general, but still emphasize career guidance.

Teacher-counsellors should be relieved some of the work load so that they can have ample time to relate with learners, establish rapport and win the learners

confidence when they become consistently available for both career guidance and counselling. Overloaded teachers may not have enough time to deal with students' career problems. When the learners' problems are not consistently addressed learners lose faith in teachers and may even think they are incompetent.

6.4.2 Recommendations to the School Administration

The principal in a school is the government's agency in overseeing that curriculum implementation is appropriately done. The principal should therefore advise the government on the personnel needs in his or her school. Understaffing in many schools make curriculum implementation difficult and teachers would not be persuaded to integrate career education in the curriculum.

Financial resources are also procured by the administration. Thus the school principal can play a major role in soliciting funds from the government and the community to enhance learning. Networking with community labour agencies so that learners can gain exposure in what is happening in the local labour market will need the efforts of the school administration.

The principal should also be supportive to the guidance and counselling process by providing required resources and soliciting for the inadequacies. There should be democratic working atmosphere where capacity building will facilitate teamwork to ultimately enable the career guidance process to be a concern of subject teachers and the career counsellor.

6.4.3 Recommendation to Teachers

Teachers should try as much as possible to associate what learners are currently learning to future careers to make education meaningful. Furthermore, teacher counsellors should be more aggressive in sensitizing learners on the importance of seeking career guidance and counselling. They should seek more information on

how to assess aptitudes and career interests of their learners so as to guide them accordingly

In addition, teachers should involve parents in issues affecting learners such as their aspirations and academic achievement as well as trying to find out parental expectations of their children with disabilities. Specifically, teachers should seek further training in guidance and counselling so as to build up their confidence and professionalism in the career guidance and counselling field.

6.4.4 Recommendations to Parents

Parents should work closely with teachers so as to share information concerning the aspirations of their children with disabilities and advocate on how their children can attain their set goals. Especially, fathers of learners with disabilities need to be more involved in the education of their children because they do not seem to have any impact on their children's development of vocational self-concept or decision-making self-efficacy. Research indicates that when fathers are involved in the education of their children with disabilities, the children tend to perform even much better than when mothers are involved (Hietsch, 1986).

6.4.5 Recommendation for Further Research

Further research is recommended on occupational adaptations that can help widen the scope of career choice for learners with visual impairment.

6.4.6 Limitations of the research

The major limitation of this research was lack of adequate representative sample in some of the institutions. For instance integrated secondary schools had very few students such that the data generated could not be analysed as was generated without bias. The researcher was therefore forced by circumstances to collapse some categories to eliminate the perceived bias. Secondly, the problem being

investigated could probably yield richer results if it was subjected to a longitudinal design.

6.5 Suggested Outline for a Career Guidance and Counselling Component

6.5.1 Introduction

One interesting finding of this study was that the effect of visual impairment was not highly significant to the development of vocational self-concept and decision-making self-efficacy. Even though the effect of the school and mother education were established as significant, the impact was only visible at secondary level and Mother's education influence was only at university level. Lowenfeld (1979) suggested three major limitations imposed by visual impairment:

1. Limitation in range and variety of experiences,
2. Limitation in the ability to move about safely in the environment
3. Limitation to control the environment and the self in the environment.

These limitations impose themselves in most developmental aspects and therefore it would be expected that the same limitations affect the development of vocational self-concept and decision making self-efficacy. Lack of awareness on how these three limitations affect vocational development may be interpreted as having emanated from minimal career guidance and counselling. This is consistent with Irungu (2008) who found that learners with visual impairment at high school level were reluctant in seeking guidance and counselling services. Although learners seemed to lack trust in the counselling services, it could also imply they had not acquired value for guidance and counselling right from the primary level.

Considering that majority of learners with visual impairment have their terminal education at primary level, the implication is that many learners leave school with minimal development of vocational self-concept and decision-making self-

efficacy. They may therefore proceed to rehabilitation centres without decision-making skills and are therefore vulnerable to adhering to dependent decisions that they later despise, consequently abandoning careers they were trained for and end up engaging in begging in major towns.

Establishing adequate vocational self-concept and decision-making self-efficacy requires that learners are provided with developmental career guidance and counselling program starting from primary school, through high school, and college. The suggested component, takes a cross categorical approach to move away from categorical career guidance that most often propel learners to stereotypic thinking that certain careers are for certain categories of learners with disabilities.

In this cross categorical approach, career guidance is interpreted not only to include the acquisition of occupational skills, but also the development of attitudes, knowledge and self-concept which can facilitate decision-making, career choice and life adjustment. The developmental approach would therefore, be sequential, starting from primary level, through high school experiences, bridging the gap between education and the world of work. This component thus takes into account the total growth and development process of the individual, including practically oriented academic subjects, family relationships, social and community activities, personal social behaviour as well as employment. In this light, the classroom, the home, the community and the world of work, become part of the learning environments.

The proposed career guidance and counselling component, therefore, gives significance to academic subjects by stressing their practical aspects. It tries to interpret work ethic in its ability to facilitate the feeling of usefulness and personal worth. Learners with disabilities should realize their right to the

opportunity for earning a living and make a contribution to society. They should also realize their right to leading meaningful lives. Career guidance and counselling in the present time of social inclusion would aim at taking the ‘special’ out of special education in order to bring the learner with disability closer to equal participation in the world of work with peers without disabilities. In this era of inclusion, society has the obligation to equalize this opportunity through special services to persons with disabilities so that they may earn a living and become integrated into society.

6.5.2 Elements of the Career Guidance and Counselling Programme

1. Relating academic subjects to activities of daily living – Learners can be engaged in comparative shopping, budgeting, banking and filling banking slips, sending and withdrawing money.
2. Relating academic subjects to the world of work and adult living roles – Learners can be introduced to relationships between education and work. Learners can be given activities that may include measurements, making simple garments, craft items made from locally available materials, keeping school gardens and domestic animals such as chicken and rabbits.
3. Basic orientation to the world of work – Can be provided through field excursions, use of local resources through apprenticeships and work study programs. Learners can be left behind during the school holidays to participate in work study programs that will make them earn a little money but most of all gain hands on experiences on job demands along their interests, abilities and limitations.

6.5.3 Purposes of the Elements of Career Guidance and Counselling Programme for Learners with Disabilities

The purposes of the elements of career guidance and counselling for learners with disabilities can be expressed as follows:

1. To encourage learners with disabilities to evaluate their own interests, strengths and limitations in the process of forming a satisfying and realistic self-concept.
2. To encourage a vocational behaviour that lies within the individual learner's abilities.
3. To enable learners develop attitudes, habits, knowledge and skills they need to become valued family members, successful employees and responsible citizens.
4. To facilitate decision-making skills applicable to resolving family and social problems, as well as making career choices.
5. Career guidance at high school level would provide the learner with the expected work experiences to the fullest extent possible to enable him or her compete favourably in the labour market.

6.5.4 Objectives of the Career Guidance and Counselling for Learners with Disabilities

In order to facilitate the development of vocational self-concept and decision-making self-efficacy of learners with disabilities, career counsellors would work on the following objectives:

By the end of the program Learners would be able to:

1. Use to the maximum their capabilities in the basic academic subjects in application of communication skills, numerical concepts, skills to solve problems on their encounters in everyday living situations, and acquire habits of safe and healthy living including basic skills in personal hygiene, proper grooming and etiquette.
2. Recognize their interests, assets and limitations, neither overestimating nor underestimating their abilities and be able to perform at some level despite limitations.

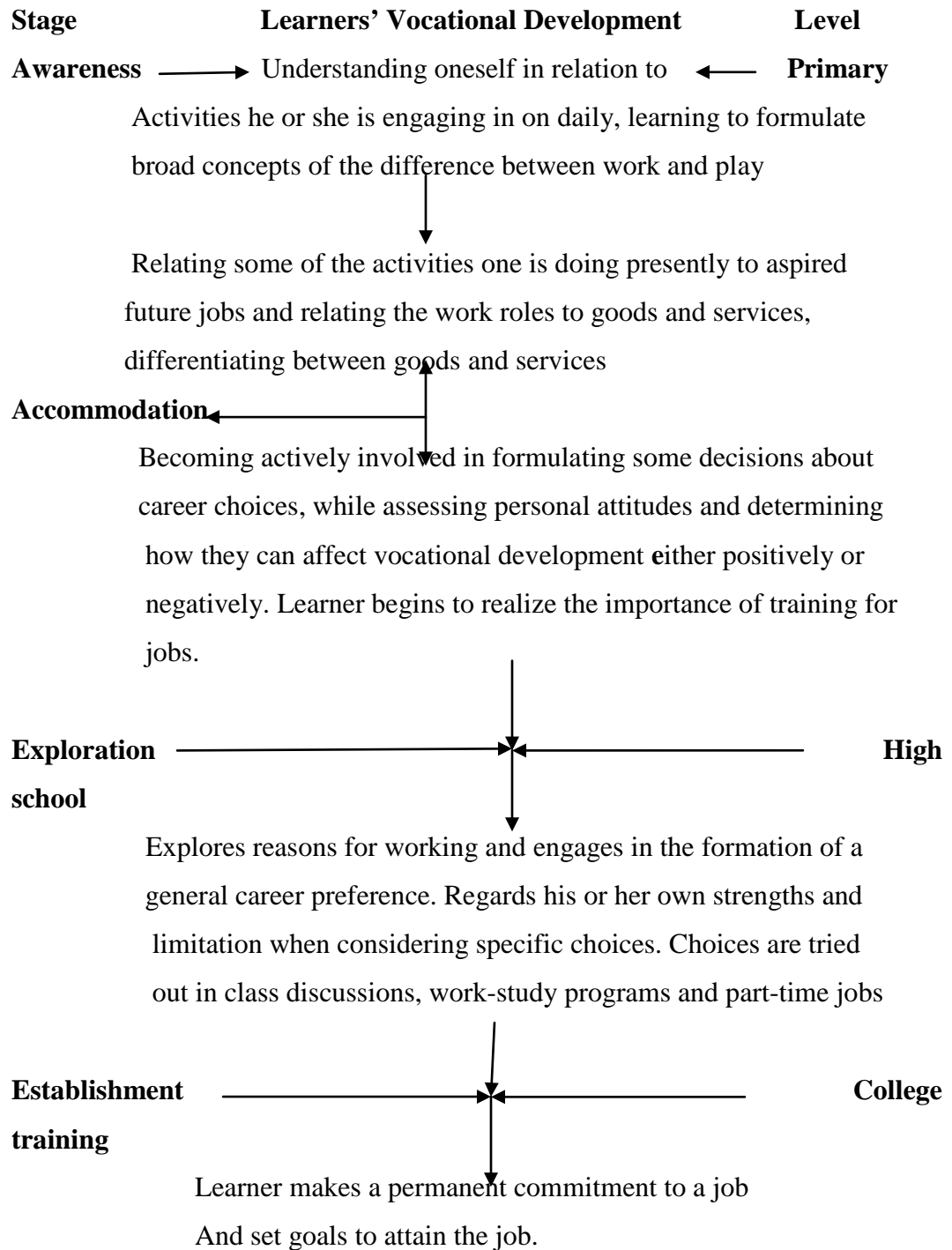
3. Compare their personal profiles of strengths and weaknesses with job requirements and then exercise skills in choosing career options as well as changing career decisions, while identifying different kinds of jobs and their related fields of work available in relation to their specific interests.
4. Demonstrate confidence in their ability to perform a variety of jobs and maintain a positive view of themselves as productive and have an opportunity to increase their manual dexterity by performing certain routine jobs.
5. Show that work has dignity through appreciation and respect for all types of jobs in all levels of work, and express that every job is important and has social usefulness.
6. Explain the importance of performing a job to the best of one's ability which, in turn, raises self-esteem and provides better self-understanding.
7. Learn about the immediate community and its resources which the learner can utilize to find employment or participate in wholesome leisure time activities, as well as demonstrating special skills needed for a particular occupation within one's potential.

Murugami's Vocational Development Model (2010)

Introduction

This model is intended to guide teachers and career counsellors on how to follow vocational development stages of learners with disabilities as they progress in their education. Various transitional levels are crucial check points for assessing whether learners portray desirable vocational development and identification of possible lags in order to implement appropriate intervention measures.

Fig 6.1 Framework for Vocational Development Model



It is important to note that the frame work shows moves across transitions from primary to secondary to college towards joining labour market with continuity.

6.5.5 Suggested Sequence for Vocational Development Content

Teachers and career counsellors need to facilitate the development of vocational self-concept and decision-making self-efficacy through a carefully designed career guidance program that is sensitive to developmental sequence and maturation. The following sequence is suggested in view that the counsellor and teacher may come up with particular sequences that would meet the needs of individual learners.

1. Self-Knowledge enhancement as learners engage in daily activities so as to attain awareness of individual characteristics, specific strengths and limitations in relation to work and development of proper social relations.
2. Vocational/occupational information to help learners with disabilities relate activities done in present times to future roles or jobs and appreciate work as a productive way of live. Occupational information would help these learners be aware of career clusters and gain the understanding that all work and all jobs are important. They will also become awareness that work can be part time or volunteer as well as the concept of self-employment. Learners with disabilities will learn that jobs require different kinds and levels of training.
3. Problem-solving and decision-making skills are equally important for learners with disabilities for their formulation of a general career preference. They need to appreciate the importance of performing a job to the best of one's ability and realize that both men and women can work in various occupations. With adequate decision-making skills learners with disabilities are likely to understand that each person is a 'unique' individual with unique 'work interests'. They may also be able to understand that people work for different reasons. Development of decision-making self-efficacy would enhance learners' job seeking skills and job maintenance. Learners with disabilities need to be awareness of career ladder in reference to job advancement, so that they can direct their

aspirations towards job mobility and the courage to embrace the fact that the world of work is always changing and they can move with change.

6.5.6 Career Guidance and Counselling Support Services

An effective career guidance and counselling process, would need a team approach and networking with parents and community resources. The following would be useful support personnel who would supply various services required during the implementation of the program: school administration; career counsellor; special education teacher; occupational/physiotherapist; speech therapist; Interpreters; Readers; teacher aids and parents.

6.5.7 Limitations of the career development model

The career development model is limited by the fact that it was based on a study of a single category of learners. It was not feasible to include all categories due to financial, time and also familiarity constraints.

6.5.8 Generalization of the model to learners with disabilities

There are strong arguments in support of the assumption that there is no clear dichotomy between types of counselling approaches that are relevant for persons with disabilities and for those without disabilities. The complexity of vocational counselling is reduced to a single approach. There is solid justification for this approach and a general consensus, emerges on the basic principle of integration and multidisciplinary service models that take into consideration the human aspect of each individual. Similarly, Mengistu, (1994: 40) asserts that the utility of separate provisions and treatments for persons with disabilities and those without disabilities would incur an artificial discrimination that has negative consequences.

6.6 Concluding Remarks

The transition from school to work is a huge challenge for learners with disabilities because they are often not sufficiently prepared for the world of work in the changing labour market. They are not able to ‘fit’ in the competitive labour market. Consequently, many persons with disabilities end up begging in major towns. Begging earns persons with disabilities labels such as ‘the less privileged’; ‘the unfortunate members’ or ‘the disabled’. These labels are exclusionary and degrading. In this era of inclusion, the only way of rescuing persons with disabilities from these practices is to prepare them well for the world of work so that they can be integrated into the workforce and become assets of their communities.

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College	<input type="checkbox"/>	Semi-professional	<input type="checkbox"/>
University	<input type="checkbox"/>	Professional	<input type="checkbox"/>

(c) Mother's educational level		(d) Mother's occupation	
Primary	<input type="checkbox"/>	Unskilled	<input type="checkbox"/>
Secondary	<input type="checkbox"/>	Skilled	<input type="checkbox"/>
College	<input type="checkbox"/>	Semi-professional	<input type="checkbox"/>
University	<input type="checkbox"/>	Professional	<input type="checkbox"/>

Read each of the following statements carefully and indicate how much confidence you have that you will accomplish each task. You will show your confidence level in the following manner:

- (1) No confidence
- (2) Little confidence
- (3) Moderate confidence
- (4) Some confidence
- (5) Complete confidence

Please circle the number that best expresses how confident you feel you can accomplish the task.

ITEMS:

- q1. List four occupations you are interested in and indicate your level of confidence in each. 1 2 3 4 5
- q2. Indicate four subjects you would like to pursue and indicate your level of confidence in each. 1 2 3 4 5
- q3. How confident are you in making a plan of your goals for the next four years? 1 2 3 4 5
- q4. Indicate steps you would take if you are having academic trouble with the subjects you have chosen. 1 2 3 4 5

- q5. How confident are you in assessing your abilities? 1 2 3 4 5
- q6. Select one occupation from the list of your preferred occupations that you like most. 1 2 3 4 5
- q7. Would you persistently work at your subjects or career goal even when you get frustrated? 1 2 3 4 5
- q8. Are you sure of what your ideal job would be? 1 2 3 4 5
- q9. List five jobs persons with visual impairment engage in over the past five years. 1 2 3 4 5
- q10. Is there any of the job you have listed that will fit what you would like to be? 1 2 3 4 5
- q11. Would you be willing to change subjects if they do not fit in your best job choice? 1 2 3 4 5
- q12. State what you would value most in an occupation. 1 2 3 4 5
- q13. Indicate four highly paid jobs and how much money people in these occupations earn. 1 2 3 4 5
- q14. Make a career decision on your own and do not worry about whether it was right or wrong. 1 2 3 4 5
- q15. Would you be willing to change occupations if you are not satisfied with the ones you enter? 1 2 3 4 5
- q16. Indicate what you are and are not ready to sacrifice to achieve your career goals? 1 2 3 4 5
- q17. Would you like to talk with a person already employed in the field you are interested in? 1 2 3 4 5
- q18. Identify employers, firms and institutions relevant to your career possibilities. 1 2 3 4 5
- q19. Can you be able to find information about higher education or professional schools? 1 2 3 4 5

- q20. Can you successfully manage a job interview process? 1 2 3 4 5
- q21. Define the type of life you would like to live in future 1 2 3 4 5
- q22. What would you do if you were not able to get your favourite job? 1 2 3 4 5
- q23. Would you be willing to find a job on your own? 1 2 3 4 5
- q24. Do you think your favorite job will fit your interests 1 2 3 4 5
- q25. What are some of the good things you would get from this job? 1 2 3 4 5

D. University

D. Professional

(c) Mother's educational level (d) Mother's occupation

A. Primary

A. Unskilled

B. Secondary

B. Skilled

C. College

C. Semi-professional

D. University

D. Professional

Read each of the following statements carefully and indicate how much confidence you have that you will accomplish each task. You will show your confidence level in the following manner:

- (A) Complete confidence
- (B) Some confidence
- (C) Moderate confidence
- (D) Little confidence
- (E) No confidence

Please write down the letter that best expresses how confident you feel you can accomplish the task.

ITEMS:

1. List five occupations you are interested in and indicate your level of confidence in each one of them.
2. Indicate five subjects you would like to pursue and indicate your level of confidence in each.
3. How confident are you in making a plan of your goals for the next five years?
4. Indicate steps you would take if you are having academic trouble with the subjects you have chosen.
5. How confident are you in assessing your abilities?

6. Select one occupation from the list of your preferred occupations that you like most.
7. Would you persistently work at your subjects or career goal even when you get frustrated?
8. Are you sure of what your ideal job would be?
9. List five jobs persons with visual impairment engage in over the past five years.
10. Is there any of the jobs you have listed that will fit what you would like to be?
11. Would you be willing to change subjects if they do not fit in your best job choice?
12. State what you would value most in an occupation.
13. Indicate five highly paid jobs and how much money people in these occupations earn.
14. Make a career decision on your own and do not worry about whether it was right or wrong.
15. Would you be willing to change occupations if you are not satisfied with the ones you enter?
16. Indicate what you are and are not ready to sacrifice to achieve your career goals?
17. Would you like to talk with a person already employed in the field you are interested in?
18. Identify employers, firms and institutions relevant to your career possibilities.
19. Can you be able to find information about higher education or professional schools?
20. Can you successfully manage a job interview process?
21. Define the type of life you would like to live in future
22. What would you do if you were not able to get your favourite job?

23. Would you be willing to find a job on your own?
24. Do you think your favourite job will fit your interests?
25. What are some of the good things you would get from this job?

**APPENDIX B
INTERVIEW**

VDMI Questions and scoring sheet (for all the learners with a visual impairment)

Interview questions	Scoring criteria	Observation notes	score
1. Are there jobs you have been thinking about getting?	Explained in the interview sheet.		0 or 1
2. How much education or training is needed for the jobs you are thinking about?			
3. How much work experience do you need for the jobs you have been thinking about?			
4. What kind of things will you be doing in the jobs?			
5. What are the important job duties or behaviours for the jobs you have been thinking about?			
6. What are some differences between the jobs you have been thinking about?			
7. What are some of the good things you could get from the jobs?			
8. What fringe benefits should you consider when deciding on jobs?			
9. What are some jobs that you would not like to do?			
10. What advantages would help you decide to take one job over another?			
11. What disadvantages would help you consider taking one job over another?			
12. Where can you get information about different jobs?			
13. What persons or person would you ask for more information about jobs?			
14. How would you find out which jobs you would like and			

could do?			
15. Suppose somebody offered you a job. How would you decide whether to take it or not?			
16. If you were offered two jobs, how would you decide which one to take?			
17. Would you be good at choosing a job on your own?			
18. Have you thought of other jobs you might like to have?			
19. What kind of career would like to do for the rest of your life?			
20. Would you take a job your friends and family would not want you to? Explain			
21. Would you like others to decide what jobs you should take? Why? Why not?			
22. Do you feel that your friends or family are not helping you find a job?			
23. Would your friends and family be proud of you if you got a job?			
24. Do you think the kind of job you get will pay enough to make it worth the trouble?			
25. Is money one of the reasons to look for a job?			
26. Would you move to a different place to get a job if you had to?			
27. Could you find a way to get to and from work? Explain.			
28. Does it seem like you have too few job choices because it is hard for you to get around?			
29. How much money do you need to earn from a job?			
30. Is there a place in particular, where you like to find a job?			
31. What kind of jobs would you not do even if they paid a lot of money?			

32. What personal needs do you have and how would they affect the jobs you would like to take?			
33. What interests (things you like to do) would help you to decide on a job?			
34. What beliefs and values are important to include in your job choice?			
35. Are there any jobs you would not take because of things that are important to you?			
36. What abilities do you have that will help you decide on a job?			
37. What types of work are you good at doing?			
38. What kinds of work would you be good at, if you had more training?			
39. How does your blindness limit the type of work you can do?			
40. Do your opinions or beliefs about yourself change a lot?			
41. Describe the kind of life you want for yourself.			
42. What do you know about yourself (your personality) that would help you decide about a job?			
43. How have your past decisions about taking a job worked out?			
44. Is deciding about jobs unpleasant for you?			
45. Have other people disagreed with you over decisions about a job?			
46. Have you ever had to decide whether you wanted to take a job or not?			
47. Do you believe that you will get a job even if you don't try hard to find one?			

48. Do you think other people can make better decisions for you about a job than you can for yourself?			
49. Does thinking about job decisions make you upset?			
50. Which is better: to just let things happen or to try to make a job choice?			
51. Are you sure of yourself when you have to make decisions about jobs?			
52. Of all the things I have asked you about, which would you say are the most important in making a good choice of a job or career?			
53. Of all the things I have asked about, which would you like help with, to make a job choice?			
54. In general what are your reasons for wanting or not wanting a job now?			

FREQUENCY TABLES

Table on the distribution of the sample subjects

Institution	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Thika primary school for the blind	37	28.91	37	28.91
Kilimani integrated program (Nrb)	9	7.03	46	35.94
Thika High School for the blind	75	58.59	121	94.53
Moi Nairobi Girls High integrated	2	1.56	123	96.09
Kenyatta University	4	3.13	127	99.22
Industrial Training Centre for VI	1	0.78	128	100.00

Distribution of subjects across classes

Class	Frequency	Percent	Cumulative Frequency	Cumulative Percent
6	21	16.41	21	16.41
7	25	19.53	46	35.94
10	35	27.34	81	63.28
11	42	32.81	123	96.09
13	5	3.91	128	100.00

NB/ class 6 and 7 were at the primary school level
 Class 10 and 11 at high school while
 Class 13 were university learners.

Age distribution of sample subjects

Age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
13	2	1.56	2	1.56
14	3	2.34	5	3.91
15	12	9.38	17	13.28
16	7	5.47	24	18.75
17	12	9.38	36	28.13
18	11	8.59	47	36.72
19	23	17.97	70	54.69
20	22	17.19	92	71.88
21	11	8.59	103	80.47
22	10	7.81	113	88.28
23	9	7.03	122	95.31
24	3	2.34	125	97.66
25	1	0.78	126	98.44
27	1	0.78	127	99.22
28	1	0.78	128	100.00

Age	Frequency	Percent	Cumulative Frequency	Cumulative Percent
< 18 yrs	36	28.13	36	28.13
18-19 yrs	34	26.56	70	54.69
20 yrs	22	17.19	92	71.88
21-22 yrs	21	16.41	113	88.28
23+ yrs	15	11.72	128	100.00

Gender distribution

Gender	Frequency	Percent	Cumulative Frequency	Cumulative Percent
female	60	46.88	60	46.88
male	68	53.13	128	100.00

Distribution by type of impairment

Type of impairment	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Totally blind	64	50.00	64	50.00
Low vision	64	50.00	128	100.00

Distribution by the onset of impairment

Onset of impairment	Frequency	Percent	Cumulative Frequency	Cumulative Percent
congenital	80	62.50	80	62.50
adventitious	48	37.50	128	100.00

Distribution by father's level of education

Father's education	Frequency	Percent	Cumulative Frequency	Cumulative Percent
primary	27	29.35	27	29.35
secondary	24	26.09	51	55.43
college	26	28.26	77	83.70
university	15	16.30	92	100.00

Distribution by father's occupation

Father's occupation	Frequency	Percent	Cumulative Frequency	Cumulative Percent
unskilled	35	36.46	35	36.46
skilled	23	23.96	58	60.42
semi professional	22	22.92	80	83.33
professional	16	16.67	96	100.00

Distribution by mothers' level of education

Mother's education	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Primary	31	27.43	31	27.43
Secondary	42	37.17	73	64.60
College	28	24.78	101	89.38
University	12	10.62	113	100.00

Distribution by mothers' occupations

Mother's occupation	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Unskilled	51	43.97	51	43.97
Skilled	29	25.00	80	68.97
semi professional	28	24.14	108	93.10
Professional	8	6.90	116	100.00

Distribution of respondents' role models

Role model	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Teacher	24	20.34	24	20.34
Doctor	12	10.17	36	30.51
Lawyer	30	25.42	66	55.93
Lecturer	6	5.08	72	61.02
Judge	1	0.85	73	61.86
Musician	8	6.78	81	68.64
Engineer	2	1.69	83	70.34
Nurse	2	1.69	85	72.03
Pilot	1	0.85	86	72.88
Writer	2	1.69	88	74.58
Newscaster	6	5.08	94	79.66
Farmer	2	1.69	96	81.36
Politician	17	14.41	113	95.76
Journalist	1	0.85	114	96.61
Clerk	1	0.85	115	97.46
President	1	0.85	116	98.31
Actor	1	0.85	117	99.15
Counselor	1	0.85	118	100.00

Frequency Missing = 10