Professional Challenges encountered by Teacher Trainees with Visual Impairments in Asumbi and Machakos Teacher Training Colleges

By

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

To my dear patient daughter Yvonne. My beloved friends who encouraged me throughout the study and to all those teacher trainers trying to assist learners with visual impairments.
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I hereby acknowledge Teacher’s Service Commission for granting me leave to pursue my studies at Kenyatta University.

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ABBREVIATIONS
KISE - Kenya Institute of Special Education
UNISE - Uganda National Institute of Special Education
KAPE - Kenya African Preliminary Examination
CRE - Christian Religious Education
P1 - Primary 1 Teacher Certificate
ABSTRACT

The purpose of the study was to investigate academic challenges encountered by trainees with visual impairments at Asumbi and Machakos Teachers Colleges. The researcher specifically sought to investigate on the professional challenges encountered by teacher trainees with visual impairments, teaching problems encountered by tutors of learners with visual impairments, availability and adequacy of learning resources and the attitude of tutors towards learners with visual impairments. The study was guided by David Kolb’s Experimental learning theory, (1994) and related literature was reviewed under the following main topics:

- General education of persons with visual impairment
- Teacher education
- Teacher
- Inclusion of trainees with visual impairments in Kenya
- attitudes towards persons with disabilities

The target population of the study comprised teacher trainees and tutors at Asumbi and Machakos teacher training Colleges. Purposive sampling technique was used. The study used a descriptive research design with a survey approach for collecting data. Three sets of questionnaires were used to collect data, one for the sighted teacher trainees, one for teacher trainees with visual impairments and another for tutors. To determine validity and reliability of the instrument, Piloting of the questionnaires was done at Machakos Teachers College with students who were not going to be included in the main study. Data was analysed using both qualitative and quantitative methods. Descriptive statistics that was, frequency distribution, mean and percentages were used. The findings indicated that there are no proper arrangements put in place to cater for the needs of teacher trainees in teacher training colleges in Kenya. Therefore there was need to prepare all the communities who interact with these trainees during their training. There was also evidence that tutors lacked knowledge and skills to assist trainees with visually impairments. There was a lot of delay in giving feedback to the trainees with visually impairment as compared to their counterparts.

The following were the recommendations arrived at after the analysis of the data.

- In order to minimize professional challenges faced by teacher trainees with visual impairments, colleges should be prepared in terms of facilities, resources and personnel who are well trained in the area of special needs in education.
- The government should ensure that reading materials and other resources for use by teacher trainees with visual impairments were readily available.
- There should be frequent seminars and workshops organized for trainers of teacher trainees with visual impairment to equip them with the necessary skills.
- That teachers and pupils where students with visual impairments carry out their teaching practice were prepared before hand so that they were not negative towards those students.
- Schools where teacher trainees carry out their teaching practice should be prepared before hand so as to have positive attitude towards them.
- Technical challenges faced by students with visual impairments in Kenyatta University.
- Professional challenges encountered by teachers with visually impairments teaching in regular primary schools in Kenya.
CHAPTER ONE:
INTRODUCTION

1.1 Background to the study

The term African Indigenous Education has come to be used in reference to that education system that existed in Africa before the introduction of what is today known as formal education. It is indigenous because it was born at the African scene as opposed to the current formal education which was introduced by Arabs and Europeans (Gitau, 1996).

Before the arrival of Arabs and Europeans in Africa, the young learned skills, gained knowledge and developed the attitudes, beliefs, values and practices of their society. They also learned how to adjust to the various situations that confronted them in their total environment. Indigenous education aimed at making a person a functional member of society. Africans were involved in intellectual exercises through the use of proverbs, riddles and lullabies taught through stories. Character development was given central emphasis in African indigenous education. A combination of methods was used to foster the desired character. Among the methods used was oral instruction, which could be in the form of stories depicting the character desired. Punishment and reward was another method of guiding the individual to the desired character. Work and play opportunities provided a medium of instruction on character (Gitau, 1996).

African indigenous education had a curriculum based on real life. Everything taught had relevance to the life and culture of the community. Thus, the curriculum fostered the spirit for customs, traditions and cultural heritage of a society. The first mission school was established in 1840 at Rabai, near Mombasa. Missionary education was linked to christianity.
At first its major aim was to produce African priests to spread the word of God. Africans were to be enlightened so that they could read the Bible and assist in spreading Christianity and western civilization to fellow Africans.

Africans were also taught to read and write so that they could communicate easily with the missionaries and colonial administrators as well as serve as interpreters whenever necessary. Missionaries controlled education in Kenya up to 1911 when the British colonial government stepped in. The introduction of western schooling and its influence faced the Africans with difficulties some of which remain unsolved today. The chief of these was the need to create an education system suited to their needs.

Neither the missionaries nor the colonial administration made any real attempt to link Africans to their cultural heritage. Initially, the missionaries were out to convert and regarded African culture as an obstacle to Christianity. The colonial administration wanted Kenya to become self-sufficient as quickly as possible and tended to act as if it agreed with the colonial settlers that this could best be achieved if the Africans were educated to form a largely labouring and clerical class.

The government's policy of trusteeship and indirect rule seemed to be in accord with the settlers' paternalistic attitude towards the Africans so both settlers and officials were in agreement with a policy of rapid advance for the Europeans and gradual advance for the Africans in education (Eshiwani, 1993).

Education of persons with visual impairments did not exist until March 1941 when two colonial settlers approached the Salvation Army asking if they could start a welfare service for children with visual impairments. The Salvation Army officers in Nairobi had to seek
permission from their headquarters in London. Following the approval, two Salvation Army officers were appointed to take over the task. The same two settlers had started a school for the blind at Kingston, Jamaica in 1938. On August 11th, 1942, two students were received in Nairobi at the Salvation Army Headquarters to begin their training. In 1946, a school that could hold a greater number of students was opened at Thika under the leadership of Salvation Army officers. It was established so that it could cater for soldiers who had been wounded and lost their sight during World War 2. The early training of visually impaired persons as prospective teachers began in the first residential school for the blind in Thika. The Salvation Army official in charge, along with other officers, chose four students who had completed their primary education and trained them as teachers. Later in 1959, two more students were enrolled (Kenya Institute of Special Education Bulletin, 1989).

The entry requirements for the training were Kenya African Preliminary Examination (K.A.P.E). The grade given on completion was primary three (P3) which was the lowest grade given to trained teachers. This training was mainly based on teaching visually impaired teacher trainees. The training took a period of two years under the supervision of their tutors. Their final assessment was done by an inspector from the Inspectorate, Ministry of Education. Though the trainees lived in the residential school for the blind, their classroom and sleeping rooms were separate from those of the school children. After they qualified as teachers, the training stopped.

From 1974 to 1981 no visually impaired person was trained as a teacher. In the late 60s, after Kenya's independence from Britain, blind students started joining teacher-training colleges. The first college to integrate students with visual impairments was Thogoto in Kiambu District for P1 certificate. Their success opened a new chapter in the training of visually
impairments people in regular teacher training colleges. In the early 70s, more colleges opened their doors for integration of students with visual impairment. These colleges were Siriba, Kilimambogo, Kigari and Kisii Teachers’ Colleges. To join those colleges one had to have the necessary entry requirement, which was a pass in ‘O’ level examinations. (Kenya Institute of Special Education, 1987).

During the two-year period of training, trainees with visual impairments dealt with the teaching of sighted children. The unfortunate thing was that after their training, they all wanted to go back and teach in the special institutions and had no confidence in teaching in the regular schools. Due to the increasing number of teachers who were visually impaired in schools for the blind, the Ministry of Education had to stop training them for sometime and laid a condition that any person with visual impairments who wished to train as a teacher should accept to teach in regular schools. That policy was accepted and in the early 80’s two teacher’s training colleges were allowed to integrate teacher trainees with visual impairments for P1 certificates, Asumbi and Highridge Teachers Colleges. P1 certificate was the highest grade awarded to teachers after completion of the training.

The consolidation of the training process for teachers in Kenya had improved the qualification and quality of primary teachers. The colleges were better equipped with resources for learning and for informal activities. In all the government run colleges, the centralised and both the academic and professional courses in education lasting two years were being offered. The assessment and certification of students’ teachers was also centred through one external council (Eshiwani, 1993).
Teacher trainees with visual impairments who were admitted in colleges followed the same curriculum as their sighted peers; in some cases tutors who taught them had no special education background. At the end of every term those students did the same exams with the other students except that the mode of reading was different. Trainees with visual impairments also took part in teaching practice which was carried out in regular primary schools.

1.2 Statement of the problem

Many teacher trainees with total loss of vision in Primary Teachers’ Colleges did not perform as expected in both their academic work and in teaching practice. That poor performance could be attributed to practical subjects and teaching methods, which have not been adapted to suit their needs. Poor performance was evident in the 2008 PTE results from Machakos Teachers Training College where out of 17 teacher trainees with visual impairments, only 9 passed and the other 8 failed.

In view of the above, the study was therefore going to investigate professional challenges encountered by teacher trainees with visual impairments in Machakos and Asumbi Teacher Training Colleges.

1.2.1 Purpose of the study

The general purpose of the study was to investigate professional challenges faced by teacher trainees with visual impairments in Asumbi and Machakos Teacher Training colleges. The study further looked into attitudes of both tutors and sighted teacher trainees towards teacher trainees with visual impairments.
1.3 Objectives of the study

Specifically the study was to achieve the following objectives:

(a) Identify professional problems encountered by teacher trainees with visual impairments.

(b) Identify teaching challenges encountered by tutors of teacher trainees with visual impairments.

(c) Ascertain the availability, suitability and adequacy of learning resources in relation to special needs of students with visual impairments.

(d) Determine the tutors’ opinion towards teacher trainees with visual impairments in professional performance.

1.4 Research questions

(a) What professional problems do teacher trainees with visual impairments encounter at Machakos and Asumbi teacher training colleges?

(b) What were the teaching challenges encountered by tutors of students with visual impairments.

(c) What learning resources were available, suitable, and adequate in relation to special needs of students with visual impairments?

(d) What was the tutor’s attitude towards teacher trainees with visual impairments in professional performance?

1.5 Significance of the study

The study aimed at identifying training challenges faced by teacher trainees with visual impairments at Machakos and Asumbi Teacher Training Colleges’. In Kenya, the study was of particular significance because of the current initiation of free primary education, which
required more trained personnel. It was important to be aware of factors that enhance learning in teacher training colleges for all prospective teachers.

Although all teacher-training colleges in Kenya used the same syllabus, students differed in terms of individual needs and particularly for teacher trainees with visual impairments. The results of the study might be beneficial to tutors in primary teachers' colleges, universities, and teachers of the blind and researchers of learning in general. The study was also likely to stimulate further research by other scholars in the era of inclusion in order to address the issue of adaptations, which would enable teacher trainees with visual impairments to go through their education with their sighted peers with minimal problems. The researcher hopes the study would be useful to the Ministry of Education and Kenya Institute of Education in the development of curriculum.

1.6 Limitations of the study

Scanty literature was a problem because little research was in the area of the training of teachers with visual impairments. The fact that the researcher was visually impaired; the need for a sighted guide had significant financial implications and a lot of time for planning.

1.6.1 Delimitations

Weather conditions were favourable and all the respondents were cooperative. In addition, means of transport were readily available.

1.7 Assumptions of the study

The researcher assumed that the sample was a representative of the whole population, and all respondents would be cooperative and provide reliable responses. It was also assumed that
means of transport would be available and that the weather conditions would be favourable during data collection period.

1.8 Theoretical Framework

The theoretical framework of the study was drawn from David Kolb's Experiential Learning Theory (1984) which stipulated that learning is made up of two dimensions – prehending or grasping information, and transforming or processing that information. The prehending dimension ranges from concrete experience to abstract conceptualisation. The transforming dimension ranges from reflective observation to active experimentation. Kolb suggested that learning occurs as the individual moves through a cycle of concrete experience, reflective observation, abstract conceptualisation, and active experimentation.

Fig. 1.1 Theoretical framework
Learning process

Kolb (1984) described learning as a four-step process. Teacher trainees had immediate *concrete experience*, involving themselves fully in the experience and then reflecting on it from different perspectives. After those *reflective observations*, they engage in *abstract conceptualisation*, from which they developed generalisation that helped them integrate their observations into sound theories or principles. Finally, teacher trainees used those generalisations as guides to further action, or *active experimentation*, and experiment in new, more complex situations with what they had learned. Then they had another concrete experience and the cycle began again, but that time the learner operates at a more complex level. Thus, the experiential learning theory was a cycle but it was best thought of as a helix, with teacher trainees having additional experiences, reflecting on them, making generalisations about the experiences, and then using those as guides to further action at increasing levels of complexity.

Kolb (1984) suggested that in early life, people were primarily engaged in acquiring information and basic skills needed for effective functioning. By adolescence, people came to deal with situations in characteristic ways and developed certain preferences in terms of how they grasped, experienced and transformed it.

The principle of Kolbs Experiential Learning Theory applied to the training of teachers with visual impairments in that they followed the same process of learning as the sighted students, while depending on their remaining senses, and if one step of learning was not fulfilled then learning would not be complete.
The visual channel has a transmission rate that was receiver determined. A person who was pictorially literate can read pictures with considerable speed, understand diagrams at a glance and thereby grasp fairly abstract and very concrete communication at high speed. In the “Sighted teacher – visually impaired learner scenario” the vision either partially or totally is missing. That greatly affects the transmission rate in that, the other sensory channels, especially hearing and touch, transmit at a rate determined by the sender or, if the receiver such as in reading braille determined them, the rate was much slower.

Teacher trainees with visual impairments experienced significant learning problems with subjects such as art and craft, geography, history, civics, science and mathematics if tactile learning aids were not used adequately. Comparing the various channels in terms of permanency, it might be noted that the auditory channel tended to generate fleeting stimuli with little permanency. However, the tactile channel tended to have much permanency.

Some methods of teaching used by the tutors who were not trained in special education were not suitable to teacher trainees and in that case, the students ended up not getting the complete pictures of the content being taught. Tutors might use demonstrations on the blackboard and/or charts which teacher trainees might not be able to see and without proper explanation the teacher trainees with visual impairments would not fully grasp what was being taught and the whole cycle was not complete. This was why research should be carried out to identify those problems and then find ways and means of minimizing them.
1.9 Operational Definition of Terms

**Blindness:** A descriptive term referring to a lack of sufficient vision for daily activities of life. Legally defined in most countries as having visual acuity of 20/200 6/60 or less in the better eye with correction or having peripheral vision contracted to an extent in which the widest diameter of the visual field covers an angular distance no greater than 20 degrees (Lowenfeld, 1983)

**Braille:** A tactile (touch) approach to reading and writing for the blind in which the letters are formed by combinations of raised dots in a cell two dots wide by three dots high (Rex, Koenig, Wormsley & Baker, 1994).

**Inclusion:** This is a philosophy that focuses on the process of adjusting the home school and the larger society to accommodate persons with special needs including disabilities. All individuals regardless of their differences are accorded the opportunity to interact, play, learn, work and experience the feeling of belonging. They are also allowed to develop in accordance with their potentials and abilities (Kauffman & Hallahan, 1994)

**Integration:** Integration: The term refers to the participation of teacher trainees with special education needs in regular education without demanding changes in the curriculum provision. Such children follow the school system as it is with some or no support. They are expected to adapt to the regular school arrangement (Kauffman & Hallahan,1994)

**Resource room:** This is a regular class or special class, which is equipped for enriching learning for teacher trainees with special needs. It is usually run by a resource room teacher who is a member of staff with appropriate experience or training in special needs education.
He/she has a responsibility to advise and support other teachers and teacher trainees to deal with special education needs in the classroom (US Department of Education, 2003)

**Residential institution:** A facility either public or state supported, designed to provide designated care and other educational services to those housed there (Livingstone, Utter & Woodland, 1985).

**Visual impairments:** It is an umbrella concept and it includes blindness and all degrees of visual loss, mild, severe and total loss. Typically, persons with visual impairments can be classified in two main categories. These are persons who are blind and those with low vision (Lowenfeld, 1983).
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
The purpose of the chapter was to review literature related to the general education of persons with visual impairments. The chapter would also look at teacher education and training institutions in Kenya and Uganda. Further, the chapter would look at the special needs of teachers with visual impairments. Finally, the chapter would review some literature on attitudes of the public towards disability.

2.2 General Education of Persons with Visual Impairments
Students with visual impairments pose unique challenges to teachers in general education classrooms. Although the number of students in mainstreamed settings was not large, having one such student would require a host of accommodations. Vision plays a critical role in the development of concepts, the understanding of spatial relations, and the use of printed materials. Thus children with visual impairments had unique educational needs. Learning the necessary compensatory skills and adaptive techniques such as using Braille or optical devices for written communication required specialized instruction from teachers and parents who had expertise in addressing disabilities specific needs. (Jordan R and Powell S. 1995). Teachers might be able to use their usual instructional techniques with some modifications with students who had some functional vision. But for students who had very little or no vision, teachers would need to implement alternative techniques to provide effective educational programs.
General education classes were appropriate settings for many students with visual impairments. However, teachers working with those students needed to understand the nature of a particular student’s visual problem to be able to choose appropriate accommodative techniques. They needed basic information related to the four categories listed below:

1. Fundamental concepts of vision and visual impairments
2. Signs or possible visual impairments
3. Typical characteristics of students with visual impairments
4. Specific accommodative techniques for meeting students needs (Gary, L., Katherine, D & Michael B. 2001).

2.2.1 General considerations of persons with visual impairments

When educating students with visual impairments the unique needs of each student must be considered (Gary et al 2001). However, some general practices apply for most, if not all students with those problems. Those practices include the following:

- Ask the student if assistance was needed.
- Do not assume that certain tasks and activities cannot be accomplished without accommodations or modifications.
- Include students with visual impairments in all activities that occur in the class.
- Use seating arrangements to take advantage of any vision the child could use.
- Encourage the use of low vision.
- Remember that many characteristics of students with visual impairments (intelligence, health and the like) may not be negatively affected by the visual impairments”.
2.2.2 Physical considerations for students with visual impairments

Students with visual impairments need to know the physical layout of the classroom so that they could navigate through it without harming themselves. That required orienting them to the classroom. That can be accomplished by taking students around the classroom and noting certain features, such as the location of desks, tables, and materials. Use of a clock orientation approach, such as the front of the class at 6 o’clock was the reading tables and at 9 o’clock was the area for students’ coats and backpacks could be very helpful. Appropriate seating was extremely important for students who need desk lighting and glare and distractions should be considered when seating such students in the classroom (Gary, et al 2001).

2.2.3 Social-emotional consideration of students with visual impairments

Although the literature was mixed on whether students with visual impairments were less well adjusted than their sighted peers (Khallahan and Kauffman 1997), there was evidence that some students with this disability experience social isolation (Heward, 2006). As a result, many students with visual impairments would benefit from attention to their social and emotional development. Social skill instruction might be particularly useful (Sacks, Silverman and Roseanne, 1998). However, because social skills were typically learned through observing others and imitating their behaviours it was difficult to teach those skills to students who were visually impaired.

Concern about emotional development was warranted for all students including those with visual impairments. Teachers should make sure that students know that they were available to talk about a student’s concern. A system could be developed whereby a student who had visual impairments could signal the need to chat with the teacher. Being accessible and
letting students know that someone was concerned about their social and emotional needs were extremely important. According to Smith, Polloway, & Dowdy (2001) the following are some specific suggestions:

- Encourage students with visual impairments to become independent teacher trainees and to manage their own behaviours.
- Create opportunities for students to manipulate their own environment (Mangold, 1995).
- Reinforce students for their efforts.
- Help students with visual impairments develop healthy self concepts.
- Provide special instruction to help students acquire social skills needed to perform appropriately in classrooms and social situations.
- Teach students how to communicate non-verbally such as, use of hands
- Work with students to eliminate inappropriate mannerisms that some students with visual impairments display.

2.3 Teacher Education

The quality of education and training depends largely on the quality of teachers that was academic qualification and professional training, commitment, dedication, conducive working environment, and appropriate terms of service. Teachers were equally central to any successful implementation of education change. Kenya was presently experiencing very rapid societal changes and as society changes, so does its needs and aspirations. Those often impinge on the education system. Schools were therefore, expected to be prepared, not only to cope with such changes, but also to initiate educational changes in relation to the changing needs of society. Schools could only accomplish that, if teachers were professionally trained.
and continuously in-serviced to improve their knowledge, pedagogical skills and competence. In that way, teachers would be responsive and adaptable to change (Koech, 1999).

2.3.1 Principles for good practice in education

Good practice respects diverse talents and ways of learning. There were many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room might be all thumbs in the lab or art studio. Student rich in hands-on experience might not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learning in new ways that did not come so easily (Lowenfeld, 1983).

Teacher education was a process of providing qualified teachers and was, therefore, central to ensuring the maintenance of quality and relevance of education. The quality of teaching was mainly determined by the level of academic and professional education and training. Teacher education programmes were, therefore, planned to produce qualified teachers for various cycles and levels of the national system of education and training in order to achieve the objectives and policies of education (Kamunge, 1988).

2.3.2 Special teachers education in Kenya and Uganda

Prior to 1985, the various special education teacher training programmes in Kenya were provided in special schools and regular primary teachers colleges such as Siriba, Kamwenja, and Highridge to produce trained teachers for special education programmes. The trainees were recruited from already trained primary school teachers with at least three years of teaching experience.
The Kenya Institute of Special Education was established in 1986 to respond to the need for the expansion of manpower training in all areas of service for the disabled, to be a centre of excellence for training and research and to advise on the development of special education. In addition, the institute was involved in the production of teaching aids, assessment of children and development of programmes for independent living. KISE trains teachers who were handicapped and non-handicapped (Kamunge, 1988).

Some students with handicaps particularly those visual impairments, were admitted in regular teachers’ colleges to train as teachers of regular schools. It was noted that most teacher training colleges were not properly equipped to cater for the needs of those who were disabled. As a result, the trainees come with their personal limited equipment which did not fully facilitate their effective participation in the programmes. There was need, therefore, for the colleges to provide the necessary equipment to the handicapped students to fully participate and benefit from the training programmes. Teachers Training Colleges should also equip regular trainees with some basic skills on how to handle children with special needs in order to cater for the majority of children with disabilities in regular schools. That could enhance effective integration of exceptional children in regular schools.

The role of a specialist teacher of children and young people with visual impairments has changed dramatically and continues to change. Twenty-five years ago the training of specialist teachers prepared them exclusively for work in the designated special schools for children with visual impairments, where they would generally teach classes of children with comparable age and ability. Teachers now need preparation for work in a variety of settings with a wide range of ages and abilities.
A study carried out in England by Heather (1997) found out that, recruitment rates of young male and female teachers to all areas of special education, including visual impairments, were low. The gender and age profile suggests that the teacher of teacher trainees who were visually impaired was most likely to be female, in the 35+ age range who had perhaps returned to teaching after raising a family (Heather 1997).

In Kenya, some teachers for special education are trained at Kenya Institute of Special Education (KISE) where they take a two-year diploma course. To qualify for admission, they must be fully trained primary school teachers with a teaching experience of not less than three years. The curriculum offered include:

- Exceptional children.
- Child growth and development.
- Speech and communication difficulties.
- Learning difficulties.
- Theories and methods of teaching exceptional children.
- Sign language.
- Adaptation of learning aids.
- Braille.
- Orientation and mobility among others.

Lecturers use the usual teaching methods such as lecture, demonstration, question and answer, discussion and presentations.

In primary teacher training colleges, the academic requirements are a grade C in the Kenya Certificate of Secondary Education as per last year September, 2008. Courses offered in
those colleges include all the subjects taught in primary schools with an addition of professional studies which includes child development, child psychology and special education. Tutors in those colleges use demonstration, lecture, question and answer and discussion among other methods. Students were expected to take notes during lessons.

2.3.3 The Necessity for Special Education in Teacher Training Colleges

The focus of special education programme was usually limited to the lower levels of the education system. The governing thought seemed to be that there were areas which the children with disabilities could not traverse, one being college and university education. Once in a while, some students with special education needs had been able to push through and gained admissions to institutions of higher learning. However, when they got there they found the system had great un-readiness and reluctance to receive them and some times low tone hostility towards them.

In the case of Uganda no serious attention had been put and no resources and energies committed to address the question of students with disabilities in higher institutions of learning. Uganda National Institute of Special Education (UNISE), (1999).

2.3.4 Admission of Teacher trainees with Visual Impairments

The first visually impaired student was admitted at Kenyatta College for a Secondary Teacher One (S1) certificate in 1968. The second student was admitted in 1973. At this time the college had started offering degree programmes. In 1985, the college became a university admitting students with visual impairments. In the 1980s, the University employed transcribers who were brailling exams and handouts for students who were blind.
After the introduction of the 8:4:4 system of education the intake of students with visual impairments declined. That was because they could not meet entry requirements. With the initiation of the Special Education Degree programme in 1995, the number of students with visual impairments being admitted increased. This was because of review of the entry cut off points as an affirmative action for the rights of persons with disabilities.

The University lacks Braille materials to cater for their educational needs. During teaching practice, students with visual impairments were posted to regular schools alongside their sighted colleagues. Those students had to prepare lessons in print and so they had to hire sighted persons to assist them since most lecturers could not read Braille.

2.3.5 Teaching Practice for Trainees with Visually Impairments

Teaching practice was a time of ‘shock’ for a beginning teacher who was not well prepared for classroom teaching (Summerland and Duke, 1972). They got posted to schools which were new to them during teaching practice. They had to work under unfamiliar situations and environment. To avoid new situations and different environment pressures, the authors emphasize a two-week familiarization period during which student-teachers were driven to the schools and community daily. According to those authors, the familiarization period was not necessarily in one particular school but in its surrounding schools and the community in which the schools were located.

The above suggestions would be very useful but it could not be possible in our Kenyan situation where Kenyatta University student-teachers did their teaching practice in various parts of the republic, while the diploma colleges post their student-teachers to certain zones
covering large areas of the country and primary teacher colleges post their students to the primary schools near the colleges.

Elvin, (1973) says that teaching practice facilitates personal involvement with the class. A teacher who was trained and had practical teaching experiences, although less educated, got students to understand better than a highly educated teacher who is not professionally trained. That was because the more experienced one was the better his or her performance in teaching practice helped in relating theory and practice and bringing them together at every conceivable point.

Both the teacher training course and teaching practice helped the teacher to apply the theory learned to practice appropriately and made her yearn for more learning and discovery in becoming a successful teacher. Those two qualities were desirable in the teaching profession and therefore both of them helped the teacher to perform her teaching roles better. Elvin contends that teaching practice prepared the potential teacher. That was facilitated through the head teacher and senior teachers (practicing teachers). The initial training institution could not facilitate that end.

D’ooley, (1975) viewed the teaching practice phase of teacher education as that aspect affecting a scholar – teacher. During that time, emphasis was on what she taught and how she taught it. The development of teaching techniques is emphasized. D’ooley adds that college teacher education should be linked with classroom and school practices in a co-ordinated manner, in an effective and operational unit. That view was in agreement with Elvin’s view of a trained teacher who was able to perform her teaching roles better.
D’oyley gives an example of “teaching” in the form of team work as practiced by York University. In this system, student-teachers are attached to schools under professional teachers. The professional teachers perform their regular duties in such a way that their accustomed style accommodates a junior partner in the teaching-learning act.

2.4. Inclusion of Teacher Trainees who are Visually Impaired in Kenya

Although teacher trainees with visual impairments were currently taught in inclusive settings at Kenyatta University, Maseno University and Kenya Institute of Special Education in Kenya, that was not always the case in those institutions and did not happen in the teacher training colleges today. Machakos and Asumbi Teacher Training Colleges were the only ones given the mandate of training trainees with visual impairments by the government through the Ministry of Education in Kenya.

Inclusion is a term which expressed commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. It involved bringing the support services to the child rather than moving the child to the services and required only that the child would benefit from being in the class (rather than having to keep up with the other students).

They were now welcome in the society but were made to stay in homes, institutions, hospitals or wards. Although they were still segregated, they were provided with food, clothes and shelter. That was the period of institutionalization. After the period of institutionalization there came the period of integration. The persons who were visually impaired were allowed to live together amongst the people and shared the available resources and activities together with those who were considered normal. All social, economic and
political systems were guided by those transitional stages. The pre-rights period meant that people with visual handicaps had no rights to education, employment, and even the right to vote or to be voted for during any civic election.

The notion of institutionalization still lead to the establishment of special schools and other special institutions. The purpose of that was still to segregate persons with visual impairments from other people who took their education in the regular educational system. Integrating visually impaired persons or children, in the regular school system became the most recent practice though not all societies had given it any substantial priority. Its original process was simply to transfer a handicapped child from a special school to a regular school. The focus was to change the child but not the entire education system, the resources plus the methodology to suit the needs of a child with disability. The most recent development in the education of people with disabilities was the call for full time inclusion into the social, economic and the political systems regardless of race, religion and most important, disability.

Cruickshank (1967) says the education of visually impaired teacher trainees with the sighted was predicted by several pioneers in the education of the blind. Samuel Howe cited in Cruickshank, in his address on the occasion of the opening of the residential school in Bataria, New York foretold the decline of residential schools and the increasing acceptance of blind students in regular schools.

According to Cruickshank, (1967), Jorann Wilhelm Klein who founded a school for the blind in Vienna said that some days the blind would be educated together with the sighted. In recent time, different countries and some international educational conferences had come up with recommendations geared towards the inclusion of disabled children into the regular
system of education. The Kenyan constitution and several Kenyan educational reports and development plans have in one way or the other recommended the integration of children with disabilities in the regular classrooms.

A reasonable number of countries including Kenya are signatories to the call of “Education For All Declaration”. The Salamanca Statement of 1994 and the Kochi Convention of 2003 were specific in their recommendation for the implementation and the practise of inclusive education in all member states. Therefore, according to the earliest and the most recent appeals, inclusion was the process of integrating persons with disabilities in the entire social, economic and political activities regardless of race, religion and disability. For school-going children and adults, emphasis had been given in the appeal for educating such people in the regular school system. Many people considered the idea of integration as new and modern but that was not true before the establishment of the first schools for the blind, even before Braille books were available there were educated men and women who were blind. Among those were Nicholas Sauderson, John Meltcalf and Mary Von Paradiz. Nicholas Sauderson was a professor of maths at Cambridge University. Sauderson died in 1771. John Meltcalf was a road and bridge builder. Mary Von Paradiz was a famous pianist. They learned with the sighted and their own efforts with assistance of imaginative tutors who showed them how to adapt the tools of learning to their own individual needs.

2.5 Attitudes towards Persons with Disability

The attitude of the public towards disability would seem to vary according to the perception made as to its nature, severity and prognosis, as well as according to age. Disabled children appear to suffer less than adults as reflected in personal encounters as well as discrimination implicit in legal or administrative restraints. Social relationships between the disabled and
non-disabled develop in three characteristic stages. First, there were the norms of behaviour for a given social group and those cultural factors operate so that the society behaved to the persons who were disabled equally as it would to any other member of the social group. A second stage was where the personal characteristics of the disabled person ceased to be aware of the functional impairments, however took into account but did not allow it to interfere with the social relationship.

A training objective for ordinary teachers might well encompass that notion of three-stage interaction by a process of self monitoring of their own perceptions and feelings in the teaching of a child who was severely disabled. It was likely that the model was not as precise as indicated by Davis and that for every individual teacher there would be individualized responses that would trigger off a range of conscious and unconscious feelings and reactions. To cope with that, there must, therefore, be a context whereby a student could express and explore sensitively, those deep rooted feelings and what might be personal antagonisms and conflicts and that context must be firmly located in the training process. The essence of that aspect of training was its reality component where real feelings and attitudes were being expressed and evaluated.

Among many communities in Kenya, when a baby with disability was born into a family, the rest of the community considered that family to be cursed, bewitched and unless cleansed they were considered to be outcasts. A child who was disabled was considered to be a mother's child and the father had nothing to do with him or her. They were considered to be very vulnerable to accidents and also to diseases, thus most cases ended up being overprotected. Many people in the society today still pay more attention to their disability instead of their abilities.
According to a journal on Ecumenical Disability Advocates Network, girls who were disabled were discriminated against when it came to courtship and marriage. That was because it was expected that a married woman should be able to perform all the household chores such as cooking, fetching water and firewood. All in all, it was expected that with sensitization people were bound to change their negative attitudes towards persons with disabilities in Kenya.

2.6 Summary

➢ Vision plays a critical role in the development of concepts, the understanding of spatial relations, and the use of printed material. Thus children with visual problems have unique educational needs. Learning the necessary compensatory skills and adaptive techniques - such as using braille or optical devices for written communication – required specialized instruction from teachers and parents who had expertise in addressing disability – specific needs. (Smith et al 2001).

➢ For any meaningful learning to take place there must be an avenue through which the information received from the environment was understood. It was for that reason that many scholars believe that sight was a unique sensory receptor capable of conveying a vast amount of information at once.

➢ Lowenfeld (1983) says that about 80% of all learning takes place through the visual sense. Given the fact that visual limitation interferes with incidental learning, many teacher trainees with visual impairments may find it difficult to perceive certain things that require vision and hence have problems with concept formation. Tutors teaching in Teacher Training colleges mostly use the chalk board for demonstrations
and clarifications of points. Trainees with visual impairment do not benefit much from this.

➢ The disability Act of 2003 stipulates that learning institutions shall take into account the special needs of persons with disabilities with respect to the entry requirements, pass marks, curriculum, examinations, auxiliary services, use of school facilities, class schedules, physical education requirements and other similar considerations. It also emphasises that provisions should be made in all districts for an integrated system of special and non formal education for persons with all forms of disabilities and the establishment where possible of braille and recorded libraries for persons with visual disabilities.

➢ General education classes are appropriate settings for many students with visual impairments. However teachers working with those students need to understand the nature of a particular student’s accommodative techniques. That would enable the visually impaired learner to learn effectively together with the sighted teacher trainees.

➢ Lack of adaption of the curriculum where most of the subjects are visually oriented affects the learning of trainees with visual impairment. All books for primary education are in print, posing a great challenge to trainees with visual impairment when it comes to teaching practice. In the most of higher learning institutions, notices and important information is posted on the public notice board. Persons with visual impairment miss a lot of this information.
With that in mind therefore, the researcher intends to carry out a study on the effect of training of teachers with visual impairments alongside the sighted teacher trainees at Machakos and Asumbi Teachers Training Colleges.
CHAPTER THREE
METHODOLOGY

3.1 Introduction
The chapter intended to describe the kind of the research design employed in the study and the locale of the same; it further described both the target population and the sample population. The chapter described the research instruments used in the study and the data collection techniques to be employed. Finally, the chapter looked at how the data was analyzed.

3.2 Research Design
The study used a descriptive research method; a survey design that used both qualitative and quantitative research approaches in gathering data. It was deemed appropriate due to the fact that no single method was adequate in investigating a problem with rival causal factors (Orodho, 2004). That combination on the other hand allowed flexibility while examining multiple factors in an attempt to obtain the pertinent information. That descriptive design should also be used when collecting information about people’s attitudes, opinions, habits or any of the variety of education or social issues (Orodho, 2004).

3.3 Location of the Study
The location of the study was at Asumbi Teachers Training College in Nyanza province which was about 450km from Nairobi and Machakos Teachers’ Training College in Eastern province which was about 67km from Nairobi. The two colleges were selected for the study since they were among Colleges training teacher trainees with visual impairments.
3.4 Target Population

The total population was 1620. Trainees with visual impairments were 65, sighted trainees 1435 and 120 tutors. These were drawn from the two colleges.

3.4.1 Sampling Techniques

Purposive sampling was used to select the two colleges. Random sampling was used to select teacher trainees with and without visual impairments and their tutors. A sample of 25 students with visual impairments was used, 10 from Asumbi (this was 38% of the total population – with visual impairments) and 15 (this was 3% of sighted students) from Machakos teachers training colleges. A sample of 50 sighted students was included in the study with 25 students from each college. This was 3% of the total population. See table 3.1 below:

Table 3.1: Sample selection of students;

<table>
<thead>
<tr>
<th>College</th>
<th>Year of Study</th>
<th>Students</th>
<th>Sighted</th>
<th>V. I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Asumbi</td>
<td>1st years</td>
<td></td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>2nd years</td>
<td></td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Machakos</td>
<td>1st years</td>
<td></td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>2nd years</td>
<td></td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
Simple random technique was used to select 20 tutors from each college for the study. That was about 16% of the total population. Raffles were used to obtain 20 tutors from each college under study. See table 3.2 below;

Table 3.2 - Sample selection of tutors

<table>
<thead>
<tr>
<th>COLLEGE</th>
<th>Asumbi</th>
<th>Machakos</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Asumbi</td>
<td>Machakos</td>
</tr>
<tr>
<td></td>
<td>TUTORS</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Asumbi</td>
<td>F</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Machakos</td>
<td>Total</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Those colleges were chosen because they were the teacher training colleges which train teachers with visual impairments who taught in primary schools and secondly they had large numbers of such teacher trainees.

3.4.2 Sample size

The sample population for the study was 115. That included 25 teacher trainees with visual impairments (10 from Asumbi and 15 from Machakos), 50 sighted students (25 from each college) and 40 tutors (20 from each college).

3.5 Research Instruments

The researcher used questionnaires to collect data, 3 sets of questionnaires were constructed to gather information from trainees and tutors. The questionnaires were constructed by the
researcher herself. In relation to the research questions which the study sought to answer, both closed-ended and open-ended questions were used in constructing the instruments.

The questionnaires sought information on problems teacher trainees with visual impairments encounter in their academic work, how such teacher trainees carried out their teaching practice in regular schools, and teaching problems encountered by their tutors. Further, the questionnaires sought data on availability, adequacy and adaptability of learning resources. They also sought information on percentages of tutors who had some training in special needs education.

3.6 Pilot Study

Pilot study was done with students from Machakos College who were not included in the main study. Piloting was aimed at establishing both reliability and validity of the study (Peil, 1995). That was because Machakos had more visually impaired students than Asumbi. That included four students with visual impairments, four sighted students and four tutors. The respondents were given the questionnaires to respond to. After their response, the necessary corrections were made.

3.6.1 Validity of the Study

A measure is said to be valid if it does what it is intended to do (Hugh, 1999). In order to establish the validity of the instruments, the researcher gave the instruments to two lecturers in the Department of Special Education at Kenyatta University to read and offer suggestions on how to improve them.
3.6.2 Reliability of the study

The reliability of the instruments for the study was measured using test-retest method. The questionnaires were given to a group selected for piloting. They filled the questionnaires and their responses were scored manually. After 2 weeks the procedure was repeated. Lastly the responses from the 2 occasions were compared using Pearson’s product moment correlation formula to compute the correlation co-efficient in order to establish the extent to which the contents of the questionnaire were consistent in eliciting the same responses every time the instrument was used (Kothari, 2005).

3.7 Logistical and ethical consideration

Before data collection exercise began, it was important for the researcher to obtain permission from the Ministry of Education. Once the permit was given, the Provincial Directors of Education and the District Education Officers to the schools were then informed by the researcher of her intention to carry out the study. The researcher then sought consent from the respondents. She further informed her respondents about the nature of the research.

3.8 Data collection procedure

The researcher with the help of two research assistants administered questionnaires for teacher trainees with visual impairments and those for sighted teacher trainees. The respondents were given time to fill in the questionnaires. The researcher was present throughout the session to explain and offer clarifications wherever needed. The questionnaires were then collected after completion on the same day. The tutors’ questionnaires were distributed to them on that day and collected after two days.
3.9 Data analysis

Items from the questionnaires were arranged and grouped into particular research questions. The researcher went through all the questionnaires returned to come to a conclusion through the use of descriptive method, frequencies and percentages.
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.1 Introduction

The chapter presented the data findings which were based around the four objectives which were to Identify professional problems encountered by teacher trainees with visual impairments, identify teaching challenges encountered by tutors of teacher trainees with visual impairments, ascertain the availability, suitability and adequacy of learning resources in relation to special needs of students with visual impairments and determine the tutors' attitude towards teacher trainees with visual impairments in professional performance.

The question sought to find out which subjects that students with visual impairments liked most. The findings showed that C.R.E. was the most favorite subject with 81%. That was followed by English with 64% and Kiswahili which had 62%. Education had 59%. From the above findings, it was clear that students with visual impairments preferred subjects which were not practical oriented. It was also noted that the preferred subjects usually had no diagrams. Their course books were only in prose and thus did not pose much challenge to those teacher trainees.
Table 4.1

Percentage of subject liking

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRE</td>
<td>90</td>
</tr>
<tr>
<td>ENGLISH</td>
<td>70</td>
</tr>
<tr>
<td>KISWAHILI</td>
<td>70</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>60</td>
</tr>
</tbody>
</table>
From the table above, it was clear that most students with Visual Impairments (78%) felt that mathematics was their most difficult subject. That was because it was not possible to calculate mathematical problems with a Braille machine. Abacus, which could have been of help to the students were not available, creative arts was cited as the second most difficult subject (68%). Reasons given were that the subject involved a lot of practical activities which were vision oriented. Such included drawing, and painting among others.

Music was another subject where students with visual impairments had difficulties in (58%). Lack of reference materials for further practice and the fact that those students were being introduced to the subject for the first time made it more difficult. Information Communication and Technology was the fourth placed most difficult subject (28%). That was a subject which was practical oriented and lacked of the relevant software for students.
who were blind and made it a real challenge to those teacher trainees. Generally it was noted that tutors teaching those subjects lacked relevant skills to assist the students with visual impairments.

4.2 Assistance from Sighted students

Table 4.3 Assistance from sighted students

<table>
<thead>
<tr>
<th>Areas of Assistance</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance outside class</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Dictation of notes</td>
<td>07</td>
<td>28</td>
</tr>
<tr>
<td>Reading</td>
<td>05</td>
<td>20</td>
</tr>
<tr>
<td>Discussion</td>
<td>03</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>
A total of 10 (40%) out of the 25 students with visual impairments who participated in the study agreed that most of the assistance that they got from their sighted counterparts was in movement outside the class. A further 7 (28%) said that sighted students dictated notes to them whereas 5 students (20%) said that sighted students read out notes and text books to them. Only 3 students (12%) said that they got assistance during discussion time.

So generally students with visual impairments rely quite a lot on their sighted colleagues for their success. The same was confirmed by sighted students who agreed that they helped those teacher trainees in most of the activities.

Tutors also noted that sighted students play a big role in the success of the students with visual impairments, since most of the teaching/learning resources were not available in Braille.
4.3 Problems encountered by Braille users in taking notes in class

Table 4.4 Problems encountered by braille users

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise from Braille writers</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Breaking down of Braille writers</td>
<td>08</td>
<td>32</td>
</tr>
<tr>
<td>Lack of writing materials</td>
<td>06</td>
<td>24</td>
</tr>
<tr>
<td>Teachers not audible</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>
The findings showed that the greatest problem experienced by Braille users in taking notes was the noise produced by the Braille writers. This amounted to 40%. The noise interfered with the audibility of the tutor and the problem was even worse if the tutor was not loud enough.

The same was confirmed by sighted students who pointed out that braillers used by students with visual impairments usually produced a lot of noise thus disturbing the whole class. The tutors also echoed the same opinion concerning Braille writers making a lot of noise in class.
Breaking down of Braille writers was cited as the second problem (32%). Students indicated that Braille writers usually broke down and took quite long to be repaired. This was because the Braille transcribers in those colleges were not trained in repairing the machines. 4% of the respondents felt that some tutors were not loud enough in classes for them to be able to listen and subsequently take notes. Generally, it was also noted that tutors expressed the same sentiments that students with visual impairments missed most of the important points while taking notes in class.

4.4 How Tutors Catered for Individual Needs During Practical Lessons

20 students with visual impairments (80%) said that they did not receive any individual attention during practical lessons. Some tutors found it to be a waste of time and thus ignored them completely. So those students were only left to depend on the little information learnt theoretically. That made them disadvantaged as compared to their sighted counterparts. The remaining 5 students (20%) admitted that some tutors usually assisted them in different ways such as pairing them with sighted students and giving them individual attention during the lessons.

On the other hand, tutors felt that since there were no adaptations in all the practical subjects, they lacked skills of assisting the students, thus they left them to depend on sighted students for explanations.
Table 4.5 Assistance given to persons with visual impairments

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No assistance</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Assistance</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5 Availability of Braille Materials

4.5.1 Availability of Braille Books

From the respondents, it was evident that there were either few or no Braille books at all for different subjects. Those students did not benefit from the libraries either. That was because there were no current Braille books in stock. That was a critical area for all the 25 respondents (100%) agreed that Braille books were unavailable. The process of putting print books into Braille was usually slow and quite expensive. Thus, more often than not students with visual impairments had to do without Braille materials. That further disadvantaged them in knowledge and skill acquisition.

4.5.2 Availability of Braille Writing Materials

Findings indicated that Braille writing materials and equipment were unavailable to 80% of the respondents. However, in case of any breakages, students were left without any writing equipment. That was because, spare parts may take long to be purchased and also the transcribers had little or no knowledge of repairing them as earlier noted. It was also noted that Braille paper usually run out of stock and the students were inconvenienced the more since, they could not continue taking their notes.
However, 20%, of the respondents said that they were comfortable and had no problem with the writing materials.

4.6 Examinations

4.6.1 Time allocated for examinations

All the respondents (100%) stated that time allocated for examinations was not enough. That was because some examination papers were long thus demanding more time than allocated. Print used for students with low vision was not suitable for most of them who had problems in reading them. That was because no enlargement was done to suit individual needs or did not have low vision devices to assist with magnification.

4.6.2 Giving of Examination Results

From the findings, it was noted that students with visual impairments never got their exam results at the same time with their sighted counterparts. That was stated by the high number of respondents (88%) who stated that they either received their results long after the others had received theirs or they never received them at all. Only 12% stated that they received their examination results alongside their sighted counterparts.

Those who received their results late noted that their papers delayed in marking since tutors could not read Braille and so they had to go through the transcription process before they could be marked.
As indicated by the above table, students with visual impairments faced challenges during teaching practice. The greatest challenge as revealed by the findings was in the area of general preparation for teaching. For effective teaching, preparation was paramount. Students with visual impairments lacked books in Braille for preparation. They also needed to present their schemes of work and lessons in print for approval by their tutors who could not be able to read them in Braille. That meant that those students had to look for readers among the sighted students who were equally busy preparing for the same. There was also need for the students to rely on their colleagues to help them in preparing teaching/learning resources which were usually
visual. In most cases they found themselves teaching without a teaching/learning resource which would lead to being penalized by their assessors.

Another challenge was in the area of actual classroom teaching. The findings also revealed that students with visual impairments faced challenges during actual classroom teaching. That was because they could not use the chalkboard for demonstrations/illustrations in teaching. It calls for the assistance of the class teachers or their sighted colleagues. Sometimes the assistance might not be forthcoming and that leads to frustrations on the part of the teacher trainee. In teaching, feedback to the teacher trainees was very important since it was the avenue of knowing whether the objectives had been achieved and it was also a source of motivation to the teacher trainees. A student with visual impairments might not achieve that on the spot since he/she had to depend on sighted colleagues to assist in marking the teacher trainees work.

Depending on the amount of work, the marking might take unnecessarily long which meant that teacher trainees might had to move to new topics before getting feedback for work already covered. Tutors also noted that those students might lack assistance during teaching practice owing to the amount of work involved.

Sighted students also noted that their colleagues with visual impairments usually experienced limitations in writing on the chalkboard and also in class control particularly where classes were very large. Mischievous children also might tend to take advantage of their lack of sight.
4.8 Assistance During Teaching Practice

From the findings it was evident that students with visual impairments received assistance from their sighted colleagues. The assistance ranged from preparation of schemes of work and lesson plans, teaching/learning resources, teaching text books, writing on the chalkboard, marking teacher trainees work and also orienting them on the new environment (Teaching Practice Schools). The tutors also concurred that those students received maximum assistance from their sighted colleagues.

4.9 Relationship among Students With Visual Impairments With Sighted Students, Tutors And Teachers From Teaching Practice Schools

From the findings, it was clear that students with visual impairments did not relate very well with their sighted counterparts, tutors and teachers in the Teaching Practice Schools. Some of the tutors (60%) found them to be a bother in the classes since they needed to keep on spelling out difficult words and explaining diagrams and other illustrations. Due to lack of skills they found it difficult to teach them effectively. Thus, 90% of the tutors echoed the need for seminars and refresher courses to enable them acquire knowledge and skills to assist those students. The sighted students (70%) also expressed fear and superstitions in relating with them. Most of those who assist them did it out of sympathy other than empathy. A further 30% felt that the students with visual impairments did not appreciate assistance given to them, instead they found them a bit rude and difficult to associate with. Thus, they gave them little or no assistance at all.
On the other hand some teachers (70%) in the Teaching Practice schools did not welcome them in their classes. They felt that they could not teach well as compared to their sighted counterparts. They also expressed the feelings that those teachers over depend on them for assistance. The teachers also noted that children tend to fear them and prefer being taught by the sighted student teachers.

However, 40% of the Tutors felt that students with visual impairments related well. 30% of the sighted students also said that those students were okay and they related with them quite well. A further 30% of teachers in the teaching practice schools also had no problems in relating with them.

Table 4.7 Relationship of students with visual impairments with tutors and sighted trainees

<table>
<thead>
<tr>
<th></th>
<th>Tutors relationship</th>
<th>Sighted students relationship</th>
<th>T.P. School Teachers relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not relate well</td>
<td>60</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>Relates well</td>
<td>40</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

About the image: The image contains a bar chart titled "Table 4.7 Relationship of students with visual impairments with tutors and sighted trainees." The chart has three categories: Tutors relationship, Sighted students relationship, and T.P. School Teachers relationship. The chart shows the percentage of people who relate well and those who do not relate well. The legend indicates that blue bars represent those who do not relate well and purple bars represent those who relate well.
The discussions were based on the research questions in chapter one and the findings in this chapter. The first objective was:

4.10 Professional challenges encountered by teacher trainees with visual impairment in teacher training colleges

It was evident and clearly outlined by the results of the study that trainees with visual impairments encountered many problems in different areas during their training as earlier noted. It was also noted that Braille papers usually run out of stock and the students were inconvenienced the more since, they could not continue taking their notes. According to the results in table 4.4, it was evident that the noise from the Braille machines affected the taking notes in class and especially when the tutor was not loud enough. The same problem was echoed by sighted students who stated that they were also affected by the noise of the machine during the lessons. The result continued to show that tutors also confirmed that the noise from the Braille writers affected their teaching thus forcing them to talk above their voices. They further stated that students with visual impairments missed most of the important points while taking notes in class during the lessons.

4.10.1 Teaching problems encountered by tutors of students with visual impairments.

- From the findings, it was evident that students with visual impairments did not benefit much from the practical subjects and also mathematics. That was because tutors teaching them lacked the skills to use because most of them were not trained in special needs education.

- The marking and giving feedback to students with visual impairments was cited to be another challenge because tutors did not have skills for reading Braille. Due to lack of books in Braille, tutors found it to be tiring in dictating notes in class.
Further, the findings indicated clearly that tutors did not give individual attention to students with visual impairments. That was confirmed by 80% of the respondents who said that they did not receive any attention during practical lessons; they only depended on the information learnt theoretically. On the other hand, tutors echoed that since there were no adaptations in all the practical subjects, they lacked skills of assisting the students, thus leaving them to depend on sighted students for explanations.

4.10.2 Learning Resources Available, Suitable and Adequate In Relation To Special Needs of Students with Visual Impairments.

- As already captured by Research Question one and two, it was evident that there were few materials and equipment available for teacher trainees with visual impairments.

- Lack of braillers (writing equipment for those with total blindness) left those students with no other alternative but to use slates and stylus which were very slow writing equipment. The slates and stylus were also very cumbersome in that the student had to keep on turning the paper to enable him/her to read whatever was written.

- Lack of books written in Braille also forced those students to depend on sighted peers who volunteer to assist them. More often than not, that assistance was not forthcoming. Therefore, print books and other materials should be put into braille to ensure that teacher trainees were not disadvantaged.

- From the respondents, it was evident that there were other few or no Braille books at all for different subjects. The students did not benefit from libraries either. That was because there were no current Braille books in stock. That was a critical area in that all the 25 respondents (100%) agreed that Braille books were unavailable. The
process of putting print books into Braille was usually slow and quite expensive. Thus, more often than not students with visual impairments had to do without Braille materials. That further disadvantaged them in knowledge and skill acquisition.

- 100% of the respondents confirmed that time allocated for examinations was not enough. The findings also continued to show that trainees with low vision were given print which they could not read effectively. It was evident that all trainees with visual impairments needed more extra time to do their examinations since some of the papers were too long thus demanding more time than the allocated time.

- Another problem noted by the findings was that Braille writing machines were not enough so in case of any breakages, students were left without any writing equipment. This is because, spare parts may take long to be purchased and also the transcribers have little or no knowledge of repairing them.

4.10.3 Tutors attitudes towards teacher trainees with visual impairments in professional performance

- From the findings, it was clearly indicated that 60% of the tutors found them to be a bother in the classes since they kept on spelling out difficult words and explaining diagrams and other illustrations. Those tutors lacked skills and did not teach effectively. The results revealed that 90% of the tutors echoed the need of seminars and refresher courses to enable them acquire knowledge and skills to assist those students.

- 70% of the sighted students expressed fear and frustrations while relating with them. They assisted them through sympathy and not empathy. The same was echoed by regular teachers where those trainees practiced teaching. Some of the teachers show
contempt and non acceptance of them out rightly. That was of course transferred to the teacher trainees who play mischief on the trainees and took advantage of their lack of vision. That disadvantaged those trainees the more since teachers were supposed to be as close as possible to their teacher trainees.

In summary, the study found out that colleges integrating student teachers with visual impairments were not well prepared to meet the diverse needs of those trainees. That left the trainees with a number of handicaps which made their training period quite challenging. However, recommendations made in the following chapter if effected would ease the challenges and improve on the training of the teacher trainees with visual impairments.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main aim of the study was to find out professional challenges encountered by teacher trainees with visual impairments in two teacher training colleges. Those were Asumbi Teachers College in Nyanza Province and Machakos Teachers College in Eastern Province. The Researcher looked at the following challenges:

(i) Professional challenges teacher trainees with visual impairments encountered at Machakos and Asumbi Teachers Training Colleges.

(ii) Teaching problems encountered by tutors of trainees with visual impairments

(iii) Learning Resources available, suitable and adequate in relation to special needs of students with visual impairments.

(iv) Tutors attitude towards teacher trainees with visual impairments in academic performance.

5.2 Summary

In the first chapter the researcher looked at the background to the study, statement of the problem and the significance of the study. The chapter further outlined the research questions and the objectives of the study.

In the second chapter literature was revealed under the following four main topics:

(i) General education of persons with visual impairment.

(ii) Teacher education.

(iii) Teacher trainees who are visually impaired and inclusion in Kenya.
(iv) Attitudes of the public towards disability.

In the third chapter which was methodology the research design which was a descriptive survey was outlined. The location of the study and the target population was also indicated. The instruments used for collecting data were three sets of questionnaires. The data was analysed by grouping the items into particular research questions, through the use of descriptive method, percentages and frequencies.

In the fourth chapter, data was presented analysed, interpreted and discussed. In this chapter, results indicated that the most difficult subjects for trainees with visual impairment were those which were practical oriented. Teaching methods used were also a problem. Breakage of the Braille writers and noise produced by them during the lessons affected their performance.

Discussions followed the research questions set in chapter one. These were as follows:

- Professional challenges learners with visual impairment encountered at Teacher Training Colleges.
- Teaching problems encountered by tutors of students with visual impairment.
- Learning Resources available, suitable and adequate in relation to special needs of students with visual impairment.
- Tutors attitudes towards learners with visual impairment in academic performance.
5.3 Conclusion

It was important to note that the purpose of the study was to investigate on the academic challenges met by students with visual impairments. The findings stipulated that those students faced a lot of problems such as lack of teaching/learning materials, adequate writing materials, inadequate time allocated for examinations and teaching practice preparation among others. Students were placed in those colleges without prior preparation such as preparing tutors and sighted students psychologically. Tutors in the colleges needed skills and knowledge on how to accommodate students with visual impairments.

Prior preparation should be made by the colleges and the Ministry before admitting the students with visual impairments in the colleges so as to give them the opportunity to learn effectively with their sighted peers. Students with visual impairments were entitled to education and as a result of that their academic needs need to be met to avoid frustrations and poor academic performance. According to the results teaching practice gave those students a lot of problems and there should be at least few tutors who could read Braille to avoid double preparation for students with visual impairments. The idea of readers should be introduced in colleges so that the dependence of those students to their counterparts could be minimized. Practical subjects should be adapted to meet the need of those students.

Students expressed that writing materials broke down and stayed without writing which led to frustrations. Colleges should have more writing equipment to cater for such problem.
5.4 **Recommendations**

From the research findings, the following recommendations were made:

a. In order to minimize professional challenges faced by teacher trainees with visual impairments, colleges should be prepared in terms of facilities, resources and personnel who are well trained in the area of special needs in education.

b. The government should ensure that reading materials and other resources for use by teacher trainees with visual impairments were readily available.

c. There should be frequent seminars and workshops organized for trainers of teacher trainees with visual impairment to equip them with the necessary skills.

d. That teachers and pupils where students with visual impairments carry out their teaching practice were prepared before hand so that they were not negative towards those students.

e. Schools where teacher trainees carry out their teaching practice should be prepared before hand so as to have positive attitude towards them.

5.5 **Recommendation for further research.**

Researchers wishing to further their research should venture into the following areas:

- Technical challenges faced by students with visual impairments in Kenyatta University.

- Professional challenges encountered by teachers with visually impairments teaching in regular primary schools in Kenya.
REFERENCES


US Department of Education(2003) Twenty Fifth Annual Report to congress on the implementation of the individual with disabilities Education Act: Washington DC
Appendix (i)

QUESTIONNAIRE FOR STUDENTS WITH VISUAL IMPAIRMENTS

Please complete the questionnaire by responding to all questions

1. Which 4 subjects do you like best and why? ..............................................................
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2. Which 4 subjects do you have difficulties in. Give reasons ........................................
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........................................................................................................................................
........................................................................................................................................
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3. Do you get any assistance from the sighted students? YES? NO (Explain)
   2. During class time .................................................................................................
........................................................................................................................................
   3. Outside the class ...................................................................................................
........................................................................................................................................

4. What difficulties do you encounter when using Braille writers in class? ..
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........................................................................................................................................
........................................................................................................................................

5. Do you think that you get enough from your tutors during lessons?
   YES/NO

6. How do tutors cater for your individual needs during practical lessons?
........................................................................................................................................

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7. Do you think writing materials are adequate? YES/NO.

8. Is the time allocated for taking exams adequate? YES/NO.

9. If no, what do you think should be done to solve the problem of time allocation?

10. Does the college library cater for your learning needs? YES/NO.

If no, explain

11. Do you get your exams results together with your sighted peers? YES/NO.

If no, explain why the delay

12. How do you prepare your schemes of work and lesson plans for the approval by your tutors?

13. (a) How many T.P’s have you done so far?

(b) Is there any assistance given to you during Teaching Practice? If yes explain.

14. What was the attitude of the class teacher and the pupils in the class?
15. What is the attitude of the tutors towards the visually impaired students in
   (a) the college? .................................................................
   (b) Explain why you think so? ..............................................

16. Who provides you with Braille materials? ..............................

17. What happens in case of breakages and loses of Braille machines etc.?..
Appendix (ii)

QUESTIONNAIRE FOR SIGHTED STUDENTS

Please complete the questionnaire by responding to all questions

1. Do you think teacher trainees with visual impairments experience problems during their training?

   YES / NO.

   If yes explain the nature of the problems .................................................................
   .................................................................................................................................
   .................................................................................................................................
   .................................................................................................................................

2. Would you say the machines used by students with visual impairments have any effect to the rest of the regular students? YES/NO.

3. Do you think students with visual impairments need assistance from sighted regular students in their learning? YES/NO.

   If yes, explain ............................................................................................................
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   .................................................................................................................................
   .................................................................................................................................

4. How many students with visual impairments learn together with you in your class?

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   .................................................................................................................................
   .................................................................................................................................
5. Do you feel that teacher trainees with visual impairments appreciate any help given to them by sighted students? YES/NO.
If NO, please explain.

6. Are teacher trainees with visual impairments in your class subjected to the same curriculum?
YES / NO.
If yes, how do they cope with practical subjects like sciences and social studies?

7. From your own observation, do you feel that tutors give attention to teacher trainees with visual impairments? YES / NO.

8. Do you feel that students with visual impairments rely too much on your help during Teaching Practice? YES / NO.

9. Do you find students with visual impairments easy to interact with? YES / NO.
10. Do sighted students share cubicles with visually impaired students willingly? YES / NO.

If no, explain

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11. From your observation, what challenges do trainees with visual impairments encounter when teaching regular classes? Explain.

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............................................................................................................................................................

12. Do teacher trainees with visual impairments participate in extra curricular activities? YES / NO.

13. From your own observation, what problems do trainees with visual impairments encounter from the teaching methods used by tutors in class?

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14. In your opinion, what would you say is the greatest challenge faced by teacher trainees with visual impairments in an inclusive setting?

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15. Do you think that the college library is well equipped to support learning needs for teacher trainees with visual impairments? YES / NO.
QUESTIONNAIRE FOR THE TUTORS

Please complete the questionnaire by responding to all questions

1. (a) What subjects do you teach students with visual impairments?

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(b) What specific problems do you feel students with impairments encounter in your subjects?

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2. Do sighted students complain of noise produced by Braille writers in your class?

YES/NO?

If yes, what do you think can be done to solve the problem?

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3. According to your own observations, what problems do those students encounter as far as Learning was concerned?

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...................................................................................................................................................
...................................................................................................................................................
4. Do you encounter any problems in teaching students with visual impairments?
   YES/NO

   If yes, please explain
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   ...........................................................................................................
   ...........................................................................................................

5. (a) About how many students with visual impairments do you have in your class?
   ...........................................................................................................
   ...........................................................................................................
   ...........................................................................................................

6. Do the students with the visual impairments follow the same curriculum with the rest of the students? YES/NO

   If yes, are there any adaptations made on the materials used or the topics taught?
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   ...........................................................................................................
   ...........................................................................................................

7. Have you attended any course in special education? YES/NO

   If yes, explain the nature of the course undertaken
   ...........................................................................................................
   ...........................................................................................................
   ...........................................................................................................

8. Do you think it is necessary to organize seminars for the tutors in your college on how to teach students with visual impairments? YES/NO

   If yes, give reasons
   ...........................................................................................................
9. What ideas do you have that can facilitate the learning for the students with visual impairments?

10. Who provides the learning/teaching materials for the students with visual impairments?

11. How do tutors who do not know how to read/write Braille give feedback to the teacher trainees with visual impairments?

12. Do you have enough brailled materials for teacher trainees with visual impairments in your college? YES/NO

If no, how do they do their assignments and other further reading?
13. How do teacher trainees with visual impairments perform their T.P. compared to the sighted students?

14. What problems do teacher trainees with visual impairments encounter during T.P. exercises?

15. What is the relationship of the following people with trainees with visual impairments?
   (a) Sighted students
   (b) Tutors
   (c) Regular teachers in the regular schools where the visually handicapped students take their T.P.
MINISTRY OF HIGHER EDUCATION,
SCIENCE AND TECHNOLOGY

When replying please quote
REF: MOHEST 13/001/38C 706/2

Nasiforo Beth
Kenyatta University
P.O BOX 43844
NAIROBI

Dear Madam

RE: RESEARCH AUTHORIZATION

Following your application for authority to conduct research on Academic Challenges encountered by Teacher Trainees with Visual Impairment in Kenya, am pleased to inform you that you have been authorized to conduct research in Machakos and Homabay districts for a period ending 30th June 2009.

You are required to report to the District Commissioner and District Education Officer Machakos and Homabay district before embarking on your field study. On completion you are expected to submit two copies of your research report to this office.

M.O. ONDIEKI
FOR: PERMANENT SECRETARY

CC:
1. THE DISTRICT COMMISSIONER MACHAKOS
2. THE DISTRICT COMMISSIONER HOMA BAY
3. THE D.E.O. MACHAKOS DISTRICT
4. THE D.E.O.HOMA BAY DISTRICT