

## The role of integrated programme in education and rehabilitation of students with visual impairments: An evaluation on academic performance

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### Abstract

Disability is not limited to a place or to a race but it transcends across the borders and therefore it is an issue of global concern. Africa has portrayed a wide gap between the educational needs of the physically challenged persons and the services available. It is then not surprising that one percent of the physically challenged persons in the sub-region enrolled in recognized special schools and programs (Special Education Bulletin for Eastern and Southern Africa, June 1987). Ndichu (2003) reports that 'after a successful experience in Nairobi integrated education for visually impaired, MOEST in 1989 initiated the Kenya Integrated Education Programme (KIEP) for visually impaired in 19 districts and by 2004, Kenya had 34 districts under integrated education'. This paper was concerned with establishing the role played by this programme in educating and rehabilitating visually impaired and blind students. A case study design method was used. The data collecting techniques included questionnaires, focus group discussion and document analysis. A total of 200 respondents from Kericho County, Ainamoi Sub-county participated in the study. These included; head teachers, teachers, sighted students, paraprofessionals and supervisors. Both qualitative and quantitative approaches were employed in data analysis. The findings revealed variations in the evaluation of the programme towards rehabilitation and education; whereas teachers say the programme is not a success due to lack of proper equipment and skills, the impaired students feel comfortable being involved in the integrated programme. The study thus recommends that integration programme be embraced with clear policies that support the same including equipment for special needs of the blind and visually impaired.

**Keywords:** visual impairments, integrated education programme, students, academic performance

### Introduction

Students with visual impairments need an educational system that meets the individual needs, fosters independence, and is measured by the success of each individual in the school and community. Vision is fundamental to the learning process and is the primary basis upon which most traditional education programmes are based. Students who are visually impaired are most likely to succeed in educational systems where appropriate instruction and services are provided in a full array of program options by qualified staff to address each student's unique educational needs (UNICEF 1999) [8].

In many countries of the world, families with physically challenged children carry with them a burden of social stigma, which impedes social and economic welfare (Ahlberg, 1991) cited by Ndinda (2005) [6]. The resultant effects have been exclusion, isolation and marginalization from the mainstream community life. Efforts to integrate them in to the mainstream life have been met by socio-cultural and economic barriers among other factors (Ndinda, 2005) [6].

However, there have been tremendous changes in the philosophy and practices associated with the education of students who are blind and visually impaired during the last few decades (MacCusprie, 2002) [4]. Children with visual impairment, who had few opportunities for academic access in the regular classrooms in the 1960s, now frequently attain their formal education in the public school setting. Students who rely on Braille as their primary reading medium are commonly enrolled in the regular classrooms for the majority of their instructional time. The limited opportunities for educational

for children with multiple disabilities in addition to visual impairment have dramatically expanded with the provision of support, which allows them to attend public schools with their age-appropriate peers (MacCusprie, 2002) [4].

In 1986, the Ministry of Educational Science and Technology (MOEST) initiated the Nairobi Education Integrated Programme (NEIP) for visually impaired. By 1987, the government had established 27 Educational Assessment Centers in order to help identify visually impaired children early and place them in appropriate schools in time. The special education within the Ministry of Education by then had catered for about 8,000 children in 56 special schools and integrated programme. Professional and others services continued to be offered in an attempt to alleviate the problems of the physically challenged people in Kenya.

After a successful experience in Nairobi Integrated Education Programme for visually impaired, MOEST in 1989 initiated the Kenya Integrated Education Programme (KIEP) for visually impaired in 19 districts and by 2004, Kenya had 34 districts under integrated education (Ndichu, 2004). Currently, the regular and special needs educations (SNE) in Kenya are disseminated through a centralized curriculum (Sessional Paper No. 1, 2005 on 'A policy framework for education, training and research'). The centralized curriculum implies all learners go through the same learning experience without taking into account their diverse conditions hence integration.

This study conceptualizes integrated education programs as to mean 'mainstreaming' or 'integration' based on the right of the visually impaired students to access education in regular

school in the communities where they are guaranteed their rights to grow up with their parents, siblings and extended families just like the sighted children. This was in response to Salamanca's statement that was adapted by the world conference on special education needs, Access and Quality (1994) which called upon all governments and urged them as a matter of urgency; to adapt as a matter of law or policy, the principles of inclusive education; that is, enrolling all children in regular schools, unless there are many compelling reasons for doing otherwise.

The building of more special schools for educating the physically challenged was not the best option. The alternative approach was then opted for and this was integration of the physically challenged children into ordinary /regular schools. Special Education Bulletin for Eastern and Southern Africa, June (1987) <sup>[7]</sup> deduced integration to mean "a process that is, a continuous chain of interventions characterized by a certain degree of coherence, which offer the handicapped person the chance of having encounters and enjoying common experiences with able-bodied persons". The term integration has interchange meaning with the term mainstreaming as it has been used by scholars researching on special education needs. The other term that interchange meaning with integration is "inclusion".

The popularity of integration was attributed to the fact that, the residential schools placement, inability of special day school and self-contained classes had failed to provide the best means of integrating physically challenged children into society (Ndurumo, 1993).

The main reasons for adoption were;

1. Mainstreaming was more favorable for the growth and development of the child.
2. Education that retain the child with the family and the community was seen to be more psychologically conducive for the growth and the development of the child
3. The environment that "normalizes" the child through common experience and interactions are more desirable.

Although the Integration as a modality concurs with the philosophy of equal rights for all, the exceptional children are categorized under disability types for instance the mentally retarded, the blind, the physically disabled and each with special needs. To all this groups and for integration to be successfully implemented, the provision of education and the delivery of services must take place in the most effective and least restrictive circumstance for individual student to benefit.

When integration was implemented in Kenya, it was presumed that all the services were in place, however, there is evidence that not all requirements were made. KESSP 2005-2010 <sup>[1]</sup>, July (2005) acknowledges that special education has not been integrated in all sub-sectors and program due to inappropriate infrastructure, inadequate facilities and lack of equipment. In addition to this inadequate capacity among teachers, inadequate and expensive teaching materials, low enrolment due to influence of taboos among others. These inadequate provisions of low vision services may have negative repercussions on the side of the learners. There should be continuous evaluation of the program in order to reduce if not to eliminate some of these inadequacies. The existing literature does not indicate that evaluation has been done.

### **Literacy for Students who are Visually Impaired**

The significance of blindness for a child's development

depends on many variable factors. A blind child who does not suffer from additional disabilities, who is well cared for by parents and is helped to compensate for his sensory loss is able to develop very much as others do. Guilford (1971) states that blindness does not present such severe obstacles to progress as compared to deafness

However, lack of vision narrows the child's experience to that which can be explored by touch, hearing, movement, taste and smell. Many things such as color, distant or objects which cannot be experienced by touch will never be comprehended normally. Very small or delicate objects may be difficult to comprehend and large objects like cars must be apprehended by integrating successive experiences by touch. Other important ideas such as numbers, shape and size have to depend on tactile experiences. A variety of sensory clues which are normally subordinated to vision assume much greater importance and value for making sense for instance, perception of movement, temperature, texture, sound, smell and moving around in an environment. An important task therefore, is ensuring that the blind and visually impaired child is helped to experience and learn through hearing.

Lack of vision has consequences which are probably even more fundamental for the child's intellectual and personality development and influencing the way the child learns to respond to his environment. The sighted students are continually open to visual stimulation and through the hearing may alert the child to certain aspects of the environment, the meaning of sound is less easily learnt when listening is not supported by looking, so the young blind child needs to be encouraged and helped to explore his environment without this help, he may be inactive.

The importance of literacy in the lives of people today is obviously very different than it was in 1829, when Louis Braille first published the description of his embossed code. While the ability to read and write was a skill primarily associated with aristocracy of the time, today, literacy is believed to be a prerequisite to independence and active participation in society. To provide a framework for the discussion of literacy for individuals who are visually impaired, Koenig (1992) suggested the writing skills that provided the foundation for continued learning and expanded literacy skills. It is demonstrated when an individual achieves an eight –grade reading level on an objective test that is presented in the preferred reading medium, with commensurate writing skills in the same medium.

Rehabilitation teaching is offered to the individuals who are visually impaired by professionals. The individual acquires practical skills and outlook needed to minimize the effects of visual impairment. Use of this skill can lead to increased independence, social competence and restoration of self – image, all of which contribute to carrying out the activities of daily living. Rehabilitation professionals provide skills training in the following areas;

1. Communication skills, handwriting, use of writing guides and aids such as tape recording and writing Braille, keyboard and computer skills.
2. Personal management, techniques for maintaining personal hygiene, grooming, societal etiquette and general organization skills in areas such as keeping track of appointment and work projects.
3. Home management; skills that will promote independence in the care and upkeep of one's living environment,

including cleaning techniques, food preparation, kitchen safety, money identification, telephone dialing and general home environment mastery.

4. Leisure and reaction; the individual with visual disability is trained in skills that improve manual dexterity, reaction and socialization.

The visually impaired people do not have more acute sense of hearing, touch and smell so they must develop the use of these senses to compensate for the loss of the sight. Being able to travel independently with safety and confidence is paramount to the rehabilitation and education of visually impaired people. The long cane system is the basis of orientation and mobility training.

Most people whose visual impairment is severe (blind) still have some useful residual vision which may be enhanced through a vision rehabilitation program. The vision rehabilitation workers can: access functional vision; help a visually impaired person understand the nature of his or her eye condition, assist individual with selection, adaptation and training in the use of low vision devices such as magnifiers and proper lighting adaptive and technical aids. Technical aids help with daily personal or occupational tasks, which may be affected by loss of vision.

The objective of the counselor about technical aid service is to provide visually impaired individuals with information and guidance to make informal decisions about the availability, selection, use and purchase of technical aids and devices. The professionals provide consultation on and demonstration of a variety of high and low-tech devices ranging from simple needle to thread to computers with voice synthesizers and / or large print magnification. Some devices include the following; magnifiers, talking calculators, watches, white canes, writing paper, large print playing cards and many other daily living aids.

In the case where a blind has been taken to a regular school, the teachers have to be counseled on how to handle them. But where the child cannot fit in to the school system, teachers are advised not to hesitate in recommending for the transfer of the child to a special school. The teacher being a human, should evaluate their motivation for teaching (money, love, convinces); one's attitude towards different students (hostile adolescent), one's acceptance of disability and one's feelings and reactions to perceive failure (frustration, anger, apathy).

#### Advantages of Integrated School

- This gives an opportunity to interact physically challenged learners with other abled-bodied learners in a wider social and educational environment.
- Special needs services for the physically challenged learners are provided which help minimize the barriers for better learning.
- Integrated school education helps physically challenged learners in order to prepare them to cope with mainstream higher educational setups.

#### Disadvantage of Integrated School

- Teachers are not adequately trained on dealing with learners with disabilities rather they depend on resource teachers for special care.
- The general teaching and learning methods and materials used in the mainstream education are not supportive for the physically challenged learners. The system depends on the

resource teachers for special care.

- The numbers of integrated school setups are nominal which do not allow large enrollment of required number of physically challenged learners. (UNICEF, 1999)<sup>[8]</sup>

#### Materials and Methods

This study was conducted in Ainamoi Sub-county of Kericho County, Kenya. A case study design was employed as Kothari (2003) states that, the case study method is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit, be it a person or an institution.

The target population comprised students and teachers in Kericho Tea Boys and Kipsigis Girls secondary schools. The students were put in two categories, one group of the sighted and the other group of students with visual impairment. Students were used, as they formed the study subjects of the integrated program. The author used a sample size of 200 respondents. All the students with visual impairment in the two schools were interviewed basing their total population which was very small as compared to their sighted counterparts in an integrated school environment. According to the constitution of Kenya Society for the Blind, one student with visual impairment is equated to a class of 40 sighted students.

According to Gay, quoted by Mugenda (1999)<sup>[5]</sup> it was suggested that for descriptive studies, ten percent (10%) of the accessible population is enough. In Kipsigis girls' there were 1200 students, while Kericho Tea secondary had 800 students hence a total population of 2000 students. Students with visual impairment were purposively selected because they have directly benefited or they are subject of the integrated program they were best suited in providing information on the proposed study. Given that each visually impaired student represents a full class of 40 sighted students, the representation of the 8 visually impaired students would be represented by 320 students hence sample size would be too large. The author opted to get half of the class of 40 hence 20 students were randomly selected from each class giving a total of 80 students representing the impaired group. The remaining 120 were sighted students randomly selected from each class. Teachers, education officer and a member of Kenya society for the blind as a representative from Non-Governmental Organizations that deals with support service for the students with visual impairment also played part in information collection.

Diverse methods of data collection were employed at various stages of the study as long as they were within the confines of appropriate sampling techniques. Data was collected through the use of the three types of questionnaires. The first type was designed for students both the sighted and the visually impaired. The second type of questionnaire was designed for the head teachers hosting the program in their school. The third type of questionnaires was designed for the teachers in schools hosting the integrated program. The data from the questionnaires were analyzed and presented in tables. Frequencies and percentages were used to compare different variables. Data was subjected to inferential statistics in which the analysis of variance, T-test and chi-square was used to test the hypothesis. This was done using the statistical package of social sciences (SPSS) which is a computer package used in analysis of studies. Data from interviews were analyzed using descriptive methods.

**Results**

**The integration programme in rehabilitating the students with visual impairment**

The author provided respondents with various question items on performance of students with visual in an integrated system. The respondents were to score “Strongly Agree”, “Agree”, “Undecided”, “Disagree” and “Strongly Disagree”.

In this regard, the author’s interest was on how each question item was scored affirmatively as “Agree” by the respondents.

**The success of integrated programme in rehabilitation of students with visual impairment.**

**Table 1**

Respondent	Frequencies	
	Teachers (N=32)	Students (N=160)
Those who agreed that integration has educated and rehabilitation students	10(31.3%)	70(44%)
Those who disagreed that integrated has not succeeded in education and rehabilitating students	22(68.8%)	90(56.3%)

The table above indicates that 90 (81%) of the students agreed while 70 (44%) did not agree. When further asked to give reasons why they did not agree, they cited a few cases where the visually impaired students have been forced to go away due to the problems they encountered in the regular school environment. First and foremost is the fact that the school administration does not induct them on their first year in school. Induction would make the other peer students aware of their presence in class hence leaving a new teacher to assume them only to discover in the course of marking their class assignments. This is detrimental not only to their academic performance but it also leads to their isolation hence beats the concept of integration.

When asked if visually impaired students have guidance and counseling teachers to meet their personal needs 6.3% agreed, while 93.7% disagreed giving the reasons that whenever they have problems they are not attended to. This is due to the fact that the schools have not inducted teachers on the needs of special education for the visually impaired students. The students with visual impairment explain that apart from their inability to see, there were those who have additional problems like epileptic or asthmatic. These types of students require regular medical attention; therefore it is not enough just to try to attend to their problems purely on visual issues alone.

On further discussion with blind students and those of visual impairment, the author found out that 2/3 of the students with visual impairment come from background where parents are unable to meet their needs, for instance they hardly pay fees; therefore forced to be out of class due to lack of fees. In many cases they have associated their parents’ inability with the handicaps; an issue that makes them feels marginalized. This really affects their psychology and often find a way of expressing their feelings whenever an issue provokes them, for instances they are known to be temperamental once provoked by their peers.

Asked whether students with visual impairment are given special attention for instance during the entertainment session in their school program, it was reported that they are also given radios to listen to. (96.9%) however disagreed. Although majority disagreed, they do not blame the school administration for the inadequacies of the resources in the school. The visually impaired and the blind form minority group which make it easily sidelined. They do not have proper

Table below shows a summary of the responses to the various question items and the corresponding frequencies and percentages at which they were scored as “Agree”.

This was to determine if the integrated education program for the visually impaired students have succeeded in attaining their main goal of educating and rehabilitating the students with visual impairment towards improving their social and survival skills.

channels of forwarding their grievances to those-in-charge of the program and the school.

On finding out about their views on students participation in school clubs and societies 36 (22%) agreed while 124 (78%) disagreed. Although a small percentage agreed majority of the students felt that they are being segregated and discriminated when it comes to active participation in games, clubs and school outing. For instance, they are stuck out of the list joining the others for inter-schools discussions. They are often made to stay behind in the school and also during the election of officials of those clubs. The students with visual impairment felt that they can also hold official posts of those clubs and whenever they are not given a chance they tend to feel left out in crucial decision making process of those clubs.

The school program had not included the needs of the students with visual impairment in their curriculum and extra curriculum activities. Active participations of students with visual impairment in extra curriculum activities would have been the most appropriate means of socializing them with their peers and also would enable them focus their mind into constructive events rather than just living them in isolation and regret in the situation they have found themselves in. inclusive curriculum and co-curriculum activities would enable the students with visual impairment and the blind to acquire knowledge and social skills that would enable them exploit their talents hence making them to be self-reliant.

**Testing and Analysis of Hypothesis**

**H<sub>01</sub>.** The student with visual impairment and the blind would perform better in special residential schools for the blind than when under the Integrated Education Program.

In order to test the study hypothesis, the author computed Chi Square values, using SPSS computer program, for a relationship between the sight status of the respondents (independent variable) and their response to the statement that students with visual impairment have suffered more by being brought in an integrated system (dependent variable). A Chi value of 0.950 was obtained, indicating no relationship between the two variables.

A two tailed spearman correlation coefficient test was computed on the same variables, and an r value of -0.024 was obtained. The two tests were therefore, consistent. This means that although many of the respondents support the presence of

visually impaired students in the integration education program, their sight status had no influence of their response. When the author computed the sight status of the students (independent variable), with their response to the statement that the integrated education program is viable, a Chi value of 0.067 was obtained. When a two tailed spearman correlation coefficient test was computed on the same variables, an r value of -0.180 was obtained showing a strong negative relationship between the two variables.

These further show that although 75% of the respondents said that the program is viable, their response was not influenced by their sight status. This finding thus rejects the hypothesis, which stated that “the visually impaired students would perform better in special residential schools for the blind than when under the Kenya Integrated Education Program”. An overall impression from the foregoing discussion is that integrated education program seems to be doing well and much can be achieved if the few challenges cited herein are dealt with accordingly.

### Conclusion

The Integrated Education Programme was a government strategy through the Ministry of Education aimed to reduce the stigma that the society has always had on children with disability in Kenya and the rest of the world. The need for evaluation of this programme arose from the implementation of Free Primary Education (FPE) which saw a large number of pupils enrolled in primary schools. The physically challenged groups were not left out. To determine whether integrated education program has played its role of rehabilitating the students with visual impairment, the author used teachers and students views on the same. The teachers felt that students in the integrated program have been made to suffer since they (teachers) have not been trained to handle the students with special needs. On the other hand, students felt that the visually impaired students are just like the others (sighted). This was supported by the fact that some blind and visually impaired students are performing better in class work as compared to the sighted ones. They also felt that, it is fair to be in regular schools with the other students to be adjusting and socialized with them. Despite all, they still felt that, there is still a lot to be done to enable them be rehabilitated both in the school curriculum program and social life.

The mathematics teachers noted that the in-service courses cannot address fully the needs of the students since more time is required after every lesson for the follow-up program so as to enable students grasp the concepts. Whenever, shortfalls occur like lack of writing materials, the students do not learn hence pile-up assignments. This makes them lag behind as others are much ahead in syllabus coverage. This study has shown that for the program of integration to succeed, there is need for concerted effort from all people and all aspects of life.

### Recommendations

1. From the study, teachers recommend that the students should be in a special school where full attention will be paid on every individual student and to facilitate proper development.
2. Handling of special cases ought to done people with special skills. Students who are not attended to may not be rehabilitating since their academic needs are not met hence

affecting their self-concept as well as their ability to socialize with their peers.

The Ministry of Education should widen the programme for students with visual impairment to be implemented in more schools, especially in the rural areas. The programme is crucial in enhancing the livelihood of the visually impaired students, as well as creating a positive public image towards children with disabilities both at home and in the community at large.

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