

**THE EFFECT OF INTEGRATION ON ACADEMIC PERFORMANCE FOR STUDENTS WITH VISUAL IMPAIRMENTS: A CASE STUDY OF INTEGRATED SECONDARY SCHOOLS IN KERICHO COUNTY, AINAMOI CONSTITUENCY, KENYA**

**Bornes Chepngetich Korir**

*P. O. Box 2031- 20200 Kericho, Kenya*

---

**ABSTRACT:** *Vision is ordinarily a very important source of information about the world, the 'stuff' on which cognition comes to operate. The provision of the low vision services in Kenya started in 1980s. Before then, all learners were educated as blind irrespective of their degree of vision loss. Christoffel Blinden Mission conducted a survey, which revealed that there was need to encourage children with low vision to use their sight, since they were using techniques for the blind. It was also discovered that 15-25% of the learners did not require special education services at all. This low vision services was first provided in the school for the blind students and then in the integrated schools. This paper thus sought to establish the effect on academic performance for visually impaired students brought about by this integration. To achieve this, the author considered carrying out a study in Kericho County. The study was done between September and November 2006 using a case study design. Questionnaires focus group discussion and document analysis were the main techniques used in data collection. A total of 200 respondents participated in the study and data was analyzed using both qualitative and quantitative methods. It was found that an integrated education program has recorded better performance for students with visual impairment than in the specially designed schools for the visually impaired students as perceived by students. On average, it was observed that students with visual impairments perform better than their sighted counterparts.*

**KEYWORDS:** Effect, Integration, Academic Performance, Students with visual Impairments.

---

## **INTRODUCTION**

### **Inception of integration**

In Kenya, the first special school for the handicap was the Thika School for the blind which was established in 1946. From then on, the government of Kenya has shown great concern in the provision of services to improve the welfare of the physically challenged persons in the country. Special education was established as a separate segment of the Ministry of Education; thereby making the ministry responsible for providing free but non-compulsory education to the physically challenged children (Ministry of Education Annual Report, 1977). It also established a special Education Inspectorate section and an administrative unit for the purpose of effective management and supervision of Special Education.

Special education has been provided in special schools and special unit attached to regular schools in areas of hearing, visual, mental and physical handicapped but more recently, it is provided through integration of the same in regular schools with accompanying support services (KESSP, 2005, p. 38). However, the demand for children with special needs at all levels in Kenya has increased as a result of the government's commitment to Universal Primary Education (UPE). The implementation of FPE saw a large number of children enrolling in the already 18,000 existing public primary schools including those with special needs. Therefore, the government was faced with the need look at the resources available in secondary schools in order to accommodate the masses that would soon need transition from primary to secondary.

Furthermore, a survey by Kennedy (1990) on academic performance of physically handicapped children found that, on average handicapped children in special schools were doing very well or better than psychically challenged children in regular schools at primary level. At secondary level, children in special schools were doing better than those in regular schools in national examination (Kennedy, 1990 as cited in Ndurumo, 1993, p.128). So, despite the popularity of the integrated education programme, there are inherent problems depending on whether or not children are integrated on fulltime or part time, and whether or not supportive services are proved (Ndurumo, 1993, p.19).

The International Council for Education with Visual Impairment (ICEVI) is a global association of individual and organizations that promote equal access to appropriate education for all visually impaired children and youth, so that they may achieve their full potential. One of their regions of coverage is Africa, which has 52 countries, Kenya among them.

In collaboration with other UN bodies such as UNESCO, UNICEF and WHO; ICEVI aims at creating awareness about the abilities of persons with visual impairment, providing education for visually impaired people and also providing in-service training for teachers and other professionals working with children with visual impairment. ICEVI also works with other non-governmental organizations like Christoffel Blinden Mission and Sight Savers International in expanding education opportunities in the African region. The works of CBM and SSI can be attested in East Africa sub-region and in Kenya particularly.

Owing to vastness of Africa, its weak economic resources and its large populations, the provisions of services to physically challenged persons are limited. Special education Bulletin for Eastern and Southern Africa, June (1987, p. 2) reveals that, the disability surveys in Africa indicated the wide gap between the educational needs of the disabled children and the services available. It is then not surprising that only one percent of the disabled children in the sub-region are enrolled in recognized special schools and program. The gap would widen if population growth rate remains high, yet at the same time the financial and human resources are inadequate. The building of more special schools for educating the disabled was not the best option due to the following reasons;

1. Separation/special school approach was becoming unpopular among the socialist (Ndurumo, 1993, p. 90).
2. It was unrealistic due to large number of physically challenged children that needed special education.

3. The International Agencies had sensitized the governments on Human Rights which guarantee access, quality and equality to education for all.

An alternative approach was then opted for and this was integration of the physically challenged children into ordinary schools/regular schools. Special Education Bulletin for Eastern and Southern Africa, June (1987, p. 6) 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 interchanged meaning with the term mainstreaming as it has been used by scholars researching on special education for disabled people. The other term that interchange meaning with integration is “inclusion”.

### **Studies conducted in Kenya**

Today, itinerant teachers across North America are typically employed to accommodate all children in a given geographical area rather than those with the specific criteria as visual impairment. Itinerant teachers work with children of various; ages, degrees of vision loss, ranges of needs from those with multiple disabilities to those who are gifted, and in some areas, from pre-school through high school graduation. Their role involves such things as administrative duties (for example ordering alternate format materials), direct instruction of disability-specific skills (for example, Braille, visual efficiency skills, use of assistive technology, orientation and mobility), preparing teaching (for example, materials in large print or Braille, tactile diagrams) tutoring in regular education subjects, consultation to parents and educators, minimal to extensive travel from school to school and participation in school meetings (Suvak, 1999).

As Lowenfeld (1975) portrayed in ‘The Changing Status of the Blind: From Separation to Integration’, opportunities for equality grew tremendously in the 20<sup>th</sup> century. This shifted from itinerant model to the integration model. Currently, grounded in the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994, p. 12), the move from separation to integration is evidence. Educational provisions for the visually impaired students, the administration of these provisions, and teacher preparation all moved from special or separated arrangements to integrated ones. This move has been consistently spearheaded and supported by legislation (Lowenfeld, 1975, p. 117).

### **Academic performance for handicapped students**

It is impossible to discuss cognitive development without reference to perception. Margaret et al, (1989, p. 161) defined *cognition* as a term used to refer to ‘thought processes which may occur without immediate perceptual experience’. Aspect of irregular cognitive progress in school-age children may well have their roots in infancy.

In the early stages of sensor motor development in which infants’ actions are largely directed toward themselves rather than outward to objects and events in the world, the scanty evidence suggests that there is little difference between blind and sighted infants. However, in the piagetian sub stage of secondary circular reactions roughly from 4 to 8 months of age, the infant activities begin to be directed outward and intentionality of action with respect to the world emerges. It is at this stage that emergent differences between blind and the sighted infants would be expected, since it is in large part the perception. Freiberg (1968) quoted by Margaret et al. (1989, p.161) noted that

the achievement of the object concept is delayed in blind children until 3 to 5 years in contrast to the typical estimate of two years for the sighted child.

Cognitive development can be considered as gradual progression from overt actions to internalized representation of actions and their consequences to fully representational thought that does not depend on immediate perception or action. Thus internalization is the key process in development although cognitive skills have implication for virtually every area of human behavior, the relationship of cognitive abilities to the educational experience is equally important. Cognitive serves as the basis for the assimilation of information and concepts that are taught in turn, the individual's cognitive abilities are influenced by the nature of the education that he or she receives.

The visually impaired person must build concepts on the basis of others than visual information. Foulke (1962) quoted by Margaret et al. (1989, p. 162) noted that the nature of the concepts of the visually impaired child is in some ways more restricted than those of the sighted child.

MacCuspie (2002) has shown that, in situations where physically challenged students are grouped together with those without handicaps, and within an appropriate environment, the handicapped students tend to averagely perform better than the other group of students. In a study by Ross (1988, p. 34) in Eastern and Southern Africa, visually impaired students performed dismally in an integrated program compared to when in their special-school environment. However, when the same groups of students were retained in an integrated program with facilities and conducive learning environment, they on average performed better than the sighted students. This implies that all students, visually impaired and the sighted ones have the same potential. The differences in terms of what each can do, results from social, cultural and physical environmental factors.

While studying performance among physically handicapped children in Western Kenya Ndichu (2004, p. 6) notes that, when given the right facilities and guidance, physically handicapped students performed better than their non-handicapped counterparts. For instance, he points out that in 2003, schools with physically handicapped students performed better than those with non-handicapped students academically. At the same time, students that had physical impairment performed better on average, as individuals compared to those without physical impairments.

The above literature has one important implication: that the learning environment is important for any student, whether impaired or not. Therefore, the visually impaired students within an integrated program should have little or no performance problems if the Ministry of Education provide for the necessary facilities in those schools.

## **MATERIALS AND METHODS**

This study was conducted in Ainamoi Constituency of Kericho County, Kenya. A case study design was employed as Kothari (2003, p.142) 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 of the study comprised students and teachers in Kericho Tea Boys and Kipsigis Girls secondary schools. The students were put in two categories, one group was the sighted and the other group comprised 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 considering 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, p. 43) 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 total population for students were 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 for the 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 others hence sample size would be too large. The author thus opted to get half of the class of 40 hence 20 students were randomly selected from each form giving a total of 80 students representing the impaired group. The remaining 120 were sighted students randomly selected from each form. Additional information was gotten from 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.

Data was collected through the use of questionnaires designed for students both the sighted and the visually impaired. 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 for Social Sciences (SPSS) which is a computer package used in analysis of studies. Data from interviews were analyzed using descriptive methods.

## **RESULTS AND DISCUSSION**

This paper aimed at investigating the influence of the integrated program on the academic performance of students with visual impairment. The author provided respondents with various question items on performance of students with visual impairment in an integrated system. Being Likert type of questions, 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. To that effect, the following table shows a summary of the responses to the various question items asked by the author and the corresponding frequencies and percentages at which they were scored as "Agree".

**Table 1: Influence of integrated program on academic performance of students with visual impairment as perceived by students**

Statement on performance	Frequency N=160	%
The visually impaired (blind) students can perform better than the sighted ones	30	19%
Performance of the visually impaired students would be better if they were within a specially designed environment (in terms of school or classes) that caters for their handicaps.	95	59.3%
Performance has nothing to do with whether one is sighted or blind	70	44%
Teachers tend to favour the visually impaired (blind) students when marking examinations.	25	16%
It is unfair to evaluate sight and the visually impaired (blind) students, when it comes to examinations, using the same marking scheme and/or curriculum.	80	50%

The study shows that 30 (19%) agreed that the visually impaired students can perform better than the sighted ones. This student cited an example of one of the visually impaired students who managed to score good grades in KCSE and qualifies to join a college. However, majority 130 (81.3%) of the students did not agree with the statements citing an example that, the two schools did not have enough teaching and learning materials and service to accommodate the needs of the visually impaired students. On further discussion with the students with visual impairment and the blind, they quoted an instance where one of them had to leave school because he felt he was wasting time. No one was giving him the assistance he needed in his class work.

Most students who have vision problem admitted that they are very slow in completing the assignment and similar problems are experienced during examination. In mathematics lessons, they expressed that they always fell asleep as the teachers illustrated and calculate the sum on the black board. It was during examination where they pointed out that, sometimes they are deal with topics on measurements and construction notwithstanding the fact that they are unable to use the calculators. They complained that they were not allowed to take home Braille's and they did not have tape recorders to take notes. All these factors contribute to poor academic performance and at the end of the day result in negative self-concept.

Although 95 (59.3%) of the students agreed that performance of the visually impaired students would be better if they were within a special designed environment (in terms of schools and classes) that gathers for their handicaps. They felt that in such a school, the program will be in accordance with the individual needs of each student. When the author sought the views of the blind and the visually impaired students, half of the students felt that they preferred being in a special school because they will have many things in common with their peers and so no one will make them feel they are not part of the group.

Those who did not agree with the statement were 65 (41%). This group supported their view by stating that, the visually impaired students are normal only that they need extra time because they

are slow in handling the assignments. They felt that the school should provide the needed services for the visually impaired in order to be integrated in a regular school.

When the students were asked whether performances has nothing to do with being sighted or not 70 (44%) agreed. This is because some of the visually impaired students perform better in classroom than the sighted ones. This was verified by research when he checked on their progress records from their class teachers. The 90 (56%) disagreed because visually handicaps denies the students to see and deduce information from what they have observed and it affects their ability to conceptualize as compared to the sighted peers. From the class records not all students were positively progressing, in fact there were those who have stagnated in particular subjects like Mathematics and Geography.

When students were asked whether teachers tend to favor visually impaired students while marking examination, 25 (16%) agreed citing cases whereby, the teachers might sympathize with the visually impaired student and the blind, thereby marking their scripts with leniency as compared to the rest of the students. The majority 135 (84.4%) did not agree. The author asked the students if it was unfair to evaluate the sighted students with the visually impaired when it comes to examination using the same curriculum, 80 (50%) agreed. This is due to the fact that the visually impaired students and the blind do not have the ability to see hence they require special attention to make them understand what is being taught. This applies also to type of examination and time allocated for each subject tests.

The students with visual impairment and the blind express the fact that reading passages and writing summary in English and Kiswahili has proved very challenging. The reason is that, many a times teachers require them to do a lot of reading yet the students' text books are in small print. The text books in the library are also in small print so they greatly contribute to their poor performance in languages and humanities. Sudden changes in curriculum and subsequent syllabus not only cause delays in printing teaching and learning materials for students with visual impairment but also causes delays in the syllabus coverage. This is because once the schools receive books with small print for sighted students; teachers will use them in their lessons leaving the students with visual impairment unattended hence contributing to poor academic performance.

The author also sought to find out whether it was unfair to evaluate sighted students and the students with visual impairment, 80 (50%) agreed with the statement. The respondents had a number of reasons for instance, they will have acquired little knowledge which will hardly enable them to pursue further studies nor join an institution that would finally make them earn a living out of employment and hence self reliant.

Those who disagreed were 50% and argued that an integrated environment is more challenging and so fruitful than the specially designed one. Therefore if all the necessary facilities are made available, students with visual impairment would perform better in an integrated program. It was also observed that the students with visual impairment have nevertheless shown some progressive in their class work even though their entry marks in form one was low.

## CONCLUSION

The study established that an integrated education provides a more challenging environment than the specially designed schools for the visually impaired students, and hence, the program has recorded better performance for students with visual impairment than in the specially designed schools for the visually impaired students as perceived by students. On average, it was observed that students with visual impairment perform better than their sighted counterparts.

## RECOMMENDATIONS

The Ministry of Education should widen the integrated education program for students with visual impairment to be implemented in more schools, especially in the rural areas. This is because such a program is crucial in enhancing the livelihood of visually impaired students, as well as creating a positive public image towards children with disabilities. From the study it is clear that students with visual impaired can perform better than their sighted counterparts when the resources are made available. Therefore, the Ministry of Education in conjunction with other relevant government sectors should come up with policies that ensure not only the resources are made available but also involve the local agencies to come up with informative campaigns at the community level with emphasis in the fact that disability is not inability. The author also recommends that a comparative study on performance of students in specially designed schools for the blind, and those that are in the integrated program be performed.

## REFERENCES

- Kennedy, V.W. (1990). An Investigation of Current Practices in Education of the physically handicapped in Kenya and their effects on curriculum development, exam and methods of teaching. In Ndurumo M., (1993). *Exceptional Children: Developmental Consequences and interventions*. Nairobi: Longman Publishers.
- Kothari, C.M. (2004). *Research Methodology: Methods and Technique*. New Delhi: New Age International.
- Lowenfiled, B. (1975). *The Changing Status of the Blind: Separation to Integration*. London: Oxford University Press.
- MacCuspie, M. (2002). *Access to literacy instruction for students who are blind or visually blind*. London: McGraw Hill Ltd.
- Margaret, C. W., Maynard, C. R. & Herbert J. W. (1989). *Handbook of Special education; research and practice Vol.3*. New York: Pergomon Press.
- Mugenda O., & Mugenda A. (1999). *Research methods and Quantitative and Qualitative Approaches*. Nairobi: Act Press.
- Ndichu, M.S.M. (2004). *Provision of low vision services in Kenya: A christoffel Blinden Mission Initiative*. Nairobi: Kenya Institute of Education.
- Ndurumo, M. (1993). *Exceptional Children: Development Consequences and Interventions*. Nairobi: Longman Publishers.
- Ross, P. (1988). *Education Handicapped young people in Eastern and Southern Africa in 1981-1983*. Paris: UNESCO.
- Suvak, O. (1999). *The place of the physically disabled in the society*. Nairobi: St. Paul's Publishers.
- UNESCO (1994). *The Salamanca statement and Framework for Action on Special Needs Education*. Paris: UNESCO.