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# INCLUSIVE EDUCATION FOR THE VISUALLY CHALLENGED STUDENTS IN PRIMARY TEACHER TRAINING INSTITUTIONS: A KENYAN PERSPECTIVE

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**Abstract:**
Globally, people with disabilities are among the poorest. Traditional development programs often fail to meet their needs for instance, by building new schools that are not accessible and in relation to resource provision, both human and material (UNESCO, 1993). The visual system can be justly considered as the dominant sensory modality in humans. Almost half the brain is devoted to sight, and about 70% of the total capacity of the brain devoted to processing sensory information is devoted to handling visual information. Studies of visual perception have revealed that there tends to be an antinational bias towards the visual modality (Shams, 2000). Less well known, perhaps, is that where there is conflict between visual inputs and other sensory inputs, either the overall perception is determined by vision, or else the nature of the perception in the other conflicting modality is modified by the visual information, rather than vice versa (Shore, et al., 2000).

**Keywords:** disabilities, visually challenged students, primary teacher training, Kenya

## 1. Introduction

The inclusive approach to development should be integral to all international development programs and all government development initiatives. Without a concerted effort to include the needs of people with disabilities, the Millennium Development Goals would not be met by 2015. Article 32 of the UN Convention on the

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Rights of Persons with Disabilities commits governments and the European Union to organizing their programs in an inclusive way.

Special education is important for human capital development as it prepares those who are most likely to be dependent to become self-reliant. In the developed nations the inclusive approach has been embraced to facilitate development. Special education has for a long time been provided in special schools and special units attached to regular schools. Kenya is changing to inclusive education through regular schools. However, special schools and units continue to cater for children with special needs in the areas of hearing, visual, mental or physical challenges (Ainscow, 1991). This leaves out other areas of special needs such as gifted and talented, psychosocially different, autism, multiple handicapped, specific learning difficulties and communication disorders.

The main challenges relating to access and equity in the provision of education and training to children with special needs include; lack of clear guidelines and support to the implementation of an all-inclusive education policy, lack of data on children with special needs and inadequate tools and skills in identification and assessment. This means that special education has not been mainstreamed in all education sub-sectors and programs. The situation is compounded by inappropriate infrastructure, inadequate facilities and lack of equipment, which makes it difficult to integrate special education in regular programs. Inadequate capacity among many teachers to handle children with special needs, lack of co-ordination among service providers, inappropriate placement of children with disabilities, inadequate and expensive teaching and learning materials and inadequate supervision and monitoring of special education programs further complicate the situation (Sessional Paper No. 1 of 2005).

The Government of Kenya is committed to the achievement of the Millennium Development Goals (MDGs) currently the sustainable goals (SDGs). As such programs under Kenya Education Sector Support Program (KESSP), especially the primary school infrastructural programs, make a major contribution towards achieving Universal Primary Education (UPE), which is the second goal under the MDGs. In order to ensure quality the Kenyan government is committed to providing qualified, competent and adequate teachers to all learning institutions in the country. Further, provision of quality teachers at primary school level lays the foundation of education in the subsequent sub sectors. For these reasons, the teacher education programme aims at producing adequate and qualified teachers for all the primary schools. In addition, the infrastructure programme, when developed and fully implemented in a holistic way, has the potential to contribute towards the achievement of the other MDGs. (G.O.K, KESSP, 2005)

The Government of Kenya continues to train primary school teachers in special education as well as sponsor training of those with special needs at varied levels in order to improve the capacity and facilitate inclusive education. Irrespective of these measures, access to special education, for those with special needs, remains limited. Putting this in mind, successful implementation of primary Teacher Training programs would ensure effective success of inclusive Education at primary school level. It is on the basis of this background that this study sought to investigate the effectiveness of Inclusive Education program for the visually impaired students in Primary Teacher Training Colleges in Kenya.

## 2. Statement of the problem

The Integration of the Inclusive Education Program (IIEP) for the visually impaired students in Primary Teacher Training Colleges (PTTC) in Kenya is a new phenomenon that was first realized at the Highridge Teachers' Training College in the 1980's. When Highridge Teacher's College was closed down later, these essential services were transferred to Asumbi, Machakos and Mosoriot Teachers' Training colleges, as a proximity representing different regions.

From the professional motivation of the researcher, it seems many of the visually impaired students require special attention from the tutors who seem to have limited training and exposure to special needs education. For effective integration of this program, there is need for elaborate strategies for capacity building and adequate training in the area of special needs education for the administrators, the members of both the teaching staff and the non-teaching staff and the student fraternity.

Despite the efforts by the Kenyan government to improve quality and relevance, primary teacher education continues to experience serious challenges that arise from a long history of underfunding. These include: Inadequate financial provisions, Lack of adequate and appropriate tuition equipment and materials, particularly in Learning Resource Centers (LRCs); Dilapidated physical facilities; Inadequate ICT infrastructure, equipment and materials; Inadequate, old and poorly maintained transport facilities Considering that these colleges had not been initially established with the visually impaired learners in mind, how prepared were these Colleges for the implementation of the inclusive program? What strategies for capacity building have the colleges put in place? How effective is the Inclusive program? What challenges have they experienced? What possible solutions can be offered to these challenges? What improvements can be made on the inclusive education program to make it better? It is from this background that this research focused on the effectiveness of the inclusive education program for

the visually impaired students in Asumbi, Mosoriot and Machakos Teachers' Training Colleges in Kenya.

## 3. Research Methodology

The researcher adopted a triangulation approach. This took into consideration quantitative approaches to assess the reliability of instruments and data analysis, and qualitative approaches which provided a detailed descriptive definition, that enabled the researcher to have an in-depth understanding and insight to what was happening The study adopted an Exploratory survey design with the intention of describing the nature of the existing conditions or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events. The target population for this research was the Public Primary Teacher Training Colleges in Kenya. Inclusive education is a new phenomenon in the Primary Teacher Training Colleges in Kenya. From the researchers' professional motivation, it seemed that many of the visually impaired students require special attention from tutors who seem to have limited training and exposure to special needs education. The study focused on Administrators, teaching staff, non-teaching staff, students, both sighted and the visually impaired, and Provincial Education officials in charge of special needs education. Three Primary Teacher Training Colleges were used during the study, these were, Asumbi, Machakos and Mosoriot. A total of thirty six senior administrators including Principals, deputy principals, deans of students and deans of curriculum of each institution were involved in the study. A total of ninety members of the teaching staff, thirty from each College. A total of thirty six non-teaching staff members, twelve from each institution and a total of one hundred and eighty students both sighted and visually impaired students, thirty sighted students and thirty visually impaired students from each institution were involved in this study. In total three hundred and forty two respondents were involved in the study. Stratified random sampling was used to select the teachers, and the students both sighted and the visually impaired. The two groups comprised of both male and female therefore stratified sampling was to cater for gender. Stratified random sampling involved dividing the population into homogenous groups, each group containing subjects with similar characteristics, as noted by Cohen et al. (2000). Stratified sampling helped to achieve the desired representation from various subgroups in the population. The researcher was however careful for if not carefully done, bias can occur resulting in some groups of the population being unrepresented.

Purposive sampling was used to select senior administrators, non-teaching staff and provincial education officers. The researcher handpicked the cases to be included in the sample on the basis of the researchers' judgment of their typicality. In this way, she built up a sample that is satisfactory to his/her needs as observed by Kombo et.al. (2006). The principal, the deputy principal, the Dean of curriculum and Dean of students of each selected institution and the Provincial Education Officials in charge of special needs education were interviewed. Koul, (1992) reported that the essential requirement of any sample is for it to be as representative as possible of the population from which it is drawn .However some of the challenges faced in population sampling include scope, Bias and poor accessibility to the population among others

Data was collected by use of questionnaires, interview schedule, observation schedule, and document analysis schedule whose validity were established by the experts from the department. The reliability of the instruments was established through a pilot study that gave an r=0.82. Descriptive statistics generated through SPSS program, in form of frequencies and percentages was used in the analysis and interpretation of data. Thematic analysis (categorization of related themes) involved analyzing the main themes as found in the study. This enabled the researcher to classify issues based on the objectives, identifying information that is relevant to each research objective.. Content analysis involved examining the intensity with which certain words and points of view were used with their frequency, which was the interpreted as a measure of importance, attention or emphasis. This enabled the researcher to draw up conclusions and come up with recommendations about the effectiveness of inclusive education program for the visually impaired students in Kenya.

## 4. Research Findings and Discussions

A total of thirty six senior administrators which included principals, their deputies, dean of students, dean of curriculum and their two deputies, teaching practice coordinator and the exam coordinators of Mosoriot, Asumbi and Machakos Teachers Training Colleges (T.T.Cs) were selected for the study. A total of 90 members of the teaching staff, 30 from each institution, were involved in the study. A total of 36 non-teaching staff members, twelve from each institution and a total of 180 students, 90 sighted and 90 visually impaired students, and 30 of each category from each institution were involved in this study. A total of 342 respondents were involved in the study. The questionnaire return rate was at 100%.

### 4.1 Viability of Integration Inclusive Program

To understand the level of preparedness of the institutions that provide inclusive training for the visually impaired students, the study sought to establish the respondents view on the viability of the inclusive program in the PTTC

To get their views, the respondents were asked whether bringing together the visually impaired students and the sighted students in the PTTC was good or not and 207 (60.8%) of the respondents agreed that it was indeed a noble endeavour. However 135 (39.5%) of the respondents disagreed asserting that it was not a noble endeavour as shown in Table 2.

**Table 2:** Viability of Integration of Inclusive Education

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| **Valid** | **Yes** | 207 | 60.5 | 60.5 | 60.5 |
| | **No** | 135 | 39.5 | 39.5 | 100.0 |
| | **Total** | 342 | 100.0 | 100.0 | |

The majority of the respondents 207 (60.8%) acknowledged that the integration of I.E was a good endeavour and gave the following reasons for its viability; The respondents observed that I.E was a step to sustainable development and that I.E provided the visually impaired students with an opportunity to contribute to nation building because disability is not inability; They also observed that the inclusive education program was a way of imparting skills, knowledge, values and attitudes essential for nation building to both the sighted and the visually impaired; The respondents further pointed out that the integration of I.E program lessens stigmatization and discrimination of the visually impaired in the wider society and is cost effective for the government.

Chess (1999) noted that education must be delivered with an acceptance of a new norm for the student population. Mankind need to embrace the idea of a universal society with space for all. The data collected seems to indicate that majority of the respondents are aware of the changes observed by Chess above, and therefore, point to the need to move forward. Inclusion is indeed a way forward.

Some of the respondents 135 (39.5%) observed that the program was not good and gave the following reasons for the same; The respondents observed that though the program had good intentions, the visually impaired students suffered because most lecturers were not trained in special needs education, and therefore lacked the knowledge, skills, attitudes and values essential in handling the visually impaired students.

The respondents observed that the visually impaired students strained while studying certain practical subjects, such as, social studies, art and craft and mathematics

among others which require sight and therefore the visually impaired students need to be separated from the sighted students; They further pointed out that the colleges lacked adequate funds to provide for the necessary special materials, special equipment and special resources essential for the success of the I E and that the visually impaired students need more time for training compared to the sighted students. Perhaps their view is an indication that the visually impaired students can perform better in special institutions, than in an inclusive setting. Lupart (2002) noted that this view can be considered to be narrow, not putting into consideration the fact that the visually impaired teacher trainees, will eventually have to interact with the wider community that comprises of both the disabled and the able.

**4.2 Level of Preparedness and Inclusive Education**

The study sought to investigate the level of preparedness of Primary Teacher Training colleges (PTTC) for the integration of the inclusive education for the visually impaired students. To achieve this objective, the following question was posed and answered in this study. What is the level of preparedness of Primary Teacher Training colleges for the Integration of Inclusive education for the visually impaired students? To answer this question data was generated from college administrators, teaching staff, non-teaching staff, sighted students and the visually impaired students.

The administrators' perspective on the level of preparedness focused on various levels. These included whether the administrators were prepared emotionally and academically before the inception of the Inclusive Education program, 6 (20%) of the respondents agreed that the administrators were indeed prepared emotionally and academically before the inception of the Inclusive Education program. However, 30 (80%) of the respondents disagreed, that the college administrators were well prepared emotionally or academically for the inclusive education program. On the availability of the teaching/learning resources, 36 (100%) of the respondents agreed that the teaching/learning resources were available at the inception of the program. On whether the colleges received any form of assistance from the government 9 (25%) of the respondents agreed that this was done, while 27 (75%) of the respondents disagreed to this statement. On the modification of structures to accommodate the visually impaired students, 27 (75%) of the respondents agreed that the structures were modified, while 9 (25%) of them disagreed. On whether special material resources were availed for the visually impaired students before the inception of the program, 36 (100%) of the respondents agreed, and identified the special material resources availed at inception as, braille machines, employing a transcriber, availing a transcribing machine, purchasing the thermostat machine, special tables and chairs for visually impaired

students, and special computers for the visually impaired students The above information was in agreement with what was revealed from the interview, observation and document analysis. All these have been summarized in Table 3.

**Table 3:** Administrators' Perspective on Level of Preparedness

| Level Of Preparedness | N | % Agreed | % Disagreed | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Administrators Emotional and Academic Preparation | 36 | 6(20) | 30(80) | 5.00 | .200 |
| Teaching / Learning Resources | 36 | 36(100) | None | 4.00 | .000 |
| Assistance From Government | 36 | 9(25%) | 27(75%) | 2.75 | .452 |
| Modification of Structures | 36 | 27(75%) | 9(25%) | 2.50 | .905 |
| Special Material Resources | 36 | 36(100) | None | 2.00 | .000 |
| Total | 36 | | | | |

Kirk (1972) observed that the visually impaired students who engage in motor related activities, such as, climbing, wrestling with sighted students, are more self-confident, and have well developed motor coordination. This seems to concur with the study findings that indicate that structural adjustments were done at the inception of the inclusive Education program. Perhaps it is important to prepare in advance to accommodate the visually impaired in an inclusive setting. The idea is that the student should be able to move about the institution independently without fear or doubt and therefore, structural adjustment can be a prerequisite to mobility.

The findings pointed out that 36 (100%) of the administrators agreed that special material resources were provided. This seems to point out that special material resources are paramount for the successful implementation of the I.E program. Perhaps this also points significantly, to the need of actively involving all the stakeholders in the preparation exercise from the inception of the Inclusive Education program.

Inclusive education is sometimes seen as an educational strategy based on human rights and democratic principles that confront all forms of discrimination, as part of a concern to develop an inclusive society and to ensure that all students receive additional resources and are not ignored or neglected. Ingule et al. (1996) stated that the government assistance needs to be reflected in the national education budget and the money availed to the managers immediately, to enable the institutions function effectively and efficiently especially in an Inclusive setting.

The findings show that only 9 (25%) of the administrators confirmed that the government was actively involved in the preparation for the inception of the visually impaired students, however 27 (25%) of the respondents disagreed to this statement. Perhaps government assistance was not widely realized by the majority of the respondents before the inception of the inclusive program because the finances were not released to the deserving authorities in good time, despite the government having budgeted for the financing of the I.E program.

The Teaching staff perspective on the level of preparedness for the integration of the I.E program included, their emotional and academic preparation, and none of the respondents agreed that they had been given any emotional or academic preparation with regard to the integration of the I.E program for the visually impaired students, before its inception. However 9 (10%) of the respondents were undecided, but 81 (90%) of the respondents disagreed to this statement, an indication that they were not prepared academically or emotionally before the inception of the I.E program.

On the availability of the teaching/learning resources, majority 63 (63.6%) of the teaching staff agreed, 9 (9.1) of the respondents were undecided, however, 18 (18.2) of them disagreed that teaching/learning resources were available before the inception of the I.E program. The respondents observed that, though the library had the relevant teaching/learning reference, the resources had not been translated to braille for use by the visually impaired students. On whether any form of assistance had been received from the government, 90 (100%) of the respondents disagreed. On whether the structures had been modified to suit the visually impaired students, 81 (81.8%) of the respondents agreed, while 9 (9.1%) of them were undecided. The respondents' observed that important structures, such as, toilets and bathrooms, classrooms and dormitories were not restructured to accommodate the visually impaired students.

On whether special material resources were made available before the inception of I.E program, 90 (100%) the respondents agreed. The respondents identified the resources availed in the PTTC at inception as, braille machines, a transcriber, transcribing machine, a thermostat machine, special tables and chairs for the visually impaired students, and special computers for the visually impaired students. The results are summarized in Table 4.

**Table 4:** Teaching Staff Perspective On Level Of Preparedness

| Level of Preparedness | N | % Agreed | Undecided | % Disagreed | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Teachers Emotional and Academic Preparation | 90 | None | 90(100) | None | .300 | ,900 |
| Teaching / Learning Resources | 90 | 63(63.6) | 9(9.1) | 18 (18.2) | 2.50 | .820 |
| Special Material Resources | 90 | 60(60) | 30(30.3) | None | 2.33 | .479 |
| Assistance from Government | 90 | 90(100) | None | None | 1.73 | .450 |
| Modification of S tructures | 90 | 81(81.8) | 9(9.1) | None | 1.73 | .640 |
| Total | 90 | | | | | |

Forlin (1997) noted that special educators and the class teacher can work together and prepare various innovative teaching/learning materials to impart education to the visually impaired students, 3-D models, audiocassettes, tactile diagrams; large print books, high contrast charts, and raised maps, prove to be excellent in this regard. It seems that all the PTTCs' did not have some of the resources observed by Forlin above.

Perhaps there are some structures that should have been put to perspective before the inception of the integration of the I.E for the visually impaired students in PTTCs. It seems the resources would ensure the comfort and stability of the visually impaired students.

The non-teaching staff gave their perspective on the level of preparedness for the integration of inclusive education. On whether the respondents had been prepared emotionally and academically, 36 (100%) of the respondents disagreed, an indication that the respondents were not given any emotional or academic preparation in relation to the integration of I.E. On whether the teaching/learning resources were made available before the inception of the I.E program, 27 (75%) of the respondents agreed. However, 3 (8.3) was undecided, while 6 (16.7) of the respondents disagreed that the PTTC were prepared with adequate teaching/learning resources for the integration of the I.E for the visually impaired students before its inception. The respondents observed that when the students go out for games and sports, most of the visually impaired students are not actively involved in games as sports.

On whether the colleges had received any form of assistance from the government, 33 (91.7%) of the respondents agreed, while 3 (8.3) of them was undecided. On whether the structures were modified to suit the visually impaired students, 12 (33.3%) of the respondents agreed that this was done, However, 6 (16.7%) of them were

undecided, while 18 (50%) of them disagreed to this statement. Further, the respondents revealed that, it was the furniture for the visually impaired students only that was modified. They observed that classroom accessibility including, libraries and the workshops, were not modified to suit the visually impaired students.

On whether special material resources had been availed in the colleges, 3 (8.3%) of the respondents agreed, However, 9 (25%) of the respondents were undecided, while 24 (66.6%) of them disagreed with the statement. The resources availed according to the respondents included, the provision of braille machines, employing a transcriber, availing a transcribing machine, purchasing a thermostat machine, special tables and chairs for the visually impaired students, and special computers for the visually impaired students. The results are summarized in Table 5.

**Table 5:** Non-Teaching Staff Perspective On Level Of Preparedness

| Level of Preparedness | N | % Agreed | Undecided | % Disagreed | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Non-Teaching Staff Emotional and Academic Preparation | 36 | None | None | 36(100) | .368 | .876 |
| Special Material Resources | 36 | 3(8.3) | 9(25) | 24(66.6) | 3.67 | .778 |
| Modification of Structures | 36 | 12(33.3) | 6(16.7) | 18(50) | 3.33 | 1.371 |
| Teaching / Learning Resources | 36 | 27(75) | 3(8.3) | 6(16.7) | 2.42 | .793 |
| Assistance from Government | 36 | 33(91.7) | 3(8.3) | None | 1.83 | .577 |
| Total | 36 | | | | | |

Hemphill, (2002) reported that inclusion could be created by removing physical barriers posed by stairs, doorways, toilets, and other architectural aspects imperative to accessing facilities in the institution for the physically challenged and the visually impaired students.

The findings indicate that the non-teaching staff, 36 (100%) were prepared emotionally and academically for the integration of inclusive education before its inception. 36 (100%) also indicated that structures such as toilets were not adjusted to suit the visually impaired students. Removing barriers of the teaching system by providing facilities for accessing information related to the curriculum and by providing awareness, sensitivity and solutions to all the stakeholders. This seems to indicate that the attitude, knowledge and values with which I.E was received in the

PTTCs' could have been distorted at inception, since even structural adjustments were not done according to the teaching staff.

The visually impaired students' perspective on the level of preparedness for the integration of I. E for the visually impaired student focused on their emotional and academic preparation, of which 6 (6.3%) of them were undecided, while 84 (84.7) of the respondents disagreed to this statement. The respondents observed that the lack of preparation was evidenced by the fact that some of the students, both sighted and visually impaired, did not have sympathy or empathy toward the visually impaired students.

On whether teaching references had been availed or not, 30 (31.3%) of the respondents agreed, while 62 (62.5%) of the respondents disagreed to this statement. The respondents observed that the language set books had not been translated into braille by the time the visually impaired students were admitted to the PTTCs. On whether the visually impaired students had received any form of assistance from the government or not 6 (6.7%) of the respondents were undecided, while 84 (93.3%) of them disagreed with the statement, an indication that they had not seen any government assistance.

On whether the structures had been modified to suit the visually impaired students, 72 (75%) of the respondents agreed that this had been done, while 18 (25%) of them disagreed that this was not done, the respondents observed that no structural modification had been done on the dormitories, classrooms and the sanitary blocks. On whether special material resources had been availed for the visually impaired students, 72 (75%) of the respondents agreed, while 18 (18.8) of them disagreed that special materials had been availed to the respondents The respondents identified resources availed as; braille machines, a transcriber, a transcribing machine, thermostat machine, special tables and chairs for the visually impaired students, and special computers for the visually impaired students These were confirmed further through the interview, observation and document analysis. The results are summarized in Table 6.

Table 6: Visually Impaired Students' Perspective on Level of Preparedness

| Level of Preparedness | N | % Agreed | Undecided | % Disagreed | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| V.I.S emotional and Academic Preparation | 90 | None | 6 (6.3) | 84 (93.3) | 4.63 | .615 |
| Assistance from Government | 90 | None | 6 (6.7) | 84 (93.3) | 4.63 | .615 |
| Teaching / learning Resources | 90 | 30 (31.3) | None | 63 (62.5) | 3.70 | 1.291 |
| Special Material Resources | 90 | 72 (75.0) | None | 18 (18.8) | 2.40 | .814 |
| Modification of Structures | 90 | 72 (75.0) | None | 18 (18.8) | 2.37 | 1.066 |
| Students Emotional and Academic Preparation | 90 | None | 6(6, 3). | 84 (84.9) | 2.36 | 1.067 |
| Total | 90 | | | | | |

Financial assistance is essential for purchase of educational materials for the visually impaired students, for extra expenses linked to I.E program activities, for minor improvements aimed at removal of architectural barriers in surroundings that intend to accommodate the visually impaired students. Cooper et.al. (2000) observed that the improvement of non-classroom spaces, help to link allies together such as, departments, parents, NGOs for common discussions. Perhaps this can apply to the PTTC in order to intensify the inclusion process. For instance: Support that place some focus on inclusive practice and on linking people and organizations in the community that can offer assistance.

Perhaps this involves; engaging people in relationships around an inclusion agenda, work towards having a non-teaching practicum component incorporated in teacher preparation where teachers in training would have direct experience and dialogue with the community that are involved with people with disabilities and their families. It seems that they can produce resources that would enhance the effectiveness of inclusive education.

The findings on Table 6 indicate that 6 (6.3%) of the respondents were undecided, while 84 (93.3%) of the respondents disagreed that the visually impaired students were prepared for the I.E program before its inception. Perhaps the colleges need to press for the kind of professional development opportunities that are needed and ensure that all the stakeholders are encouraged and supported to take part in those opportunities and to recognize the limits of what a given ally can do and deliver.

In agreement with the above findings, Oketch et al. (2007), advised that the institutions can identify "what's in it", that is preparedness, for the other partner to engage in the collaborative process and ensure educational strategies for collaboration with partners who are well-grounded and practical, taking into account real personalities' interests and strengths among others.

The sighted student perspectives on the level of preparedness for the integration of I.E for the visually impaired students focused on varied levels. These included their emotional and academic preparation, and 6 (6.3%) of the respondents were undecided about this, while 84 (84.7) of them disagreed with this statement. The respondents attributed the lack of emotional and academic preparedness to the fact that some of the students had excess sympathy or empathy toward the visually impaired students and did not show professionalism in their relationship with the visually impaired students. On whether the teaching references had been made available, 30 (31.3%) of the respondents agreed, while 62 (62.5) disagreed to this. On having received any form of assistance from the government, 9 (6.7%) of the respondents were undecided while 84 (93.3%) of them disagreed. On whether the structures had been modified to suit the visually impaired students, 72 (75%) of the respondents agreed, while 18 (25%) of them disagreed. On whether special material resources had been made available 72 (75%) of the respondents agreed, while 18 (25%) of them disagreed. The respondents pointed out that the resources availed included; braille machines, transcribers, a transcribing machine, a thermostat machine, special tables and chairs, and special computers for the visually impaired students. Summary of the findings are shown in Table 7.

**Table 7:** Sighted Students' Perspective on Level Of Preparedness

| Level of Preparedness | N | % Agreed | Undecided | % Disagreed | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| Sighted Students Emotional and Academic Preparation | 90 | 36(36.4) | none | 64(84.7) | 3.07 | .980 |
| Modification of Structures | 90 | 36(36.4) | 12 (12.1) | 42(42.4) | 3.07 | .944 |
| Teaching Reference Materials | 90 | 57(57.6) | None | 33(33.3) | 2.73 | .980 |
| Assistance from Government | 90 | 60(60.6) | none | 30(30.3) | 2.63 | .999 |
| Special Material Resources | 90 | 90(100) | none | None | 1.53 | .507 |
| Students Emotional and Academic Preparation | 90 | None | 6(6, 3). | 84(84.9) | 2.36 | 1.067 |
| Total | 90 | | | | | |

Madhumita et al (2004) noted that Inclusive Schools were built with the participation and agreement of all the educational stakeholders and viewed the students' learning process as a consequence of their inclusion in the school. These Institutions were based on the fact that boys and girls had to be recognized, and should recognize themselves, as members of the community to which they belong, regardless of their social context, cultural background, ideology, gender, ethnic group, or personal conditions resulting from a physical, intellectual, or sensory disability or intellectual giftedness. It therefore, seems important that the visually impaired students be made to feel as part of these communities by having all the stakeholders prepare both emotionally and academically before the inception of the inclusive program.

The findings shown in table 7 indicate that 60 (60.6%) of the respondents agreed that the government assistance was provided. This seems to show that the Ministry of Education support is essential in determining the institution level of preparedness, because as the policy formulators they should show direction for the implementation. Finance is another essential resource for the in-service of teachers, and the purchase of the teaching/learning materials for both the sighted and the visually impaired students. This is an indication that perhaps preparation can facilitate the interest and therefore intensify the effectiveness of the inclusive education program. Sufficient time also seem to be essential for effective preparation of the I. E as well as for planning, organizing, co-coordinating and evaluating the inclusive education activities in a PTTC.

Emotional and Academic preparation for all the stakeholders is essential for effectiveness, and efficiency of the I.E program. Perhaps training could enable the stakeholders to provide relevant services and guidance, which would propagate positive attitudes, values and hope to all involved. It seems that the expectations of the society provide the goals, guidelines necessary to give direction to the students. Adequate preparation for all stakeholders is thus vital and essential for the effectiveness of the implementation process.

A multiple linear regression was calculated to predict subject's identity and the level of preparedness (this was evaluated in terms of assistance from the government, special material resources, modification of structures and teaching references). A significant regression equation was found ($F(4,109)= 24,439$, $p<.05$), with an R of .473. Subjects' predicted identity is equal to 1.176 - .202 (modification of structures)+-9.115E-02 (special material resources) +-4.333E-02 (teaching reference materials) +.694 (assistance from the government), where identity is coded as 1- administrators, 2- teaching staff, 3- non-teaching staff, 4- sighted students, 5- visually impaired students.

## 5. Conclusions and Recommendations

From the analysis, it was concluded that the modification of structures like toilets, bathrooms, and classrooms dormitories and the library, and financial, material and humanitarian assistance from the government during the preparation stage for the integration of inclusive education for the visually impaired students, are the most significant predictors for the effectiveness of I.E.

Inclusion needs to begin from birth when the process of learning, development, and evolution begins. This progress should be shielded from neglect. The advantage of inclusion is that it introduces the disabled child to the mainstream of life right from the first day. The environment should be friendly but competitive. Teaching, training and grooming in the institution should be aimed at enhancing skills, abilities and techniques to actualize the challenges encountered. KESSP (2005) pointed out that ideally limitations and special needs are recognized and catered for with a focus on ability. Qualities like positive attitude, ambition and confidence are natured. The inclusive setup help to fine tune and sharpen the personality of the disabled child to be ready to swim the deep and dark waters of a tough and demanding world (Raymond, 1995). The conclusions of this study have been provided below based on the study objectives and the study findings.

### A. Adequate Preparation

Adequate preparation, as a conclusion was based on the objective of the level of preparedness. The duty, authority, responsibility and relations of everyone in the organizational structure should be clearly and completely defined where possible. The study findings revealed that; the modification of structures, provision of special materials, teaching references, and assistance by the government are viewed by majority of the respondents as the essential areas of preparation before the inception of the integration of inclusive education for the visually impaired students in any organization. The government support at this stage is seen as crucial too.

The Management policies greatly influence the effectiveness of the integration of Inclusive Education for the visually impaired students. The responsibility of a higher authority for the acts of subordinates is absolute. It is clear from the research findings that the role of the management in the integration of Inclusive Education for the visually impaired students in PTTC in Kenya is a crucial issue that needs to be diligently addressed, especially in this era of Education for all and Free Primary Education. All 36 (100%) of the administrators showed a positive attitude, and concern toward the viability of the integration of inclusive education, an indication that the

administrators have seen the importance of Inclusive Education and would be willing to give it a try.

The study thus concludes that, to effectively implement the inclusive education program, it is essential to make adequate preparations in advance The modification of structures, provision of special materials, teaching references, and assistance by the government are viewed as some of the essential areas of preparation before the inception of the integration of Inclusive Education for the visually impaired students in any organization. The findings revealed that the most essential predictor to the effectiveness of the inclusive education program is the government assistance. Thus, the study concludes that government involvement in the preparation for inclusive education is imperative and need to be realized form the onset of the program.

The recommendations section exposes further problems and introduces more questions related to Inclusive Education. The researcher has also made suggestions on how inclusive education can be improved, and based on the findings, has indicated the areas that deserve further investigations. The recommendations for this study were based on the study objectives, the findings, and conclusions of the study.

**B. Structural Adjustment**

The objective was to determine the level of preparedness of the institutions for the integration of the inclusive education. The research findings in this study reveal that currently the integration of inclusive education for the visually impaired students is not as efficient and effective as is expected by the Ministry of education. This study recommends that adequate preparations should be made before and after the integration process has been put in place. This would ensure that all the structures are put in place before the inception of the program. The parastatal bodies such as the Kenya Institute of Education (K.I.E) should improve the teacher- education training curriculum to incorporate special needs education, so as to equip the teachers with the knowledge, skills, values and attitudes that are essential for practical inclusive education. The Kenya National Examination Council (K.N.E.C) should set realistic evaluation strategies to address the needs of the varied categories of disability by liaising with the administrators, the teaching staff and the students both sighted and the visually impaired students.

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