

## Determinants of Best Self-Concept Enhancement as Per Programme for Visually Impaired Learners in Kenya

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### Abstract

Scholars try to advocate for placement of children with disability in inclusive education programme which they seem to believe is less restrictive in its learning setting. However, this debate is primarily based on philosophy and presumptions rather than empirical research evidence. Since children with disability and particularly visually impaired ones have different degree of visual impairment, their self-concept may not only be enhanced in inclusive programme but by any programme as long as it enhances most their self-concept. There was therefore need for a study to determine empirically which of the three programmes (Special, Integrated and Inclusive) enhances most the self-concept among visually impaired children in Kenyan primary schools which formed the purpose of this study that is the determinants of best self-concept enhancement as per programme for visually impaired learners in Kenya. One instrument was used in this study: pupils' self-concept. The population of the study was 291 pupils. A sample of 210 respondents was drawn from the population by a saturated sampling technique based on their sex. Data analysis was done at  $p \leq 0.05$  level of significance. The *t* test was used to test the relationship between self-concept and achievement. The data was analyzed using analysis of variance (ANOVA) structure. The study established that Inclusive Educational Programme seemed to enhance most self-concept among visually impaired children generally. However, Integrated Educational Programme tends to have least influence in the self-concept enhancement among totally blind children. The study therefore recommended that the lower self-concept observed among visually impaired learners should be enhanced by giving counseling and early intervention to those group of pupils with a view to helping them accept their disability. This study will be of significance to officers of the Educational Assessment and Resource Centre (EARC), parents whose children are visually impaired and the ministry of education (MOE) to enhance proper programme placement.

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**Keywords:** self-concept; special; integrated; inclusive; programme

### INTRODUCTION

Self-concept at school seems to be affected by the image that significant persons (teachers, parents, peers) have of the pupils (Cugmas, 1992) and social comparison with others in the same setting. Different social environments would therefore be expected to influence an individual's self-concept. Rohner's Theory as quoted by Munga and Wallander (2002) postulates that feeling accepted or rejected by one's significant others affects the manner one views and evaluates oneself and the world. However, feeling rejected by others leads to greater hostility, low self respect, emotional instability and unresponsiveness and a negative view of the world. Fulgosi and Masnjak (2003) observe that on recognizing the mechanisms of mutual functioning of the teacher on students' self-concept and achievements is extremely important for success of integrated students with special needs that are included in regular primary school classes since it has positive impact on their academic achievement as well as on their personal and social development.

Other factors which appear to influence the self-concept of students with special needs include: severity or degree of disability; age of onset of the disability; acceptance of the disability by parents;

type of schooling (education in regular or special school) and support; labeling; and identification group adherence (Wallander, 2002; Jamber & Elliott, 2005). There exist arguments that the fact that some children are labeled disabled and must be placed in Special Education Programme is eliciting debates among scholars. However, Tracey, Marsh and Craven (2003) argue that this debate has been based primarily on philosophy and presumptions rather than empirical research evidence. As much as scholars still maintain their argument for all inclusive education devoid of segregation of some children in Special Education Programmes because of some sort of impairment (Lipsky & Garner, 1987; Stainback, Stainback & Ferest, 1989), there was therefore a need for a study to establish which programme enhances most self-concept in visually impaired children in Kenya. This is because, according to Lowenfeld (1967), visual impairment covers a wide range of children which include: children who have never had any visual functioning; those who had normal vision for some time before becoming gradually or suddenly partially or totally blind; those with other impairments in addition to visual loss; those with selective impairments of parts of the visual field and those with a general degradation of acuity across the visual field. It is therefore imperative to treat these

cases differently as regard to their placement in educational programmes. The degree of impairment may therefore be a basis for assessment and placements of such children in programmes which best enhance their self-concept.

The basis of this study was formed due to the fact that children cannot just be placed in a programme just because the assessment teacher believe such a programme provide less restrictive environments for learning. However, the programme should be that one which enhances most self-concept in the child being placed for sustenance of high academic achievement. Ndurumo (1993) observes that draw back in placement of children in Special Educational Programmes without establishing which programme enhances most their self-concept may include:

- i. placing visually impaired children in programmes that follow curriculum meant for the sighted children;
- ii. aids and devices used by visually impaired children in most programmes are not available;
- iii. lenses used by visually impaired children in the schools are not provided freely to these children;
- iv. most teachers in classrooms serving visually impaired students do not have information or training regarding why it is necessary for these children to wear glasses;
- v. technology that is voluntarily used in programme for visually impaired children has not been made available in most Kenya's Special Schools.

Ndurumo's observation suggests that as much as most scholars are for all inclusive education devoid of labeling of some children as disable, draw back of such programmes are enormous and therefore need for a study like this to determine which programme enhances most self-concept among the two categories, that is totally blind and partially sighted children before their Programme placement in Kenyan primary schools. This is because, the fact that indiscriminate and equitable provisions of education for all children in Kenya does not necessarily mean placing them in regular schooling programme, however, it may mean placing the visually impaired children in the programme that enhances most self-concept in order to enable them attain higher academic achievements in life.

In support of this, Forlin (1998) observes that although all scholars are in agreement that placement of children who are impaired should be on the least restrictive environment, however, what constitutes this kind of environment varies with individual scholar. There was therefore need for such a study to determine empirically which programme enhances most self-concept among the two categories of visually impaired children in Kenya. With empirical data, effective placement of children with visual impairment may be attained. Scholl (1986) also asserts that the law provides for regular, complete

and non-discriminatory assessment to minimize erroneous diagnosis which in turn results in wrong placement and inappropriate programming. In order that a suitable programme may be planned for a child, he/she may need to be assessed or studied by a team of specialists from different fields. However, without information on which programme enhances most self-concept among visually impaired children there is still a likelihood that wrong placement may be done.

Studies have shown that a child with impairment may begin by having higher academic achievement, however, if such a child's self-concept is not enhanced, his/her academic achievement will go down. For instance, Marsh and Yeung (1997) found out that prior achievement in specific subject areas affect subsequent achievement after controlling for the effects of prior achievement. These observations imply that prior self-concept has significant effects on subsequent achievement beyond the effects of prior achievement alone. This therefore pre-empts the need for a study like this to determine which programme enhances most self-concept among visually impaired children in Kenya. Marsh, Byrne and Yeung (1999) also emphasize this by observing that based on the existing research using strong methodology; there is a clear support for a reciprocal effects model in which the largest paths are from prior academic self-concept to school grades. These observations suggest that correct placement of visually impaired children may have significant and positive effects on increasing their self-concept thereby improving their academic achievement.

Marsh (1990) posits that attainment of a positive academic self-concept is linearly related to subsequent academic efforts and persistence, course work selection, educational aspirations, attributes for one's own behavior, academic achievement, completion of high school and subsequent university attendance. The same idea is also supported by Craven (1997) who asserts that short-term gains in achievement are unlikely to be maintained unless there are corresponding gains in academic self-concept. However, he advances that enhancing a child's academic self-concept is not only a desirable goal but it is likely to result in improved academic achievement as well and therefore the need for the present study.

The authors therefore attempted to evaluate the Special Needs Education Programmes in order to determine which one enhances most self-concept among the visually impaired learners in order to improve their effective programme placement in Kenyan primary schools. The researcher therefore tried to meet the purpose of the study by testing the following hypothesis:

*HO1 There is no significant difference in terms of self-concept enhancement for learners who are visually impaired when placed in any of three educational programmes, namely special, integrated and inclusive.*

**RESEARCH METHOD**

The study adopted descriptive survey design. The population of the study was 291 standard/grade eight pupils. A sample of 210 respondents was drawn by a saturated sampling technique based on visual impairment. The study tested one instrument for this study: students’ academic self-concept. The instruments were piloted to establish their reliability and validity. For determination of reliability of the instruments, a test retest method was used after which a correlation coefficient was computed. Pearson Product Moment (r) of 0.72 was obtained to the students’ self-concept. Face validity of the instrument was attained by giving them to three experts in the field of study for review. Their comments were then incorporated during revision of the instrument. Quantitative data gathered were organized, coded and processed with an aid of SPSS computer package to generate means, percentages and F values (ANOVA) to test study hypothesis for the level of significance. Hypothesis was tested at  $p \leq 0.05$  level of significance. The information was then presented in terms of tables and text.

**Research Design**

The main objective of this study was to evaluate programme placement for learners who are visually impaired in relation to their self-concept in special primary schools in Kenya. A survey and a correlation design was used. The intervening effects of sex and visual impairment relationship was of interest, since the independent variable had occurred already. Independent variables was academic self-concept. The dependent variable was programme placement. Academic self-concept had two levels; that is high achievers and low achievers. Using

different categories of programme placement the survey research design enabled an investigation of the interaction effects of between and within of academic self-concept and programme placement.

**Study Area**

The study was conducted in special school programmes, integrated school programme and an inclusive programme in Kenya, all are for the learners who are visually impaired. In Kenya there are six special school programmes for primary pupils which are distributed almost equally in all the regions in Kenya except former North Eastern province. These were Kibos school for the visually impaired, St. Oda school for the visually impaired, St. Francis school for the visually impaired, Lucy school for the visually impaired, Likoni school for the visually impaired and Salvation army primary school for the visually impaired in Thika. The most established integrated programmes in Kenya were Kajjado Integrated programme for visually impaired, Kitui Integrated programme for visually impaired, and Kilimani Integrated programme for visually impaired in Nairobi. There was one inclusive education programme at Oriang’ school, The special schools and integrated schools catered for those who were visually impaired and this include the totally blind and learners with low vision while inclusive programmes catered for children with low vision. They were all co-education.

**Study Population**

The population of the study consisted of 291 Class eight pupils who were visually impaired, of which 168 were boys and 123 girls. This number included 168 pupils in special school programme, 92 pupils in integrated programme, 31 pupils in inclusive programme. Of the population, there were 210 with low vision and 81 totally blind.. The population distribution is shown in Table 1.

Table 1: Population distribution

Sex	Special Programme	Integrated Prog.	Inclusive Prog.	Total
Male	98	48	22	168
Female	70	44	9	123
<b>Total</b>	<b>168</b>	<b>92</b>	<b>31</b>	<b>291</b>

**Sample and Sampling Techniques**

A stratified sampling technique was used to select schools practicing Integration, Inclusive and Special Programmes. Saturated sampling was used to select 262 class eight pupils for the study while purposive sampling was used to select 38 class Eight Teachers, focusing on those who were teaching English, Kiswahili, Science and Social studies only. This translated to 152 pupils in special programme of

which 90 pupils were low vision and 62 totally blind. Integrated programme had 73 pupils who were low

vision and 9 totally blind. Inclusive programme had a sample of 26 pupils who were low vision and 2 who were totally blind. Of the 262 class eight pupils sampled, there were 123 girls and 168 boys.

The population and sampling frame showing programme and gender strata is shown in Table 2 and 3

Table 2: Population and sample frame for Programme strata

Category	Population	Sample	Percentage
Class 8 Pupils	291	262	90
Special.	168	152	90
Integrated	92	82	90
Inclusive	31	28	90

*Learners with low vision were tested for visual acuity using the Snellen chart.*

*The following was the selection criteria for the pupils:*

- i) those aged twelve years and above at the onset of the study;*
- ii) consent from parent/guardian;*
- iii) child willingness to participate in the study;*
- iv) visual acuity of 20/200 or less with a correction of glasses in the better eye.*

### Research Instruments

Instruments that were used to collect data were pupils' questionnaire for academic self-concept. The instruments is described below.

#### Pupils' Academic Self-concept Questionnaire

This was defined as the Student's Self Description Questionnaire Individual evaluation tool (SDQI) measuring various domains of academic competence. The three facets of self-concept: general, academic and subject specifics were measured by Shavelson Evaluation Model Instrument (Shavelson, 1990). The instrument consisted of fifty items, which required the respondent to tick or mark the appropriate answer. Each item used a 5-point likert type scale format that ranged from strongly agree to strongly disagree, indicating the extent to which the respondent agreed or disagreed with self-descriptive statements related to their academic competence. With the realization that this instrument had not been used so far, for pupils who are blind, a pilot study was done in order to identify and change those items that could appear to be unclear or difficult for the pupils to answer. The self-concept was therefore measured by percentage scores.

According to Shavelson (1990), this test is easy to administer, self-explanatory and can easily be understood by pupils of all grades. A score of strongly agree was marked 5 and strongly disagree marked 1. In some items, this was reversed to avoid dishonesty in answers given. The results were then standardized to z-scores using  $T = (10z + 50)$ . The total score was marked 100 and any score of fifty and above was considered high (L1) and below fifty considered low (L2). Psychometric properties relative to the multi component have revealed predictive validity co-efficient of 0.68 (grade 5) and 0.72 (grade 11), test re-test reliabilities of 0.64 (grade 5) and 0.72 (grade 11) over a 2 week lag. And Kuder

Richardson 20 internal consistency reliabilities of 0.59 and 0.66 for grades 5 and 11 respectively (Shavelson, 1990). The pupils Questionnaire on Self-concept is attached as appendix D in print and appendix G in Braille.

#### Validity of the Research Instruments

According to Shavelson (1990), Psychometric properties relative to the multi component have revealed predictive validity co-efficient of 0.68 (grade 5) and 0.72 (grade 11) for the self-concept instruments. For face validity, all instruments were given to three experts in the area of study to establish if they captured what the study was intended to do. The instruments were then corrected by incorporating the views of these experts.

#### Reliability of the Research Instruments

A pilot study was undertaken in one of the schools not included in the study and this included 29 pupils of which 18 were totally blind and 11 had low vision. These children had a wide range of abilities and visual impairments, and were of the same age range and from similar background as those that were used in the study. After the pilot study it was possible to determine which researcher made items pupils answered with ease and which ones they found confusing. The items found confusing were restructured to reduce the ambiguity and therefore enhanced the suitability and reliability of the study. Split-half approach was then employed in order to establish the level of reliability which was computed using Pearson's Product Moment method. A correlation coefficient (r) of 0.787 and 0.873 were found for self-concept and achievement tests respectively.

#### Data Collection Procedures

Permission was first granted by the ministry of education to carry out research in the public schools. A visit was made to the schools by the researcher and rapport was established between the researcher and the class teachers. During the administration of the research instruments, the researcher was assisted by the head teachers and the class teachers. All information given was treated with confidentiality. Explicit instructions were given verbally to ensure that the respondents understood the questions. There were sample questions in the form of examples which were read to all respondents and answered verbally before beginning the test. During the administration of the test, totally blind pupils used Braille writing,

while low vision respondents used large print. For those who could not read, the class teacher assisted them in reading.

### Data Analysis Procedures

All procedures based on the analyses of variance structure was conducted. In order to facilitate interpretation, negative items were reversed such that high scores represented high positive perception. Academic self-concept was described best by three factors namely, general self-concept, academic and subject specific. A score of fifty out of one hundred for Self-concept was considered a pass, while a score below fifty out of one hundred failed. The mean and standard deviation was used to indicate how widely

spread values are from the mean. Data analyses at  $p \leq 0.05$  level of significance were tested. F test was used to test the statistical significance of the postulated null hypotheses. Simple frequencies and percentages were calculated to enable an investigation of comparison on the responses of various groups for each question or item. Analyses of Variance (ANOVA) was used to measure the interaction effect of the dependent and independent variables.

### RESULTS AND DISCUSSION

Determine differences in terms of self-concept enhancement for learners who are visually impaired when placed in different programmes

Table 3 Differences in self-concept enhancement per programme

SOURCE	Sample (n)	$\bar{x}$	df.	Calc. Value	Critical value
Special Programme	152	61.7	150	0.771	0.195 /0.164
Integrated Prog	82	69.1	80	0.84	0.195 /0.164
Inclusive Prog.	28	74.6	26	0.99	0.195/0.164

The study attempted to determine if there was any difference in terms of self-concept for pupils who are visually impaired when placed in any of the programmes by testing the following hypothesis.

*HO1 There is no significant difference in terms of self-concept enhancement for learners who are visually impaired when placed in any of three educational programmes, namely special, integrated and inclusive.*

Mean of self-concept for pupils enrolled in the three different programmes were computed. The study found that pupils enrolled in inclusive programme had the highest (74.6%) mean score followed by those in integrated programme with a mean score of 69.1% and those in special programme trailed behind with a mean score 61.7%. Level of significance was calculated using Pearson's Product-Moment Correlation coefficient. The calculated value of the respondents in special programme was 0.77. Integrated programme, 0.84 and Inclusive programme was 0.99. The sample population for respondents in special programme was 152, Integrated programme 82 and Inclusive programme was 28. Taking (n-2) for special programme, the df being 150, Integrated programme, df being 80 and Inclusive, df being 26. The critical value at  $p \leq 0.05$  and  $p \leq 0.01$  on the table of values was found to be (0.195) and (0.254) for special programme, 0.250 and 0.325 for Integrated programme and 0.423 and 0.537 for Inclusive programme. In all cases the calculated value was greater than the critical value both at  $p \leq 0.05$  and  $p \leq 0.01$ , hence "r" being significant, therefore the null hypothesis was rejected and the alternative hypothesis accepted. One-Way ANOVA was also computed and an F value of 5.24 with a degree of freedom of between groups and 160 within

the groups. The computed F value was found to be larger than the critical value at  $p \leq 0.05$  and  $p \leq 0.01$  level of significance. This was found to be 0.195 and 0.254 respectively. The results showed that pupils gained higher self-concept when enrolled in inclusive programme followed by Integrated programme and then Special programme.

Self-concept has played a critical role in placement debate about whether pupils should be taught in special, segregated classrooms or in regular classes. Opponents of special class placement typically argue that the identification, isolation and segregation of these students tend to foster a negative self-concept (known as labeling theory). As consequences, in the past decade, there has been a strong movement towards the inclusion of pupils with disabilities into more heterogeneous educational environments based on the beliefs that the inclusion of pupils with disabilities will enhance their self-concept as they become more involved with the mainstream activities of the school (Sczivos-Bach, 1993). Research does not support the assumption that placing pupils with disabilities in regular classes with non disabled peers' results in enhanced self-concept (Chapman, 1988; Renick and Harter, 1989).

Proponents of special class placement argue that the environment of the special class, which is generally less competitive and consists of pupils with similar difficulties, reduces the anxieties and frustrations of pupils with disabilities, and as a consequence, fosters the development of a positive self-concept. Marsh and Johnston (1993) expanded this theoretical basis to include the effects of special class placement on children with learning difficulties. According to their findings, the academic self-concepts of pupils with

mild intellectual disability should increase when placed in segregated educational environments as their reference group experiences similar difficulties, and when these pupils make social comparison they evaluate themselves for more favourable. These results can be supported by (Dunn (1968) who recommended that many disability labels be abolished and pupils with mild intellectual disabilities be maintained in regular classes with special educators serving them within this environment.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

There was a significant difference among visually impaired children when placed in the three academic self-concept enhancing educational programmes. Inclusive educational programme therefore seemed to enhance most academic self-concept among visually impaired children in Kenyan primary schools as compared to either integrated or special education programmes.

There was no significant difference among totally blind children when placed in the three academic self-concept enhancing educational programmes. However, their mean scores in self-concept test indicated that inclusive and special education programmes seemed to enhance most their academic self-concept compared to the integrated educational programme.

There was a significant difference in academic self-concept among partially blind children when placed in the three self-concept enhancement educational programmes in Kenyan primary schools. However, both inclusive and integrated educational programmes seemed to enhance more self-concept among these children compared to special educational programme. However, children placed in the integrated educational programme seemed to have a higher standard deviation in their mean scores in self-concept test compared to that of inclusive programme.

### RECOMMENDATIONS

The study therefore recommends that children with visual impairment should be allowed to have a free choice of the schools they would want to attend in Kenyan primary schools.

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