



Self-Esteem and Academic Achievement: What are the Explanatory Variables among Girls with Hearing Impairment in Selected Secondary Schools for the Deaf in Kenya?

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ABSTRACT

This study sought to examine the explanatory variables on self-esteem and academic achievement of girls with hearing impairments (HI) in selected Secondary Schools for the Deaf in Kenya. The study was guided by Carl Roger's person-centred or client-centred theory. The study used an ex-post facto research design. Participants for the study were drawn from schools for girls with hearing impairment in Central and Western provinces of Kenya constituting a sample of fifty-three girls. Data were collected through questionnaires and interviews and analysed using the Statistical Package for Social Sciences programme. Rosenberg self-esteem scale was used to measure self-esteem dimensions whereas school academic scores were used to measure mean academic achievement. The study revealed that there was a moderate and positive correlation between self-esteem and academic achievement of girls with hearing impairments. The in-depth interviews indicated that the low achievement of girls with hearing impairments could be attributed to current curriculum which was not only less diverse but also that the mode of examination was too conventional and did not take into account the peculiar problems of learners with various disabilities. The situation could be improved through concerted efforts among various education stakeholders. Thus, it was recommended that the Ministry of Education through the Kenya Institute of Curriculum Development should devise a more diverse curriculum that could be examined through various strategies such as observation and use of sign language. It was further recommended that teachers should make deliberate use of positive reinforcement techniques geared towards the promotion of the self-esteem of girls with Hearing Impairment and encourage them to accelerate their quest to academic performance.

1. INTRODUCTION

1.1. Background to the Study

Kenya has made concerted effort to bridge the gender gap in education of girls on the understanding that gender disparities lead to more inequalities in meaningful lifelong education (Republic of Kenya/UNESCO, 2012). As a country, it recognizes that education is a human right and has put in place both legislative and long-term policy frameworks to ensure that basic education is available and free for all (Republic of Kenya,2012a,2012b; UNESCO,2011). To meet the national goals of education, recent policy initiatives have focused on dealing with key challenges such as access, participation, retention, equity, quality, relevance, transition and efficiency that take into consideration gender and geographical disparities (Republic of Kenya,2010a,2010b; UNESCO,2012, United Nations,2011). Numerous studies have shown the impact of maternal education, which plays a major role in determining the level of infant and child mortality (Orodho, 2014). Juma (1994) reveals that educating women so that they acquire information, knowledge and skills, increases their self-confidence and raises their status as full participating members of the society. They

also play a predominant part as educators for future generation (Juma, 1994; Orodho, 2014). In Kenya, women are said to constitute 50 percent of the country's population yet they are the poorest strata of the society. According to UNESCO estimates, nearly half of the women in developing countries do not know how to read and write (UNESCO, 1998, 2010). Nonetheless, it has been established that countries that have the highest rate of women illiteracy have also low enrolment rates for girls at primary to secondary education levels. A Report by Republic of Kenya/UNESO (2012) reveals that with very few secondary schools for children with hearing impairments available to graduates of primary schools in Kenya, relatively few join secondary schools and transit to post-secondary education. A gap exists that reveals lack of access for girls with hearing impairments to post-secondary education and likewise to professional training and career upward mobility. In addition, the Kenya National Examination Council (KNEC), which is a body mandated with the responsibility of assessment and evaluation of academic standards shows that the performance of girls with hearing impairments is low in Kenya Certificate of Secondary Education (KCSE) examinations in special sampled schools between 2003 and 2006 (KNEC, 2006).

Table 1: Performances in Special Schools from 2003 to 2006 in Kenya Certificate of Secondary Education

Centre Name	Gender	2003		2004		2005		2006	
		Entry	Mean Score						
Rev. Muhoro (HI)	Female	33	2.7	19	2.2	26	2.8	26	2.5
	Male	17	2.0	27	2.7	17	3.4	19	2.6
Joy town (PH)	Female	14	4.9	10	4.9	21	5.0	23	4.7
	Male	14	6.3	10	6.4	20	5.2	9	4.6
Thika Sch. For Blind	Female	13	5.2	20	4.8	25	5.4	18	6.1
	Male	31	5.0	28	5.1	28	6.0	36	5.8
St. Angela Mumias (HI)	Female	7	3.7	14	2.2	16	1.5	16	1.4
	Male	-	-	8	2.6	9	2.3	-	-

Source: Kenya National Examinations Council (2003-2006).

It was on this premise that the need to focus on the individual girls' competencies and experiences arose. The fact that several factors such as school environment, lack of resources, family status and communication barriers had been observed. Little was known concerning personal self-esteem. However, the Kenya government through its initiative to provide free education has enabled parents to send their children to school without much strain. Great sensitization on change of attitude towards persons with disabilities through media, workshops and policy frameworks, had also brought about attitudinal change that had led to the introduction of inclusive education, which was a great celebration in the schools. With all these measures in

place, performance of girls with hearing impairments was low hence it was felt that there was a strong need to investigate the underlying factors of which the search for individual self-rating was to be considered.

Self-esteem was viewed as the affective or evaluated counterpart to cognitive representations of the self (Brown, 1998). It was widely acknowledged as having a strong influence on psychological orientation of the individual, including motivation to engage in efficacious behavior. According to Brown (1998), the experience of being competent to cope with the basic challenges of life emerges from one's self-esteem. This consists of two components, the self-efficacy which is confidence in one's ability to think, learn, choose and

make appropriate decisions and self-respect, which is confidence in one's right to be happy and by extension, confidence that achievement, success, friendship, respect, love and fulfillment are appropriate to oneself. In essence, one's confidence provides strengths to participate in various activities of choice and as a result, gain experience.

Educational achievement on the other hand has great value to human beings and the society in which they belong. That is the reason for every nation to monitor the progress of its citizens through organizations or bodies like KNEC, to keep track of educational performances or achievements irrespective of gender, disability, colours and religion. For instance, in Kenya, the KNEC records (Table 1) reveal the gap that exists in the performance of girls with hearing impairments (HI), which was the focus for this study. Despite the fact that several studies have been carried out to investigate factors affecting educational development of children with disabilities, no study has investigated the personal or the intrinsic factors which were focused on, that are "self-evaluation".

1.2. Statement of the Problem

Academic achievement of girls with hearing impairments has been low and continues to be low perpetuating a need for investigation. A gap exists in their academic performance as compared to the performance of boys with hearing impairments or compared to other girls with other disabilities (visual impairments and physical impairments). The KNEC performance for the years 2003-2006 as shown in (Table 1) reveals this disparity. Many factors could be contributing to the low performance such as school environment, family status or communication barriers which other scholars have studied (Murugami, 2002; Mwathi, 1998; & Oliwa, 1998). However, other personal factors such as interest, competence, value and responsibility could be major contributors for dismal or low performance. An early intervention in terms of coming up with tangible findings that would enable initiation of appropriate guidelines to boost their performance at this level is crucial. It was against these backgrounds that need to find out the explanatory variables behind self-esteem and academic achievement of girls with hearing impairments was premised.

1.3. Purpose and Objectives of the Study

The purpose of this study was to examine the explanatory variables explaining self-esteem and academic achievement for girls with hearing impairments in Kenya. The specific objective of the study was to determine the relationship between self-esteem level and academic achievement scores of girls with hearing impairments in selected secondary schools for the deaf in Kenya.

1.4 Hypothesis

H_0 : There is no significant relationship between the self-esteem level and mean academic achievement scores of girls with hearing impairments in selected secondary schools for the deaf in Kenya.

2.0 RESEARCH METHODOLOGY

The study used an ex-post-facto research design incorporating both the correlation and qualitative approaches to interpret the results of the test of null hypothesis. The ex-post fact research design was chosen because the condition of the learners and the results had already occurred as is expected in such designs that do not manipulate any independent variable (Orodho, 2009a, 2012). The correlational strand enabled the researcher to determine the relationship between variables through the use of correlational statistics (Gall, Borg & Gall 1996; Orodho, 2009b). Orodho (2012) notes that in a correlational research, relationships among two or more variables are studied without any attempt to influence them. Orodho (2009a, 2012) and Brooks (2013) contend that a major purpose of ex-post-facto-research design of a correlation subtype is to clarify an understanding of important variables that have already occurred through the identification of relationships among variables. Self-esteem is the main independent variable and academic achievement as the dependent variable. The study was conducted in two secondary schools for students with hearing impairment that offered academic curriculum. The schools were situated in Western and Central Provinces of Kenya. The choice of the regions was due to:

- The accessibility of the schools to be studied.
- The availability of girls with hearing impairments at secondary level following only an academic curriculum.

Other schools practiced integration or offered technical and vocational programmes.

The first school was Reverent Muhoro Secondary School, which is a mixed secondary school for students with hearing impairments situated in Central Province of Kenya. At the time of data collection, there were three streams in the school, two were for hearing students and

one stream was for students with hearing impairments. The school had a total population of 240 students. Girls in the school comprised about 40% of the total number of students. All girls and boys with hearing impairments were boarders. The school had a team of teaching staff employed by Teachers Service Commission (TSC) and two others employed by the Board of Management (BoM). In total, there were twenty teachers. The school received donor support from organizations such as Seaford and Sevens of United Kingdom (UK) whereas Presbyterian Church of East Africa (PCEA) sponsored the school in terms of supplying hearing aids to students. The school was equipped with a makeshift laboratory, an audiometry room but not furnished with appropriate equipment and a home science room, which, was also not well equipped. However, the school organized an outreach programme, which enabled students to interact with community members in activities like clean-up, church meetings and youth organizations.

The second school was St. Angela Mumias Secondary School for the deaf girls situated in Western Province of Kenya. It was a girls' secondary boarding school. It was established in 1970 by Ursuline Sisters of Holland. Their main mission was to help poor and disadvantaged girls. They were particularly interested in girls with hearing impairments to receive education. They started St. Martins Primary School for the Deaf. With only three girls at primary school, the sisters thought it wise to involve the girls in sewing, stitching and handcraft using papyrus reeds. By 1976, there was need to graduate the girls and move them to secondary

section. At that point, they were five in number as pioneers in a secondary school. Today the school has expanded and has a population of 189 girls with hearing impairments. Girls in the school were all boarders and came from all over Kenya and other countries like Uganda, Tanzania, Somali, Sudan and Mozambique.

Target population comprised all girls with hearing impairments in secondary schools for in Kenya. A total population of about 300 girls with hearing impairments in secondary schools was targeted. The two schools were purposively sampled since they were the only secondary schools for girls with hearing impairments that provided an academic secondary school curriculum in Kenya and had adequate number of girls taking academic curriculum. The two principals of the sampled schools were as well purposively sampled since they were the administrators who would provide necessary rich information for the study.

All girls in every class participated in the study but still they were not the expected number. For instance, at St. Angela Mumias Secondary School, the expected number of participants was 32 yet only 30 girls were available and responded. At Reverend Muhoro Secondary School, the expected number was 24 yet only 23 were available and responded. In total, a sample of 53 girls with hearing impairments participated in the study constituting a 40% out of the total population of 140 girls with hearing impairments as shown (Table 2). The study only focused on relationship between self-esteem and academic achievement of girls with hearing impairments.

Table2: Target population and Study Sample

School	Number of Total Girls	No. of girls with Hearing Impairment	Responded	Percentage
Reverend Muhoro Secondary School	60	24	23	40
St. Angela Mumias Secondary School	72	32	30	40
Total	132	56	53	40

The research instrument for the study was a questionnaire that was an adaptation from Rosenberg's self-esteem scale. This data-collection instrument typically inquired about the feelings, motivations, attitudes, accomplishments and experiences of individuals. Examination grades for the last four terms for each participating girl were recorded and analyzed. Grade range was as follows: **E**= 0-39 (Very poor), **D** =40-49 (Poor), **C** =50-59 (Average), **B** =60-69 (Good) and **A**= 70-100 (Very good).

The pilot study was conducted in Kambui Secondary School, which had an integrated programme for girls with hearing impairments. Brooks 92013)

reveals that piloting provides opportunity for the researcher to test his/her confidence in identifying difficulties and obstacles that could affect the actual collection of useful data. Data for the study was collected using questionnaires, interviews and observation checklists. Self-esteem variable was reflected as positive/high or negative/low. These dimensions were arrived at through responses captured on a four-scale Likert-scale which covered strongly agree, agree, disagree and strongly disagree. The academic achievement were measured using past examination grade scores indicated as **A** =70-100 marks, **B** =60-69, **C** =50-59, **D** =40-49 and **E** =0-39. Data for the study were analyzed using the Statistical Package for Social

Sciences (SPSS) programme. The descriptive statistics were used to describe and summarize the data in reference. The statistical hypothesis was tested using Pearson's Product Moment Correlation Coefficient, r . Qualitative data from in-depth interviews were used to explain the results of the tests of hypothesis. The qualitative data was analyzed thematically and reported in narrative form.

3.0. FINDINGS AND DISCUSSION

3.1. Self-Esteem Ratings by Girls with Hearing Impairments

To determine the relationship between self-esteem and academic achievement, the researcher provided the respondents with a questionnaire on the Adapted Rosenberg self-esteem scale as shown in Figure 1. The self-esteem rating was conducted through the use of a four Likert scale. With respect to students with HI perceptions regarding the extent to which they considered themselves able to do things as well as their un-challenged colleagues, 56% of reported that they had the ability to do things as well as other people. Cumulatively, over 90 % were of the opinion that they did not need sympathy as persons with disability but opportunity to demonstrate their abilities. With regards to possessing good qualities, 62% of girls with hearing impairments reported to possess good qualities, meaning that they were positive towards themselves. In

total, over 90% of the girls with HI either agreed or strongly agreed that they possessed good qualities just like their un-challenged counterparts. These findings concur with Murugami (2003) that learners with special needs have internal locus of control and positive self-concept.

With regards to self-pride, an overwhelming 98% of girls with hearing impairments felt they had a lot of qualities to be proud of while 93% of girls with hearing impairments expressed the need for self-value and admired to be what they were irrespective of the hearing impairments. They were quite satisfied as people who deserved dignity and passion as any other human being. In terms of being satisfied with themselves, 83% of the respondents conveyed acceptance of their self-worth. They reported to possess what it takes to be a worthy person. They can interact with other people and socialize freely. They reported on an interview schedule that they could perform physical duties as others except in oral communication where they face challenges. This finding is in agreement with Baumeister (1991) who had documented that self-worth is derived from a person's sense of confidence in what he or she does and believes. Since the girls believed in their worth as equal partners in the society, it revealed the positive spirit they possessed. They only need encouragement by the hearing people in areas they face challenges like in audition and speech. The hearing society can adapt modes of communication to accommodate the ideal situation in which both groups can appreciate and be able to interact freely.

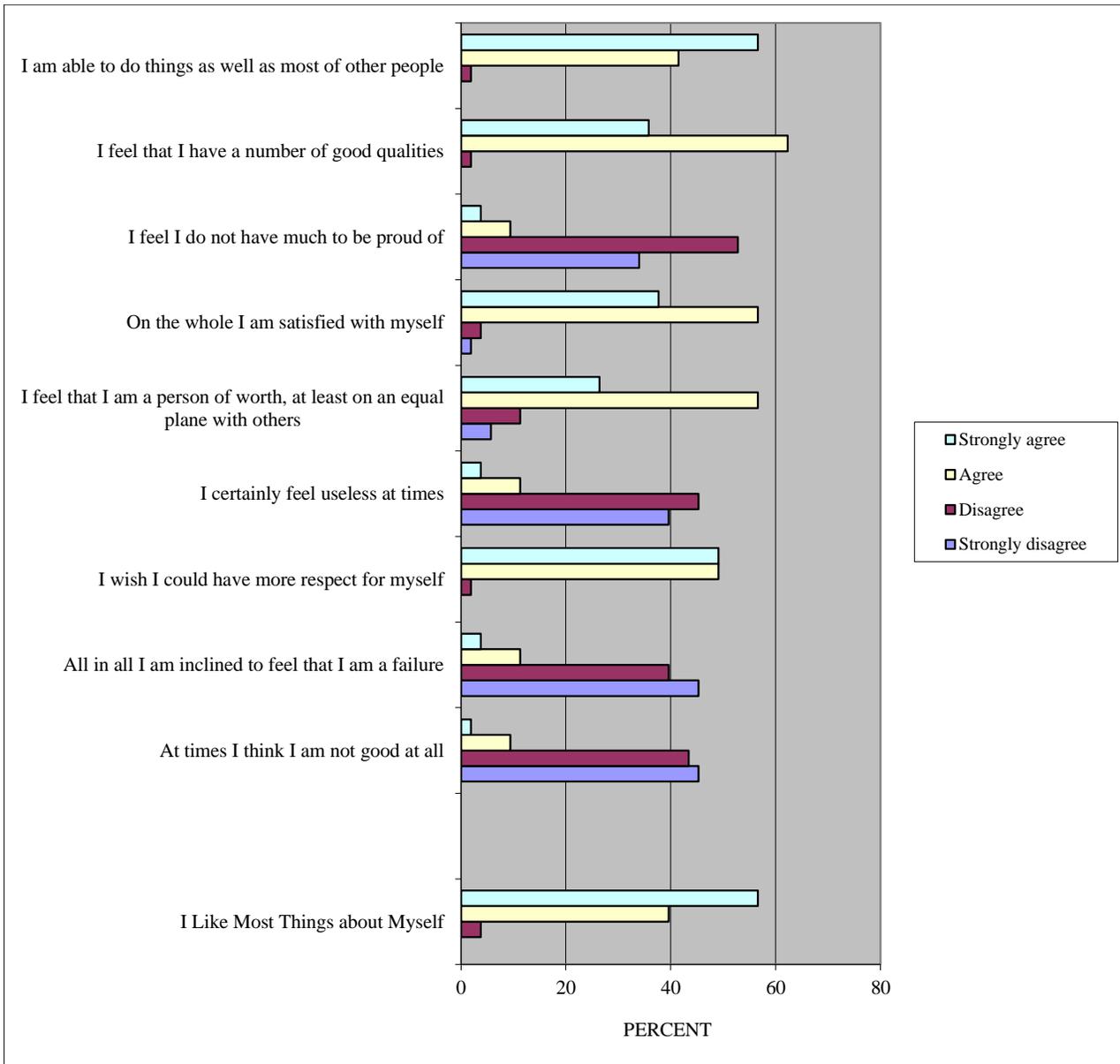


Figure 1: Respondents' self-evaluation on self-esteem scale

In terms of self-worth, majority of the girls with HI comprising of 86.5% revealed that they could not succumb to the feeling of inferiority and were able to deny that fact. Instead, they demonstrated their willingness for independent thinking and the right to dispense their opinions. However, the smaller percentage (13.5%) exhibited their right for self-evaluation and assessment, which revealed their honest acceptance of inability to fulfill their dreams. They agreed that they certainly felt useless at times. This finding is in tandem with Higgins (1987) and in Brown (1998) who observed that people are prone to feelings of guilt and anxiety when their perceptions of who they are at present do not coincide with their ideas about who they think they ought to be. Perceptions of who they were as girls with hearing impairment demoralized them and denied them what they expected to be in life. Hearing impairments made them to feel incapable and

as such resolved to despair in life, not being committed to studies and rationally engaged in other social activities at school such as grooming and vocational activities at the expense of academic work. In addition, the results seem to echo Schelsinger and Meadow (1972) observations that adolescent girls with hearing impairments have low aspirations as compared to their hearing counterparts. With regard to whether or not they felt they needed respect by other un-challenged counterparts, majority of girls with HI, comprising an overwhelming 98% of the girls were unequivocal that they wished to be respected by other people. This finding is in line with what Brown (1998) established when he noted that attempts to define self-esteem ranges from an emphasis on primitive libidinal impulses to perceptions that one is a valuable member of a meaningful universe, that is, he/she is respected by others. In a similar vein, these findings are in line with

what Rosenberg, (1979), Schooler, Schoenbach & Rosenberg (1995) earlier reported that self-esteem is a function of reflected appraisals of close family members and friends, parents or other close adults like teachers. They conclude that perceptions of self-worth or self-esteem results from social attachments to close friends and family members and the respect they offer to the individual member. Schwalbe and Staples (1991) also observe that respect reflects positively on a person and provided interpersonal support. These researchers conclude that self-esteem results from reflected appraisals in one's immediate social network such as teachers, parents and friends. With respect to personal feelings of self-worth, a huge percentage of girls with HI, constituting 84.8% of the total sampled revealed that these girls possessed positive feelings about themselves and were not obliged to feelings of inferiority.

This finding is in tandem with Oglivie (1987) who earlier observed that people think of themselves in terms of what they are afraid of becoming or do not want to become. For instance, one fears to be a failure in business or to be dependent on one's children. Oglivie (1987) refer to these images as aspects of undesired self and suggests that they play an important role in how happy and satisfied people are in their lives. He posits that the greater the psychological distance between how we think of ourselves now and what we fear becoming; the happier we are in life. The potential negative self-images also serve as important motivational incentives. Such negative self-images could enable people to work hard in an attempt to avoid the negative identities. With regards to perceptions of self-worth, 98 % were of the opinion that they were as good as their un-challenged counterparts. This finding was rather encouraging as Wheaton (1980) counsels that continued experience of failure in the face of effort leads to a sense of powerlessness and helplessness. He notes that sometimes one would feel not good at all but the moment one experiences success, then, his/her feelings lead to a sense of personal control, characterized by instrumentalism and an active approach to life. Mirowsky and Ross, (1989), Seeman and Seeman, (1983) note that perceived powerlessness (the opposite of a sense of control) is a belief that outcomes of situations are determined by forces external to oneself such as powerful others, luck, fate or chance and that one has little control over meaningful events and circumstances in one's life. Powerlessness is the cognitive awareness of a discrepancy between one's goals and the means to achieve them determines one's choice of action. The majority of the subjects in the study did not acknowledge the feeling of being powerless or helpless. Finally, with regards to self-actualization, majority of the girls with HI, comprising 94.4% of the totals were unanimous that they liked most things about themselves. The findings contrasted with Yee, Watkins and Crawford (1997) findings. They conducted a study on self-esteem and hearing impairments of secondary school students. They found that the self-esteem of females with hearing

impairments was not as high as for the males with hearing impairments in a number of dimensions of the self-such as self-worth, capability of performing acts and taking responsibilities. Majority of the subjects in this study were girls and demonstrated that they liked most things about themselves.

3.2. Academic Achievement Rating and Self-Esteem

Observations of the academic records were presented featuring records of performance for girls with hearing impairments per class per term for the previous four terms. The information was collected from school documents on academic results for individual students every term. Records of performance for 23 girls from Reverend Muhoro and for 30 girls from St. Angela Mumias was collected and analyzed. Classes that were involved in the study were class two, three and four. Form one students were exempted because they had appeared examination in only one term and so they did not qualify to be included in the study. Academic records for form two in Reverend Muhoro Secondary School during term one of 2007 revealed that out of eight girls in the class, only two had scored above average mark of 650. The other six scored below average. Only one student consistently scored above average mark in terms two and three of 2007 as well as in term one of 2008.

Class three had seven students who participated in the study. Out of the seven students only one student consistently scored above average mark of 650 in all the three terms in 2007. In term one of 2008 the same student scored above average mark of 650. Eight students from class four of the school participated in the study. It emerged that no student at form four managed to score an average mark of 650. The highest average mark was 384 and the lowest was 95. It was quite obvious that marks scored during 2008 which was first term of form four, drastically dropped. The drop could be associated with the higher level of knowledge skills expected at that class level such as synthesis and application that were quite challenging for girls with hearing impairments. It was also noted that out of eight participants who prepared to sit their final KCSE examination, four of them could only achieve a total mark below 100 i.e. 42, 46, 68 and 94 out of 700 marks in term one in 2008. The other four in class slightly scored above 100 marks but below 200 marks which was extremely on the lower level and they could not qualify for a pass in KCSE. Their performance revealed a major gap in academic achievement for girls with hearing impairments. From the records, none of the participants could qualify to join university despite their strong desire and will to do so.

Academic records for class two in St. Angela Mumias Secondary School during term one of 2007 revealed that out of the 10 students who appeared examinations, none scored above average mark of 650. That means that the students in the class performed far

below average. The highest mark scored was 566 and the lowest was 51. General performance for class two was low in the school. In class three, only 1 student scored above the average 500 marks that were 598 marks. The rest of the students scored less than the average mark. In third term of 2007 and first term 2008, out of the scores analyzed, no student got above the average mark. The closest mark to the average point was 366 marks and the lowest was 80 out of 500 marks. class three performance in the school was lower than class two. For instance, if transition to four could be pegged on pass-mark at class three then, no student would move to class four in St. Angela Secondary School.

Class four students in the same school were seven in number. The records indicated that only one student managed to score above average mark of 350 marks in first and third terms of 2007 and also in first term 2008. The rest of the students scored less than the average mark, with some scoring as little as 46 out of 700 marks. It is important to note that out of seven students in form four, five of them consistently scored a total average mark below one hundred yet they were the candidates for the school who prepared to sit for KCSE. According to the records of performance in the school, no candidate at form four could qualify for university entry. Form four candidates performed lowest in the three classes that participated in the study. A trend was established indicating that the higher the class levels, the worst the academic performance for girls with hearing impairments at secondary schools. A common trend was established from the findings, which showed that as the level of class increased, academic performance decreased.

It is important to note that those students who did not appear for examination at least three terms did not qualify for analysis and so they were not included. There were seven students in total who did not qualify

for their grades to be analyzed due to the cited reason. However, a common trend that was established from the findings was that as the level of class increased, academic performance decreased.

Lin, Kaplan and Risser, (1992) found reciprocal relationship between academic achievement and self-esteem among students from grades 7-12. They reported that students who scored high on general self-esteem achieved high grades and high grades in turn were associated with high levels of general self-esteem. They concluded that high self-esteem motivated one to set higher goals in academic undertakings. Despite high ratings on self-esteem, girls with hearing impairments in this study scored very poorly in academics. The girls demonstrated that high self-esteem neither leads to high academic achievement nor low academic achievement can lead to low self-esteem. However, the findings of the study revealed a moderately positive correlation between academic achievement and self-esteem.

Osborne (1995) observes that everyone's self-esteem was influenced by a number of factors. Parents, teachers, co-workers, friends, fellow classmates, and the environment were constantly influencing self-esteem. He noted that self-esteem is the product of two internal assessments or judgments, that is, the global judgment and one's self-worth. Osborne (1995) posits that key to self-esteem is the amount of discrepancy between what a person desires and what that person believes he/she has achieved. The findings of my study support Osborne (1995) who found that self-esteem is a product of internal assessment or judgment.

Hypothesis Testing

The self-esteem scores that were obtained from the girls' evaluation and their academic scores were correlated using the Pearson's Product Moment Correlation. The results obtained are presented in (Table 2).

Table 2: Pearson's Product Moment Correlation for Self-esteem Scores and Academic Scores

Overall performance on Rosenberg Self-esteem scale	Pearson Correlation	.38	1.000
	Sig. (1-tailed)	.401	
	N	46	46.000

Correlation coefficient, $r = .38$

As shown in table 2 above, the Pearson's correlation revealed the existence of a moderate correlation ($r = 0.38$) between academic performance and self-esteem for girls with hearing impairments. The significance level given of .401 was more than the set value of $p = .05$ indicating that the null hypothesis is retained. That meant that although the correlation was positive ($r = .38$) at a significant level of $\alpha = .05$, the relationship was not statistically significant at that level. The finding made the null hypothesis to be retained, and led to the conclusion that there was no significant relationship between self-esteem level and academic

achievement of girls with hearing impairments in secondary schools in Kenya.

Finally, an attempt was made to assist in the interpretation of the results obtained from the test of hypothesis. The fact that the statistical results revealed no significant difference between self-esteem and academic performance meant that explanations of performance reside beyond mere self-esteem. A point that became evident through a close examination of class and examination records of consideration is the possibilities for teachers to strengthen peer/group support learning among students themselves. It was

noted that one girl in class two scored good grades (Student No. 7 in Class Two at Reverend Muhoro Secondary School) and one in Class three (Student No. 1 in Class Three in the same school) also managed to score above average grades. The two students could be used for peer tutoring and they would serve as models for others to emulate.

The other explanation of these findings of is that principals of secondary schools for girls with hearing impairments took responsibilities to offer quality education and provided care and security to girls under their jurisdiction. The schools that tended to post high scored were those whose principals created close touch with the community, especially the parents of girls with hearing impairments. This made the girls with HI actively participate in various activities with their un-challenged counterparts

Girls with hearing impairments demonstrated that they had no threats when it came to the way they should socialize with other peers as well as with their own teachers. In few cases where peer socialization was encouraged, good academic performance was evident.

The interviews indicated that due to communication difficulties, persons with hearing impairments face challenges ranging from long periods of time spent on perceiving concepts to a lot of repetitions in classes needed for them to assimilate the concepts taught at that level before they transit to the next class. It was noted that the curriculum was rigid and the time schedules did not give girls with HI more time for syllabus coverage. This was also partly due to lack of interconnectivity of skills for learners with HI.

The principals and teachers contended that the current curriculum for secondary school is quite wide and rigid; it is examination oriented and has fixed time frame for completion of the set syllabi, hence negatively impacting on academic performance of students with HI. The teachers argued that girls with hearing impairments have potentials in certain areas other than academic engagements

On formal school assessment, a duty that is carried out by Kenya National Examinations Council, the teachers noted that the mode of student evaluation, especially among those with HI was not relevant to the learners. The teachers specifically noted that the current mode of assessment that did not take into consideration the plight of the students with HI by employing use of sign language had added disadvantage to their performance

4. CONCLUSIONS AND RECOMMENDATIONS

The major thrust of this study was to examine the relationship between self-esteem and academic performance of students with HI in secondary schools in selected schools for the deaf in Kenya. It was evident that girls with hearing impairments rated themselves positively on self-esteem. They expressed concern that

they could do everything as well as other people. From these findings, it is recommended that:

1. It is important to think of possibilities such as making education for them to look achievable and admirable, something they should strive to achieve and not stressful that they would try to avoid.

2. Teachers should make deliberate use of positive reinforcement that will encourage girls' participation and promote their esteem towards academic performance. They should ensure that they put in place all necessary learning and teaching devices that would support each girl to receive information in the simplest and easiest way without much difficulties.

3. Each girl's individual differences should be addressed and their strengths utilized to the maximum in order to help them overcome their weaknesses. They should be given opportunities to demonstrate creativity and imagination into activities and courses of their interest like Home Economics e.g. grooming, beauty therapy and the like. The fact that the statistical results revealed no significant difference between self-esteem and academic performance meant that explanations of performance reside beyond mere self-esteem. The other plausible explanation of these findings is that principals of secondary schools for girls with hearing impairments took responsibilities to offer quality education and provided care and security to girls under their jurisdiction. The schools that tended to post high scored were those whose principals created close touch with the community, especially the parents of girls with hearing impairments. This made the girls with HI actively participate in various activities with their un-challenged counterparts.

4. The study recommends for active collaborations with parents, teachers, students and other interested partners in initiating constructive projects that will actively engage girls' participation and bring change in attitude towards their education outcomes. Projects in beauty therapy and good grooming (in Home Economics) and modeling and drama (in Creative and Performing Arts) should be initiated to promote potentials and create exposure to the outside world.

It was also evident that good academic performance may not be admirable to girls with hearing impairments which creates a great task for educators to worry about.

5. It is therefore recommended that educators/teachers, counselors, parents, hearing peers and other stakeholders to encourage girls with hearing impairments and give moral support so that they work hard to improve on academic work at school on the understanding that education is key to upward mobility and job security particularly in courses like Home Economics.

Girls with hearing impairments demonstrated that they had no threats when it came to the way they should socialize with other peers as well as with their own teachers. In few cases where peer socialization was encouraged, good academic performance was evident.

6. It is important for teachers to promote dialogue and interactive activities within schools as well as inter-school activities that would allow for more socialization. Collaboration with the wider society for purposes of learning from one another, exchanging ideas and sharing diverse experiences mostly in local community activities is an example. In that way, girls with hearing impairments will be understood for who they are and what abilities they possess rather than being perceived differently. The interviews indicated that due to communication difficulties, persons with hearing impairments face challenges ranging from long periods of time spent on perceiving concepts to a lot of repetitions in classes needed for them to assimilate the concepts taught at that level before they transit to the next class. It was noted that the curriculum was rigid and the time schedules did not give girls with HI more time for syllabus coverage. This was also partly due to lack of interconnectivity of skills for learners with HI.

7. It is recommended that the government should make curriculum flexible in terms of time-frame to give girls with hearing impairments more time for syllabus coverage since they require proficiency in one skill area before transition to the next higher level. It was evident from the findings that as the level of classes increased, the academic performance decreased. For girls with hearing impairments to polish up before proceeding to a higher level, a competency of skills in a curriculum is highly recommended and not just mere transition from one class level to another on yearly basis for the sake of it.

8. The study recommends that the government and particularly the curriculum developers that is, Kenya Institute of Education (KIE) reconsiders curricula adaptation to suit the potentials and abilities of girls with hearing impairments. Provision for a diversified curriculum that gives alternative choices should be available at all times in schools in order to motivate low achievers in academics who may prove to be higher achievers in other areas of proficiency.

On formal school assessment, a duty that is carried out by Kenya National Examinations Council, the teachers noted that the mode of student evaluation, especially among those with HI was not relevant to the learners. The teachers specifically noted that the current mode of assessment that did not take into consideration the plight of the students with HI by employing / use of sign language had an added disadvantage to their performance.

9. It is recommended that the council should rethink practical assessment or evaluation whereby participants

with hearing impairments could be exposed to strategies like observations and demonstrations on concrete aspects as opposed to applications and synthesis on theory or abstract work which may require too much reading and cramming notes for purposes of passing examinations. Evaluation on practical skills learnt and a variety of choices on what to embark on would support girls in decision making and forming opinions. An alternative strategy would be the use of Kenya Sign Language for examinations on subject content or rather, sign language interpreters for all required examinations.

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