An Assessment of Public Primary School Teachers’ Attitude towards Inclusion of Children with Hearing Impairment in Central Region of Kenya

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Abstract
Effective inclusion of children with hearing impairment in regular public primary schools requires that teachers should be receptive to the principles and demands of inclusion. This study was to investigate attitudes of public primary school teachers from central region of Kenya. This study employed a descriptive survey research design. The study employed a multistage sampling method to select 400 public primary school teachers from four counties. The counties selected were Kiambu, Kirinyaga, Muranga and Nyandarua. From each of these counties, ten schools were randomly sampled from each County and then ten teachers were randomly selected in each school in the 40 schools in the four Counties making a total of 400 public primary school teachers. Descriptive and inferential statistical tools were used to analyze the collected data with the aid of Statistical Package for Social Sciences computer programme. The mean, frequencies and percentages were used to describe the variable characteristics while t- test was used to establish the differences in means between variables. The results indicated that since the t value (-3.442, which indicates that the second group was higher than the first group) resulted in a Sig. (p) value (0.00) that was less than our alpha of .05 indicating that males and females differed significantly on their attitudes toward inclusion of learners among teachers in regular primary schools. The study concludes that despite teachers’ positive attitude towards inclusion they are not ready to adopt this change without prior training on how to teach the hearing impaired. Male teachers were more positive to teaching learners with hearing impairment than their female counterparts. The study recommends Ministry of Education need to restructure schools into communities that support learners with special needs. The teachers need to be flexible and be ready to teach learners in diversified placements.

Key words: Public Primary School Teachers’; Attitude, Inclusion, Hearing Impairment
1.1 Introduction

Education of learners with hearing impairment in regular primary schools has its origin in international documents, which support inclusion of all learners in regular schools. Such documents include: 1948- United Nations Human Rights to Education, 1989- United Nations Convention on the Rights of the Child, 1993-UN Standard Rules on Equalization of Opportunities for Persons with Disabilities (UNESCO, 2006). Inclusion of children with disabilities in mainstream classrooms has become the focus of extensive research in education. It has both academic and social benefits for all students, such as providing opportunities for communication and social interaction. As Jenkins, Pious & Jewell, (1990) put it, inclusion implies that the regular classroom should change to accommodate all different learners and in the process, desirable services be offered to all children within the regular classroom.

In Singapore, MOEST (2010) highlighted a case study where learners with hearing impairment were educated in regular primary school together with hearing learners. The teachers treated the learners with hearing impairment equally as others, both hearing learners and learners with hearing impairment were educated together at the same place, and sat for the same tests and exams as the regular pupils, including Primary School Leaving Examination (PSLE), played together, shared same desks and ate together during meal time. From such integration the hearing impaired learner was provided with opportunities to interact purposefully with their mainstream peers, foster better social integration and enhanced the learning experiences for children from both types of schools, individual conversation, academic remediation or other forms of support such as extra support lessons for hearing impaired learners. All these learning strategies were aimed at making the hearing impaired learners cope better in regular primary school (MOEST, 2010).

Adoyo (2007), most children with hearing impairment in Kenya join pre-primary classes (Nursery and Infant Classes) at the age of 5 years for two years. A small percentage is identified late and therefore starts school late. In the third year, they move to class (grade) one, which runs up to grade eight at which they sit for a national examination, Kenya Certificate for Primary Education (KCPE), together with their hearing counterparts in regular schools. The only rebate offered is an extra 30 minutes during the examination period. There were few academic secondary schools for the deaf who qualified to proceed for secondary education. The universities in Kenya have no interpreting services for the deaf. The few deaf graduates in Kenya studied overseas e.g. in America.

Education of learners with hearing impairment in regular primary schools in Kenya has faced a number of challenges since inception of Free Primary Education (FPE). Information from Kakamega County (2010) indicated that the number of learners with hearing impairment in regular primary schools was on the increase since inception of Free Primary Education (FPE). The number of learners with hearing impairment was on the increase since inception of Free Primary Education (FPE). For example, data for the last three years indicated there were 133 learners with hearing impairment in 2008, 2009 (161), and 2010 (206). There were 121 learners with hearing impairment
in regular primary schools in class three and four and these schools with hearing impairment learners faced a number of problems both in class and in co-curricular activities.

In central province, only two schools for hearing impaired are practicing locational integration to date. These are Kambui and Kerugoya. They have provided equal opportunities to all learners to experience normal mainstream activities, while making deliberate and appropriate measures to ensure quality Education for All (EFA). However, as much as this system has provided some favourable factors to the growth of education to learners with hearing impairment, it has turned out to be inappropriate since the child is seen as a problem who must adapt to fit in the education system. The focus is therefore on attendance rates and hence need for alternative provision. The main challenge was negative attitude from hearing learners and teachers, which resulted to discrimination, and exclusion from activities being done by hearing learners. This therefore called for an assessment of public primary school teachers’ attitude towards inclusion of children with hearing impairment in Central region of Kenya

1.2 Materials and Methods
This study employed a descriptive survey research design with the priority of being given to a range of dimensions of the research process and importance attached to expressing causal connections between variable and generalization to the larger population. The study employed a multistage sampling method to select the study subjects. First four counties were purposively selected from the province and then from each school ten teachers were randomly selected. The counties selected were Kiambu, Kirinyaga, Muranga and Nyandarua. From each of these counties, ten schools were randomly sampled from each County and then ten teachers were randomly selected in each school in the 40 schools in the four Counties making a total of 400 public primary school teachers. Descriptive and inferential statistical tools were used to analyze the collected data with the aid of Statistical Package for Social Sciences computer programme. The mean, frequencies and percentages were used to describe the variable characteristics while t-test was used to establish the differences in means between variables.

1.3 Results and Discussion
1.3.1 Profile of the respondents
The survey engaged 400 public primary school teachers randomly selected from forty schools all in central province. There were 161 (40.2%) male and 239 (59.8%) female teachers in the study. Out of the forty schools sampled only 14.2% had a special unit for children with hearing impairment. Majority of the teachers (191, 47.8%) had a teaching experience of over sixteen years. This was followed by 125 teachers (31.2%) having between 11 and 15 years of teaching experience. Most of the teachers (n=352, 88.0%) had not received any special needs education training. Only 48 (12.0%) of them had received such training.
1.3.1 Attitude of Teachers’ toward Inclusion of Hearing Impaired Learners in Regular Schools

The main objective of the survey was to establish the attitude of primary school teachers toward inclusion of hearing impaired learners in regular schools. The teachers who participated in the study were presented with ten items that measured their attitudes toward inclusion of learners with hearing impairments in regular schools. Each of the items was rated on a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). The highest score that one could get on this scale was fifty (50), while the lowest was ten (10). High scores indicated highly positive attitudes while low scores indicated highly negative attitudes. A score of thirty (the mid-point of the scale) indicated that one was undecided (or neutral).

Based on the teachers’ responses to the ten items, an overall attitude score was computed for all the teachers - in order to measure their general attitude, and the results tabulated below were obtained.

![Figure 1: Teachers’ attitude toward inclusion](image.png)

As shown in Figure 1, there were 90 teachers (22.5%) who scored below 30 (10-29). This group had negative attitudes toward the inclusion of hearing impaired pupils in regular schools. Twelve of the teachers (3.0%) were neutral (had a score of 30). The rest of the teachers (n=298, 74.5%) had scores above 30 (31-50). This group had positive attitudes toward inclusion of hearing impaired pupils in regular schools.
The figure below is a histogram showing the teachers scores, the mean and the standard deviation.

![Histogram for Teachers' Attitude Scores](image)

### Figure 2: Histogram for Teachers’ Attitude Scores

As shown in the histogram, the scores for the majority of the teachers were above thirty indicating positive attitudes. The mean score for the teachers’ attitudes was 35.9 (above the mid-point) and the attitudes distribution was negatively skewed (meaning majority of the teachers had high scores). From this therefore, it can be concluded that majority of the teachers had positive attitudes toward the inclusion of hearing impaired pupils in regular schools.

### 1.3.3 Teachers’ Attitudes toward Inclusion of children with hearing impairment across Gender

**Hypothesis 1**

*There is no significant gender difference in attitudes toward inclusion of learners among teachers in regular primary schools.*

To test this hypothesis, t-test was run at 0.05 level of significance. This was to find out whether there were significant mean differences between male and female teachers in their attitudes toward inclusion of hearing impaired children in regular schools. As shown in Table 1, the mean score for attitude for men was 37.124 indicating that they agreed with the inclusion of hearing impaired learners in regular schools were neutral (not against or for). The mean score for women teachers was 35.134.

### Table 1: Teachers Attitudes towards inclusion of hearing impaired children in regular schools across Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>161</td>
<td>37.124</td>
<td>8.867</td>
</tr>
<tr>
<td>Female</td>
<td>239</td>
<td>35.134</td>
<td>9.184</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>35.935</td>
<td>9.100</td>
</tr>
</tbody>
</table>
According to the results presented in Table 1, male teachers had a higher attitude mean score than that for female teachers. This means, therefore, that male teachers were more positive than female teachers as far as inclusion for hearing impaired learners in regular primary schools was concerned. The standard deviation indicates the variation from the mean. The standard deviation of male teachers was 8.867 less than that of female teachers (9.184) indicating that their scores were less varied as compared to those of women. However, the average standard deviation (9.100) indicated that the teachers’ scores varied from the mean score.

In order to establish whether there was a significance gender difference in attitudes toward inclusion of learners among teachers in regular primary schools a *t*-test was run. The results (Table 2) indicate that since the *t* value (-3.442, which indicates that the second group was higher than the first group) resulted in a Sig. (*p*) value (0.00) that was less than our alpha of .05 (*p* < .05, which puts the obtained *t* in the tail). Therefore, we reject the null hypothesis in support of the alternative hypothesis, and conclude that males and females differed significantly on their attitudes toward inclusion of learners among teachers in regular primary schools.

These findings correspond to Nambira (1994) study in Tanzania where female teachers had negative attitudes and even not willing to further their education in special needs education. However, Baron-Cohen (2003) findings contradicts these results as his study revealed that female teachers working in regular schools showed a positive attitude towards inclusive education for children with hearing impairment, when compared to male teachers. This could be due to better emotional intelligence of women, with better adaptation ability and empathy. Several studies support the view that there is no correlation between a teacher’s gender and the attitude towards inclusive education (Cornoldi et al, 1998; Avramidis et al, 2000; Kuester, 2000; Van Reusen et al, 2001). Harvey (1985), in a similar study, concluded that gender was not a significant factor in determining teachers’ attitudes towards inclusive education.

### Table 2: T-test results on Teachers Attitudes inclusion of hearing impaired children

<table>
<thead>
<tr>
<th></th>
<th>t-test for Equality...</th>
<th>95% Confidence Interval of the Difference</th>
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<tbody>
<tr>
<td></td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances</td>
<td>-3.532</td>
<td>398</td>
</tr>
<tr>
<td>Not Equal variances</td>
<td>-3.442</td>
<td>109.44</td>
</tr>
</tbody>
</table>
1.3.4 Academic Performance
Ross & Madison, (1982) noted that there was superior performance noted for the hearing impaired learners in the regular schools. This according to Lynas (1986) is the most ideal placement for learners with hearing impairment. The findings of the present study are also consistent with the above findings, 52% of the respondents argued that if learners with hearing impairment are taught together with those without impairment they are likely going to perform better. While respondents (67.5%) felt that interactions with hearing learners would help hearing impaired learners improve their academic performance and in the end he/she may develop confidence in his/her own academic ability. This was very positive attribute to inclusion.

Social Aspects
Responses indicate that including a deaf child in a regular school will increase his/her circle of friends. The reason given is that there is no physical indicator of hearing impairment and those learners look healthy and smart like all other learners without disabilities. Such learners are well adjusted socially according to 64% of respondents and this is an indication that inclusive education will automatically make hearing impaired learners happy (Mwamba & Kalabula 2000). It also means that inclusive education will not increase social rejection by peers as indicated by 24% of the respondent.

Further 22.75% of the respondents indicated that inclusion would not negatively affect the social development of the other learners because it will allow for full classroom interaction. The best conclusion that can be arrived at from the above responses is that the majority of the teachers felt that deaf learners are socially accepted in regular classes. This social acceptance has positive implications on the social, psychological and intellectual development of the child. Pupils’ most fundamental need is to be known and accepted as valued members (Hall, 1992). If such pupils are not accepted the end result may be that they will keep to themselves.

In a study carried out in Zimbabwe, (Mushoriwa 2000) the results showed that blind learners were not accepted in inclusive settings. Teachers felt that such learners would be a bother in terms of seeking assistance from the others while walking. It is for this reason that Mushoriwa (2000) said that while attempting to include learners with Special Needs in regular classes, type of disability need to be considered. Special education to date has merely reproduced itself in a mainstream setting. It has in other words colonized rather than transform the mainstream. Social acceptance therefore is dictated by the disability itself as stipulated by comparing the results of social acceptability in this study with that of Mushoriwa (2000).

Thus the heterogeneity of an inclusive class with regard to disability and its degree, talents, interests, preferences, knowledge and experiences make it difficult to define as a group according to Savolainen (2000), while they may be physically in one class, they may remain separate as a result of some of the above attributes. The disabled child is seen as different and difficult (Booth and Ainscow, 1998) and this sets him/her apart. Should the child sense this rejection, it can cripple
his/her whole personality and such crippling is a more serious menace than the physical or sensory
disability itself.

1.4 Conclusion and Recommendations
Responses also revealed that despite teachers’ positive attitude towards inclusion they are not ready
to adopt this change without prior training on how to teach the hearing impaired. The teachers were
very clear that they cannot communicate with hearing impaired learners; they do not understand
psychology of deafness and would not therefore teach such learners effectively. It was also palpable
that male teachers were more positive to teaching learners with hearing impairment than their
female counterparts, it is culturally right to imagine that female teachers would be more positive in
this circumstance since they are expected to be more concerned and responsive to issues concerning
children. The study recommends that Kenyans need to restructure schools into communities that
support learners with special needs. Such would be good schools and good classrooms that help to
give opportunity to learners to improve their self-esteem and not fast students with specific
challenges. To achieve this teacher need to be competent inclusive teachers. Attitudes of regular
primary teachers should be addressed through in-service courses and public education because they
are important variables in the initiation of Inclusive Education for learners with hearing impairment.

Learners need a caring and stimulating learning environment to understand what is being taught and
to interact effectively with their peers and teachers. Teachers should consider making adjustments
in methods, materials, settings and schedules, to accommodate students rather than trying to make
learners adjust to existing practices. Such adjustments will benefit education quality for all learners
not only those with a disability.

Teachers in public primary schools need to be flexible and be ready to teach learners in diversified
placements and meet their individual needs, to be consistent and patient, and to respect learners’
individual learning styles. They also need to accept that learners learn at different rates, and in
different ways, and so plan lessons with diversity and difference in mind; Plan activities according
to the learning taking place, rather than according to a fixed interpretation of the curriculum;
cooperate with families and community members to ensure that girls and boys are in school and that
their learning is optimized; Respond flexibly and creatively both to the individual needs of
particular learners and to the needs of all learners in the classroom; Be aware that a proportion of
learners in all classes will experience some learning difficulties.
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