



## **Behavioral Components Influencing Social Development of Learners with Hearing Impairments in Public Primary Schools in Rongo Sub-County, Kenya**

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### **Abstract**

*In the past, people have had false and negative beliefs about disability, which has led to implications to the lives of learners with Hearing Impairment (HI). Some studies suggest that learners with HI experience isolation and do not have many friends that influence their self-confidence and social interaction capabilities. Consequently, learners with HI can holistically develop when they are taught how to socialize and equipped with necessary skills within the school environment in order to easily adapt to their daily living activities. However, enough has not been done to ensure that there is rapid socialization of learners with HI. Despite teachers attending many in-service courses, workshops and seminars organized by educational experts to improve and help unravel factors that could necessitate social development of learners with HI, such learners in public primary schools in Rongo Sub-County have not witnessed much remarkable improvements in their sociability. Hence, the purpose of this study was to investigate behavioral components influencing social development of learners with HI in public primary schools in Rongo Sub-County, Kenya. The objective of this study was to identify behavioral components influencing social development of learners with HI in the public primary schools in Rongo Sub-County, Kenya. The study was guided by Social Development Theory by Lev Vygotsky. The study utilized descriptive survey research design. The study population comprised; 50 public primary schools with special units, 50 Head Teachers (HTs), 50 Teachers of Special Needs Education (TSNE) and 63 learners with HI. Purposive sampling was used to identify 15 schools, 15 Head Teachers, 15 TSNE while all the 63 learners with HI were identified through census sampling. Quantitative data was collected using questionnaires and analyzed descriptively using SPSS version 29 into frequencies, percentages, means and Standard Deviations (SDs) and further analyzed inferentially into Pearson correlations. Qualitative data was collected using interview and observation checklist. Data from interview was analyzed thematically while data from observation checklist was analyzed descriptively into frequencies, percentages, means and SDs. Study findings were presented in the form of tables of descriptive and inferential statistics. Quantitative findings established that behavioral components had positive influence on social development  $r = 0.642$ ;  $p < 0.05$ . The finding was confirmed by qualitative results. Educators should use the information to discourage bullying of learners with HI and enforce social integration mechanisms through social events like sports. Teachers should advocate for peer support among learners with HI and able learners in public primary schools. The Ministry of Education (MoE), Teachers Service Commission (TSC) and Kenya Institute of Curriculum Development (KICD) should enforce inclusive and SNE to all teachers in primary schools.*

**Keywords:** Behavioral Components, Social Development, Learners, Hearing Impairment (HI), Public primary schools

### **Introduction**

Educational institutions in general, particularly elementary, and primary schools provide an essential area for children to develop and enhance their skills and abilities. Early life has a key influence in developing children's social abilities. The social experience in schools has a lasting effect on students' social lives. According to Wonkam, et al. (2021) children with general disability and particularly learners with Hearing Impairment (HI) have several challenges in school life. The development of the pupils' social skills, peer interaction and academic



achievement is significantly influenced by Hearing Impairment (Owuor, Awuori & Otieno, 2020). The school system has a major role in dealing with the difficulties of students with HI because such children need particular attention and care. Therefore, schools play an important role in building the social skills of children with HI.

Albarracín, Farkhad and Samayoa (2024) on the other hand mentioned that, “a few behavioral components advantage individuals and society at large; man or woman, learners, and social-structural determinants of behavior and the efficacy of behavioral change interventions that target them. Interventions designed to exchange social-structural determinants may be ordered by way of increasing impact as legal and administrative sanctions; programs that increase institutional trustworthiness; interventions to alternate injunctive norms; video display units and reminders; descriptive norm interventions; material incentives; social guide provision; and policies that increase access to a particular behavior.”

The establishment of the Special Needs Education (SNE) units in all public primary schools in Kenya has helped integrate learners with HI into the School set up. None the less, teaching methods drawback inexperienced learners with HI in public primary schools as they are expected to suit into the everyday curriculum which barely withstanding their unique needs. Therefore, the purpose of the study was to investigate the behavioral components influencing social development of learners with HI in public primary schools in Rongo Sub-County, Migori County, Kenya.

### Methodology

“Research design is a plan of how the researcher carries out the investigations,” Tellah, (2015). The present study employed a descriptive survey research design. “Descriptive survey research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research design is description of the state of affairs as it exists at present. It attempts to describe what is in a social system such as the school. It improves direct observation where required behavior is observed in a particular setting, full time participants in the activities being observed and interview methods, which involve face-to-face interaction between the researcher and the subjects as its methods of inquiry,” (Abagi, 2018).

The intended target population for this research was 50 public primary schools with special units of 63 Hearing Impairment (HI) learners, 50 Teachers of Special Needs Education (TSNE) in charge of the special units and 50 Head Teachers (HTs) totaling to a population of 213 in Rongo Sub-County, Kenya. Teachers were targeted by the study because they were directly involved in teaching of learners with HI. The school HTs were targeted because they are the administrators and managers who supervise and coordinate activities within the school. Therefore, the HTs have the task to ensure that all the special units are well equipped with the necessary resources that would secure the smooth learning of pupils with HI.

“Sampling is the process of selecting a number of respondents for a study in such a way that the selected respondents represent the large group from which they are selected,” (Mugenda & Mugenda, 2003). Purposive sampling was used to sample schools, TSNE and HTs while survey was used to sample learners with HI.

In line with Mugenda and Mugenda (2003), a sample size of 30 percent of the respondents is a good representation of the target population. For this study, the researcher selected 30 percent of public primary schools with special units in Rongo Sub-County, 30% of HTs, 30% of TSNE and all the learners with HI in the selected schools were sampled. Table 1 shows the number of public primary schools with special units in Rongo Sub-County and the selected sample size of the schools.

**Table 1: Population and Sample Size**

Items	Population	Sample Size	Percentage Sampled
Public Primary Schools (special Units)	50	15	30%
HTs	50	15	30%
TSNE	50	15	30%
Learners with HI	63	63	100%
<b>Total</b>	<b>213</b>	<b>108</b>	<b>100%</b>

Table 1 indicates that the total population was 213 while sample size was 108 participants. Percentage samples are also highlighted.

Questionnaires for TSNE were utilized to collect quantitative data, interview schedules for HTs were used to collect qualitative data whereas observation check list for learners with HI was also used to collect quantitative data.

Quantitative data obtained from TSNE were assigned numerical values to enable the computation of relevant descriptive variables then coded into a statistical package for social sciences (SPSS version 27). Data from closed ended items were analyzed using descriptive statistics into Frequencies, percentages, Means and SDs and further analyzed inferentially into Pearson Correlations. The results were presented in form of tables. “Qualitative data generated from the interview schedule was analyzed thematically using narratives,” (Braun and Clarke, 2006).

### Results and Discussions

Respondents were probed on behavioral Components Encountered by learners with HI and asked to rate the behavioral components on a scale of 1 to 5; where 1. Not Observed (NO), 2. Rarely Observed (RO), 3. Sometimes Observed (SO), 4. Frequently Observed (FO) and 5. Consistently Observed (CO). The data was analysed descriptively into frequencies, percentages, means and standard deviations. Table 2 shows the results from respondents.

**Table 2: Behavioral Components Influencing Social Development of Learners with HI in Public Primary Schools**

Behavioral Components Influencing Social Development of Learners with HI	NO (1) SD	RO (2)	SO (3)	FO (4)	CO (5)	MEAN	SD
HI learners have difficulties in communicating with peers	0(0%)	3(21.4%)	2(14.3%)	6(42.9%)	3(21.4%)	3.64	1.234
There is lack of understanding and empathy of learners with HI by their peers	1(7.2%)	1(7.2%)	9(64.3%)	2(14.3%)	1(7.1%)	3.07	1.421
Learners with HI are either teased or bullied by their peers	1(7.1%)	5(35.7%)	1(7.1%)	2(14.3%)	5(35.7)	3.36	1.219
The learners with HI are often isolated and lonely while at school	4(28.6%)	4(28.6%)	2(14.3%)	3(21.4%)	1(7.1%)	2.50	1.196
Learners with HI are understood and supported by their peers	1(7.1%)	2(14.3%)	2(14.3%)	6(42.9%)	3(21.4%)	3.57	1.381
Learners with HI are understood and supported by their teachers	0(0%)	0(0%)	2(14.3%)	3(21.4%)	9(64.3%)	4.50	1.277

**Key: 1. Not Observed (NO), 2. Rarely Observed (RO), 3. Sometimes Observed (SO), 4. Frequently Observed (FO) and 5. Consistently Observed (CO).**

In Table 2 a few of the respondents (21.4%) consistently observed that “HI learners have difficulties in communicating with peers.” Some respondents (42.9%) frequently observed the same. Majority of the respondents cumulatively (64.3%) consistently and frequently observed that, learners with HI have difficulties in communicating with peers. However, (21.4%) of the respondents rarely observed that, learners with HI have difficulties in communicating with peers. Overall, the mean rating is 3.64 (out of a maximum possible of 5) and a SD of 1.234. The quantitative findings support that of Jethava, Kadish and Kakonge (2022) who indicated that, “learners with HI encounter social communication difficulties across their lifespan.” From quantitative results, Learners with HI find it difficult to communicate with their peers. Therefore, teachers should device appropriate strategies to mitigate this.

This was shown by responses from HT6 saying:

Learners with HI have difficulties in communicating with peers since they lack self-confidence, they experience shyness, and they suffer from insufficient understanding of English vocabulary, fluency, and un-readiness to convey messages. Additionally, such learners may face obstacles related to technology mastery, an unsupportive environment, and lack of English-voicing with their peers.

HT2 noted; “There are also other factors that can contribute to problems with communication. For example, poor self-esteem or a lack of confidence can sometimes impact social abilities in negative ways. In such cases, talking



to a mental health professional may be beneficial.” The views of HT6 and HT2 imply that, learners with HI experience immense difficulties in communicating not only with their peers but also with others. Pollak, et al. (2024) equally confirmed that, “learners with HI experience cultural, educational and organizational barriers when communication.”

In table 2, the study found that a majority (64.3%) of the sometimes observed that, “There is lack of understanding and empathy of learners with HI by their peers.” Another section of respondents (14.3%) frequently observed the same. Majority of the respondents cumulatively (78.6%) sometimes and frequently observed that, “there is lack of understanding and empathy of learners with HI by their peers.” Overall, the mean rating is 3.07 (out of a maximum possible of 5) and a SD of 1.421. The findings support that of Marco, et al. (2023) who found that, “cognitive empathy contribute to affective empathy, which is further related to increased levels of study engagement, and decreased levels of cynicism and sense of inadequacy assignments are part and parcel of performance.” Qualitative results also reveal that there is there is lack of understanding and empathy of learners with HI by their peers as was expressed by HT1: “Learners with HI normally yearn for empathy from everybody not to mention their peers. Since their communication is characterized by persistent difficulties with the use of non-verbal language, empathy is thus swept away.” From the sentiments of HT1, it is true to confirm that as learners with HI try to communicate with their peers, they improve their chances of enjoying empathy. All the stakeholders should therefore try to encourage learners with HI to be compassionate and empathetic with each other. The findings are in agreement with that of Wu (2023) who discovered that, “various measures of peer relationships and empathy contributes to challenges in reaching definitive conclusions. Hence, the association between peer relationships and empathy in children and adolescents remains unclear.”

Table 2 present a number of respondents (35.7%) who consistently observed that “Learners with HI are either teased or bullied by their peers.” Another section of them (14.3%) frequently observed the same. Majority of the respondents cumulatively (50.0%) consistently and frequently observed that, Learners with HI are either teased or bullied by their peers. However, some respondents (35.7%) rarely observed the same. Overall, the mean rating 3.36 (out of a maximum possible of 5) and a SD of 1.219. The findings agree with that of, Wang, Jiao, and Chen (2024) who both deduced that, “school bullying negatively impacts peer cooperation.” This was further supported by Abdullah (2024) that, “bullied children who grow up to be adults have anxiety and despair that affect their school engagement. Students with HI were unable to get along with typically abled students due to bullying.” Therefore, it is of uttermost importance for teachers to prevent bullying of students with HI in regular schools.

In analyzing qualitative data from interviews, HTs equally agreed with the statement that, learners with HI are either teased or bullied by their peers. This was echoed by HT4 that:

Typically, learners with HI suffer a lot due to bullying by their peers. You may need to provide individual interventions to help deaf pupils escape bullying. Deaf pupils may find it more challenging to pick up on social cues, both verbal and non-verbal. For example, they may not recognize a sarcastic comment or tone of voice but emotionally they do. Therefore, teachers should literarily protect them from such.

The discussions of HT4 indicate that, for learners with HI not to feel bullied, interventions like; speakers facing them when talking, talking slowly and clearly, and avoiding yelling are recommended. The statements support the findings of Sabramani, et al. (2021) that, “timely bullying preventions and interventions are essential, especially in terms of enhancing HI learners’ mental health capacity, which substantially influences the reduction in the prevalence rates of bullying involvement among students”

From Table 2, only (35.7%) of the respondents sometimes observed that “learners with HI are often isolated and lonely while at school.” Another (21.4%) frequently observed the same. Majority of the respondents cumulatively (57.1%) sometimes and frequently observed that, “learners with HI are often isolated and lonely while at school.” However, (28.6%) of respondents did not observe the same while another (28.6%) of the respondents rarely observed that. Overall, the mean rating is 2.50 (out of a maximum possible of 5) and a SD of 1.196. The findings support Almeida, et al. (2021) who studied social isolation and its impact on children and adolescents’ development and established a strong association between social isolation and anxiety and depression in children and adolescents. However, when the ability of learners with HI to hear and freely express your thoughts to the rest of the world is not consistently possible, this can put them into a position of isolation. Therefore, stakeholders should improve social integration included facilitating interactions with the Hearing Impaired and educate the Non-Hearing Impaired to normalize the disability.

In one of the interviews with the HTs, HT5 discussed that:



Social isolation is lack of relationships with others and little to no social support or contact. It is associated with risk even if people don't feel lonely. Loneliness is feeling alone or disconnected from others. It is feeling like you do not have meaningful or close relationships or a sense of belonging. Feeling of loneliness can cause withdrawal from socialization process.

The Views of HT5 imply that, lack of proper relationship with others can lead to social isolation, loneliness and frustration, particularly among learners with HI. Similarly, findings support that of Shubham et al. (2020) asserted that, “hearing loss was related to loneliness and that children with hearing loss experienced more social isolation.” Ilkim, Tamr and Özder (2018) also discovered that, “isolation and loneliness of learners with HI negatively influences their social development.

In table 2, the study found that (21.4%) of the respondents constantly observed that, “Learners with HI are understood and supported by their peers.” Another (42.9%) frequently observed the same construct. Majority of the respondents cumulatively (64.3%) consistently and frequently observed that, “learners with HI are understood and supported by their peers.” However, (7.1%) of respondents did not observe that, learners with HI are understood and supported by their peers. Overall, the mean rating of the construct is 3.57 (out of a maximum possible of 5) and a SD of 1.381. The findings support that of Holzinger, et al. (2022), Ryan and King (2019) who all confirmed that, “in a suitable environment, both physical and cultural, the social skills of students with HI can improve primarily through increased understanding, support and social interaction with their peers.”

Results from interview excerpts equally confirmed the same as is in the sentiments of HT3 that:

Peer support is when learners with HI use their own experiences to help each other even in difficult situations. Peer support brings together learners with shared experiences to support each other, provide a space where they feel accepted and understood.

The views of HT3 imply that even in a difficult situations learners with HI strive to maintain a level of respect and consideration for one another. They are sensitive to what the other person might be feeling, show non-judgmental empathy and respond in a manner that is equal, genuine and personal. The findings support Wang', et al. (2021) who reported that peer support enhances social development. Ilhan (2018) on the other hand assessed the influence of peer support on social adjustment and established that, peer support influences social development among peers with HI.

In table 2, the study found that (64.3%) of the constantly observed that, “Learners with HI are understood and supported by their teachers.” Another (21.4%) frequently observed the same. Majority of the respondents cumulatively (85.7%) constantly and frequently observed that, learners with HI are understood and supported by their teachers. Overall, the mean rating of the construct is 4.50 (out of a maximum possible of 5) and a SD of 1.277. The quantitative contradict that of, Dong, et al. (2023) that, “neither family support nor teacher support had a significant effect on the mental health of learners with HI. In contrary, Halsall, et al. (2023) deduced that, “professional teacher support can facilitate personal development of learners with HI.” Therefore, stakeholders should encourage teacher support to learners with HI. The findings are confirmed by HT11 during the interview when he expressed: “Students who are deaf need to know what subject matter will be discussed in order to pick up words that help them follow the conversation. This is especially important to individuals who depend on oral communication. Speak slowly and clearly; but do not yell, exaggerate, or over pronounce.” The sentiments of HT11 show how important it is for the teacher to be sensitive to learners’ academic needs. Results by Wang', et al. (2021) equally deduced how teacher support to learners with HI influences their social development.

<b>Behavioral Components Influencing Social Development of Learners with HI</b>	<b>NO (1)</b>	<b>RO (2)</b>	<b>SO (3)</b>	<b>FO (4)</b>	<b>CO (5)</b>	<b>Mean</b>	<b>SD</b>
Communication difficulties	0(0%)	0(0%)	0(0%)	12(80%)	3(20%)	4.20	.491
Lack of understanding and empathy by peers	0(0%)	0(0%)	10(66.7%)	2(13.3%)	3(20%)	3.53	.987



Teasing and bullying	0(0%)	0(0%)	0(0%)	5(33.3%)	10(66.7%)	4.67	.894
Isolation and loneliness	0(0%)	0(0%)	5(33.3%)	5(33.3%)	5(33.3%)	4.00	.450
Understanding and support by peers	0(0%)	8(50%)	3(20%)	2(13.3%)	2(13.3%)	2.47	.738
Understanding and support by teachers	0(0%)	0(0%)	2(13.3%)	8(53.3%)	5(33.3%)	4.20	.788

**Table 3: Analysis of Observation Checklist Results on Behavioral Components**

**Key: 1. Not Observed (NO), 2. Rarely Observed (RO), 3. Sometimes Observed (SO), 4. Frequently Observed (FO) and 5. Consistently Observed (CO).**

Table 3 shows that Communication difficulties were frequently observed to be influencing social development of HI learners as represented by (80.0%). The researcher sometimes observed that lack of understanding and empathy by peers influence social development of learners with HI (66.7%), Teasing and bullying (66.7%) was constantly observed, the researcher constantly observed that isolation and loneliness influences social development of learners with HI (33.3%), understanding and support by peers was rare at (50%) and lastly the researcher frequently observed that understanding and support by teachers frequently influences social development of learners with HI (53.3%) with the mean ratings of 4.20, 3.53, 4.67, 4.00, 2.47 and 4.20 respectively. Therefore, there is enough statistical evidence to support that behavioral components encountered by learners with HI in public primary schools influence their social development.

#### **Overall Influence of Behavioral Components on Social Development of Learners with HI**

A two tailed Bivariate Pearson correlation analysis was conducted to establish whether a relationship exists between behavioral components and Social Development of learners with HI. The results are shown in the Table 4.

**Table 4: Overall Influence of Behavioral Components on Social Development of HI learners**

<b>Independent Variable</b>	<b>Inferential Statistical Test</b>	<b>Correlation with understanding and support by teachers</b>
Behavioural components	Pearson Correlation	.642**
	Set Sig. (2-tailed) ( $\alpha$ )	.05
	Observed P value	.000

\*\*Correlation is significant at the 0.05 level (2 tailed)

Source: Researcher's Analysis, 2024

The results in Table 4 indicate, a strong positive relationship of  $r = 0.642$ ;  $p < 0.05$  between behavioral components and social development of learners with HI. Since P value obtained was 0.0 which was  $< 0.05$ . Hence, it was concluded that there was statistically significant influence of behavioral components on social development of learners with HI in public primary schools.

#### **Conclusions and Recommendations**

It was concluded that behavioral components of learners with HI influence their social development. Learners with HI who use sign language find it difficult to communicate with their peers who do not have the disability. Learners with HI were unable to get along with able learners due to bullying, teasing, and isolation thus causing their loneliness. It was recommended that the findings should inform educators to prevent bullying of learners with HI in Public primary schools and enforce social integration mechanisms through social events like sports.

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