



TEACHERS CHALLENGES IN MODIFICATION OF EBD IN LEARNERS WITH HEARING IMPAIRMENT TO ACHIEVE ACADEMIC PERFORMANCE IN METROPOLITAN REGION IN KENYA

Elizabeth Nelima Simiyu¹ⁱ,

Beatrice A. Bunyasi²,

George W. Mathenge³

¹PhD Student,

School of Education and Lifelong Learning,
Kenyatta University,
Kenya

²Senior Lecturer,

School of Education and Lifelong Learning,
Kenyatta University,
Kenya

³Senior Lecturer,

School of Education and Lifelong Learning,
Kenyatta University,
Kenya

Abstract:

Learners with hearing impairment who also have Emotional and Behavioural Disorders (EBD) suffer additional problems that greatly impact their academic achievement, particularly in inclusive and metropolitan schools in Kenya. Teachers play an important role in altering these behaviours; nevertheless, they face a number of challenges that restrict their effectiveness. This study looked into the difficulties teachers experience while addressing emotional and behavioural issues in students with hearing impairments in order to improve academic performance in Kenyan urban areas. The study followed a descriptive survey approach and focused on instructors working in special schools and inclusive units in urban locations. Questionnaires and interviews were used to collect data, which were then examined qualitatively and quantitatively. According to the findings, teachers face significant problems such as insufficient training in special needs education, low competency in Kenyan Sign Language, insufficient teaching and learning tools, overcrowded classrooms, and negative or mixed attitudes toward students with dual needs. Furthermore, communication hurdles and a lack of parental and institutional support exacerbate behaviour adjustment efforts.

ⁱ Correspondence: email enelima@kise.ac.ke, simiyu.elizabeth@ku.ac.ke

Keywords: learners, hearing impairment, emotional and behavioural disorders, teacher challenges

1. Background

Educating learners with hearing impairments who also have Emotional and Behavioural Disorders (EBD) remains a major difficulty, particularly in Kenya's inclusive and metropolitan school settings. Despite the government's commitment to inclusive education and fair learning opportunities, the academic performance of these students remains continuously low, generating concerns among educators, policymakers, and stakeholders.

According to research conducted in Kenya, students with hearing impairment suffer a variety of challenges that impede both learning and behaviour regulation. For example, Murunga (2017) discovered that students with hearing impairments in Nairobi County struggle with communication, curriculum adaptation, and social interaction, all of which have a negative impact on their academic achievement. These communication limitations can lead to dissatisfaction, social isolation, and the emergence of emotional and behavioural issues.

Similarly, Ernest's (2022) research in Kilifi County found that oppositional and disruptive behaviours among students with hearing impairments significantly lead to low academic achievement. Such behaviours necessitate specific intervention and modification tactics, which many teachers are unprepared to perform.

Research on Emotional and Behavioural Disorders in Kenya demonstrates that teachers have significant difficulty in managing such students. Mboya, Odongo, and Omoke (2016), as well as subsequent research in Siaya County, found that students with EBD exhibit behaviours such as impulsivity, absenteeism, and concentration issues, which disrupt learning and classroom management. The study also identified negative or mixed instructor attitudes, a lack of specialized training, and large class numbers as significant impediments to effective intervention.

Additional research on hearing impairment in inclusive settings shows that teachers face challenges such as poor knowledge of Kenyan Sign Language, insufficient teaching resources, and insufficient special needs education training (Wawire & Namunga, 2023). These constraints hinder teachers' capacity to alter behaviour and successfully adapt education for students with dual requirements, such as hearing impairment and EBD. More recent research, such as that by Odhiambo, Ouko, and Onchari (2024) in Homa Bay County, confirms that teachers in inclusive classrooms lack the necessary skills, time, and resources to meet varied student needs, including behavioural difficulties.

This scenario is exacerbated in metropolitan areas, where classes are frequently overcrowded, and student diversity is significant. While various interventions and policies have been implemented, there is still a lack of empirical research on how teachers modify emotional and behavioural disorders in students with hearing impairments to

improve academic performance, particularly in Kenya's urban/metropolitan regions. Most previous studies focus on either hearing impairment or EBD separately, leaving a gap in understanding their combined impact on classroom practice. As a result, the purpose of this study is to look into the difficulties that teachers have while modifying emotional and behavioural disorders among students with hearing impairments in Kenyan urban areas, with the goal of enhancing academic performance and developing more effective intervention tactics.

2. Literature Review

Teaching students with Emotional and Behavioural Disorders (EBD), particularly when combined with hearing impairment, is one of the most challenging aspects of special needs education worldwide. According to research, students with EBD demonstrate a variety of behavioral tendencies, including hostility, withdrawal, and concentration challenges, necessitating the use of personalized instructional and behavioral modification tactics. However, teachers frequently encounter substantial hurdles, such as insufficient training, a lack of specialized educational resources, and restricted support systems. Shurr, Bouck, and McCollow's (2025) study in the United States found that instructors struggle to apply evidence-based behavioral interventions due to a lack of professional development and institutional support. Similarly, global research highlights that the integration of behavioral modification with communication demands (such as sign language) is rarely well-coordinated, resulting in poor academic performance among learners with dual disabilities. This underscores the need for multidisciplinary collaboration and continuous teacher training.

In the African context, obstacles in addressing Emotional and Behavioural Disorders (EBD) among learners with hearing impairment are exacerbated by systemic concerns such as insufficient funding, unfavourable cultural conceptions of disability, and a dearth of qualified special needs teachers. According to research conducted in Sub-Saharan Africa, inclusive education policies are frequently not adequately implemented in the classroom. For example, Schuster and Kolleck (2024) argue that, while many African countries have established inclusive education frameworks, implementation is sluggish due to poor teacher ability and inadequate institutional support. Teachers regularly describe problems in adjusting curricular content to accommodate the dual requirements of students with EBD and hearing impairment, especially in packed classes without assistive technology.

Similarly, Mugo (2017) point out that many schools in Sub-Saharan Africa lack formal behavioural intervention frameworks, requiring instructors to rely on conventional disciplinary tactics rather than evidence-based behavioural modification strategies. This reduces the effectiveness of teaching and learning processes for students who have complex demands. Furthermore, Miles (2019) emphasizes that the stigma associated with both behavioural disorders and hearing impairment continues to influence learner participation and lowers teacher expectations, resulting in poor

academic performance. These findings highlight the disparity between inclusive education policy and actual classroom practice in the African area.

Several recent studies in Kenya demonstrate the persisting issues that teachers encounter while addressing EBD among students with hearing impairments. A study conducted by Chemaiyo, Murungami and Otube (2024) at Kenyatta University in Nairobi discovered that teachers lack adequate abilities in implementing EBD-friendly instructional strategies and behavioral treatments. The study also found that most teachers use generalized teaching approaches that fail to meet specific behavioral and communication needs, resulting in poor academic achievement among students with EBD. Similarly, Murithi, Mwirichia & Gachohi (2022), Kenya Methodist University, Meru, found that while assistive technologies can improve academic outcomes for students with hearing impairments, teachers face challenges such as a lack of technical skills, insufficient devices, and poor maintenance systems. These difficulties impede the effective adjustment of learning settings to satisfy both behavioral and auditory needs.

3. Material and Methods

3.1 Research Design

The study adopted a descriptive research design as the primary approach for data collection through observation and interviews of the sampled participants. This design enabled an in-depth assessment of behavioural disorders and their implications as observed in the units for learners with hearing impairment and special schools for the hearing impairment included in the study. The measured variables included behaviour modification techniques used to address emotional and behavioural disorders among learners and academic performance, which represents the outcome following the application of behaviour modification strategies.

The research was carried out in the Metropolitan region comprising Nairobi City, Kiambu, Machakos and Kajiado Counties, where the researcher visited various special schools with students having hearing problems and in different public schools to ascertain the gap in the study. The study targets a total of 26 administrators, 280 teachers and 1050 learners with hearing problems among 26 special schools and units

Table 1: Targeted Population

Location/County	Total No. Schools/Units	Head teachers/ Deputy Head Teachers	Teachers	Learners with HI and EBD
Nairobi	9	9	68	365
Kajiado	2	2	9	150
Machakos	7	7	93	275
Kiambu	8	8	110	260
Total	26	26	280	1050

3.2 Sampling Techniques

To sample the learners with HI, the purposive sampling method was used to sample the learners from different special schools and units in the Metropolitan Region. Simple random sampling was also used to select the teachers, head teachers and the deputy head teachers. The total sample size comprised learners with hearing impairment, teachers and head teachers, illustrated as follows:

Table 2: Sample Size

Category	Population	%	Sample
Head teachers/ Deputy Head teachers	26	10%	3
Teachers	280	10%	28
Learners with HI	1050	10%	105
Total	1282	10%	129

3.3 Data Analysis

All the quantitative data collected from the responses entered in the questionnaires were systematized as per the answers issued, coded and keyed on SPSS for analysis. Percentages and frequencies were predetermined and presented in the form of pie charts and graphs. A combination of means and standard deviations was used to establish different behaviour modification techniques used by teachers and their effects on academic performance among learners with HI. The qualitative data generated from interviews were analysed through the thematic analysis technique. This method was relevant since it gave a broader view into the interactions between behaviour modification and the academic performance of learners with HI.

4. Results and Discussion

To establish the challenges faced by teachers in modifying emotional behaviour disorders (EBD) among learners with hearing impairment (HI) in selected counties, the study respondents were asked to indicate their levels of agreement with multiple statements on the same. Their responses on a 5-point Likert scale were analysed and presented in Table 3.

The analysis of teacher responses in the table revealed a set of interrelated barriers that hinder the effective management of EBD and the subsequent academic performance of learners with HI. Difficulties in establishing effective communication stood out as one of the most common challenges for the sampled teachers. A substantial proportion of the respondents (71.4%) either strongly agreed or agreed that formulating effective communication strategies to engage all learners remains a persistent challenge ($M = 4.00$, $SD = 0.83$). The findings align with the general understanding that hearing impairment has an inherent impact on learners' ability to acquire language and express themselves effectively, as previously reported by Farid, Ishtiaq & Hussain (2020).

Table 3: Challenges in modification of behaviour disorders for learners with HI

Statements	SA		A		U		D		SD		Total		
	F	%	F	%	F	%	F	%	F	%	F	Mean	SD
There are difficulties in formulating effective communication strategies to engage all learners	11	39.3	9	32.1	5	17.9	3	10.7	0	0.0	28	4.00	.83
It is challenging for teachers to prepare adequately for all the classes and lessons	10	35.7	8	28.6	7	25.0	2	7.1	1	3.6	28	3.86	.74
Some concepts are challenging to explain effectively to all learners	13	46.4	12	42.9	0	0.0	3	10.7	0	0.0	28	4.25	1.47
The work often compromises teachers' mental health	14	50.0	5	17.9	3	10.7	4	14.3	2	7.1	28	3.89	1.03
The curriculum in the current education system is rigid	11	39.3	5	17.9	9	32.1	0	0.0	0	0.0	28	3.64	1.21
There is inadequate use of assistive technology	14	50.0	6	21.4	4	14.3	1	3.6	0	0.0	28	3.86	1.16
Lack of resources in most inclusive classrooms	20	71.4	5	17.9	0	0.0	0	0.0	0	0.0	28	4.29	0.45

The observation was also reflected during the interview sessions, where one of the interviewed teachers reported that;

"We try to go beyond just delivery the content, but it is quite challenging to get the learners to understand what is expected socially and emotionally...the language gap makes it difficult for them to understand even basic instructions."

The above sentiments tend to confirm previous findings by Maes, Scheper, Hermans & Vissers (2025) on the close association between hearing impairment and delays in language acquisition among learners with HI. They reported that such learners often lag behind in terms of their ability to comprehend and respond to social and emotional cues due to the reduced access to incidental learning that is associated with hearing ability (Maes, Scheper, Hermans & Vissers, 2025). Hence, effective engagement with such learners may require specialized communication strategies that may not have been received by most of the teachers in the sampled schools. This lack of adequate preparedness is likely to undermine the effectiveness of behaviour modification techniques for learners with HI who are reliant on verbal reinforcement or nuanced communication.

Similarly, difficulty in explaining certain concepts to all learners effectively stood out as another challenge to most (89.3%) of sampled teachers. The 4.25 mean agreement (SD = 1.47) indicates a near-unanimous agreement on this challenge that was also identified by the respondents who were interviewed. One of them noted that;

"It is not easy to teach these learners about emotions like empathy or self-control... most of them lack the vocabulary or the experiential background to understand what these things mean."

The findings point to the emotional and social difficulties that learners with HI face, as had been noted by Borghi (2020). His research observed the difficulty in conveying abstract concepts, especially those involving emotional or social themes, to learners with HI. He attributed such difficulties to the fact that such learners have limited access to auditory information and abstract vocabulary (Borghi, 2020). Therefore, learners with HI are likely to struggle in their efforts to understand the rules, expectations, and consequences that are associated with behavioural regulation. As such, the pedagogical limitation presents spiral effects on the instructional and behavioural outcomes among learners with HI.

Closely linked to these instructional challenges is the reported difficulty in preparing for all classes and lessons, with 64.3% of teachers affirming this concern (M = 3.86, SD = 0.74). Teachers working with learners with HI, especially those with comorbid emotional disorders, often need to customize their teaching methods, create visual aids, simplify content, and anticipate behavioural disruptions. This significantly increases their workload compared to general education teachers, as was highlighted by a teacher who lamented that:

"Each lesson requires twice as much time to prepare. I have to create visual aids, translate ideas into sign language, and anticipate possible behavioural issues. It's exhausting."

These findings align with Mogale (2025), who stated that effective inclusive pedagogy requires differentiated instruction that is responsive to learner diversity, which can be time-consuming and exceedingly demanding when there is no adequate support or resources for the teachers involved.

Teacher well-being also emerged as a significant theme among the challenges identified by the respondents. About 50% of the respondents expressed strong agreement with the statement that work compromises their mental health, with an overall agreement level of 67.9% (M = 3.89, SD = 1.03). This finding tends to confirm the prevalence of emotional exhaustion and burnout among teachers of special education as previously reported by Alexaki Antonopoulous, Kintoni, Adamopoulos, & Haikiopoulos (2025). The researchers attributed such mental disorders to the intensity of emotional and behavioural demands of engaging learners with different specialized needs. In the Kenyan context, these challenges may be exacerbated by other factors such as larger class

sizes, insufficient training, and lack of psychological support systems for the teachers (Mutahi, Tarsilla, & Maku, 2024). Therefore, the ability of such teachers to properly implement consistent and empathetic behaviour management strategies can be compromised by emotional fatigue that subsequently affect academic performance of their learners.

According to 57.2% of respondents, teachers' effectiveness at implementing functional behaviour modification strategies is also hampered by the rigid nature of the current curriculum. This challenge received a 3.64 mean agreement ($SD = 1.21$) among the sampled teachers, indicating moderate agreement that such rigidity is a common issue within the sampled schools. Therefore, the teachers are somehow hindered from adopting flexible content and pedagogy that is suited for unique learning environments across different schools. A study by Sharma and Singh (2024) supported this view by arguing that inclusive education requires curricula that are adaptable to diverse learner needs, especially in contexts where learners have communication and behavioural challenges. Hence, inflexible curricula seem not to be accommodative to the pace and style of learning required by learners with HI, thus limiting opportunities for effective academic and behavioural interventions.

In terms of technological support, the majority of the sampled teachers (71.4%) indicated that there was inadequate use of assistive technology in their institutions ($M = 3.86$, $SD = 1.16$). Assistive technology, exemplified by hearing aids, speech-to-text software, and visual learning tools, has significant potential in enhancing communication and engagement for learners with HI. However, the limited use of such technology points to systemic gaps in resource provision and training. According to Murithi, Mwirichia & Gachohi (2022), assistive technology plays a crucial role in closing the language and behaviour gaps for learners with HI, and its underutilization can severely hinder behavioural and academic progress.

Lack of necessary resources in most inclusive classrooms seems to be the most pressing concern in the sampled schools, as identified by the majority of the study respondents. A staggering 89.3% of the sampled teachers strongly agreed or agreed with this statement ($M = 4.29$, $SD = 0.45$), with minimal variation in responses. This finding reflects a near-universal consensus among teachers and is supported by prior studies in the sub-Saharan African context. For instance, Zickafoose, Illesanmi, Walumbe, Riaz, Manrique, Adeyemi, Strong, Wingenbadi, Rodriguez & Dooley (2024) reported that inadequate teaching materials, overcrowded classrooms, and insufficiently trained personnel are persistent issues that affect the quality of special needs education across the region. The absence of resources ranging from learning aids to psychological support services is likely to present severe constraints on the teachers' ability to modify emotional behaviour disorders effectively.

5. Recommendations

Given the high prevalence of both externalized (aggression, peer intimidation) and internalized (low self-esteem, social phobia) behavioural disorders among learners with a comorbidity of EBD and HI, the study recommends urgent institutionalization of structured psychosocial support in special schools and units. Policymakers should also mandate the deployment of trained counsellors fluent in Kenyan Sign Language (KSL) and provide continuous training for teachers on emotional intelligence, trauma-informed teaching, and behaviour management strategies suited for HI learners.

A follow-up study is also recommended to explore the systemic, cultural, and logistical factors that hinder or promote family engagement in Kenyan special education contexts. This could inform the design of more inclusive, community-based support models and guide policy improvements for home-school collaboration in behaviour management

6. Conclusion

This study set out an application of behavior modification techniques on improvement of academic performance among learners with hearing impairment (HI) in selected counties in Kenya. The findings provide clear evidence that emotional and behavioral challenges are prevalent among learners with HI and that carefully structured behavior modification strategies significantly enhance their academic engagement and outcomes.

Creative Commons License Statement

This research work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0>. To view the complete legal code, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.en>. Under the terms of this license, members of the community may copy, distribute, and transmit the article, provided that proper, prominent, and unambiguous attribution is given to the authors, and the material is not used for commercial purposes or modified in any way. Reuse is only allowed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

Conflict of Interest Statement

The authors declare no conflicts of interest.

References

Alexaki, P.-S., Antonopoulou, H., Gkintoni, E., Adamopoulos, N., & Halkiopoulos, C. (2025). Psychological Dimensions of Professional Burnout in Special Education: A

- Cross-Sectional Behavioral Data Analysis of Emotional Exhaustion, Personal Achievement, and Depersonalization. *International Journal of Environmental Research and Public Health*, 22(9), 1420. <https://doi.org/10.3390/ijerph22091420>
- Borghi, B. (2021). History, civic education and heritage education: the challenges of teachers in a democratic society. In *Proceedings of the 2nd International Conference of the Journal Scuola Democratica "Reinventing Education"*, Vol. 1, Citizenship, Work and The Global Age (pp. 771-782). Associazione "Per Scuola Democratica". Retrieved from <https://cris.unibo.it/handle/11585/875318>
- Chemaiyo, C., Murugami, M., & Otube, N. (2024). Instructional Strategies for Learners with EBD in Nandi Central, Kenya. *European Journal of Special Education Research*, 11(1). <http://dx.doi.org/10.46827/ejse.v11i1.5810>
- Ernest, O. A. L. (2022). *Academic Implications of Defiant Behavior Disorder on Performance of Learners with Hearing Impairment in Selected Special Schools, Kilifi County, Kenya* (Doctoral dissertation, Kenyatta University). Retrieved from <https://ir-library.ku.ac.ke/server/api/core/bitstreams/3a40ff4a-2cad-478e-8828-d67c14518ea1/content>
- Farid, A., Ishtiaq, M., & Hussain, M. S. (2020). A review of effective reading strategies to teach text comprehension to adult English language learners. *Global Language Review*, 5(3), 77-88. [https://doi.org/10.31703/glr.2020\(V-III\).09](https://doi.org/10.31703/glr.2020(V-III).09)
- Maes, J. H., Scheper, A. R., Hermans, D., & Vissers, C. T. (2025). Incidental learning and social-communicative abilities in children with developmental language disorder: Further evaluating the implicit learning deficit hypothesis. *International Journal of Language & Communication Disorders*, 60(2). <https://doi.org/10.1111/1460-6984.70017>
- Mboya, H.A.O., Odongo, B.C., & Omoke, C. M. (2016). Identifying and teaching students with emotional and behavioral issues in inclusive elementary schools in Kenya. Retrieved from <https://ir.jooust.ac.ke/items/e986e3d5-beda-4e96-ba9b-8379be9f1432>
- Miles, C. P. (2019). *Disability, stigma and education in developing countries*. Birmingham: University of Birmingham, School of Education.
- Mogale, M. L. (2025). Differentiated instruction as a strategy to support progressed learners within inclusive classrooms. In *Global Practices in Inclusive Education Curriculum and Policy* (pp. 343-364). IGI Global. <https://doi.org/10.4018/979-8-3693-4058-5.ch014>
- Mugo, J. M. (2017). *Inclusive education in Kenya: Policy, practice and teacher preparedness*. Nairobi: Kenyatta University, Department of Special Needs Education.
- Murithi S., Mwirichia S., & Gichohi P. M. (2022). Use of listening assistive technologies and academic success in students with hearing impairments. Meru: Kenya Methodist University. <https://doi.org/10.71274/ijpp.v10i2.239>
- Murunga, E. Y. (2017). Challenges in teaching and learning for learners with hearing impairment in integrated programs in Nairobi County, Kenya. Kenyatta

- University. Retrieved from <https://ir-library.ku.ac.ke/items/035969a9-8cf2-4651-8624-5b63a4dc400b>
- Mutahi, K. E., Tarsilla, K., & Maku, G. P. (2024). Influence of Institutional Capacity on the Competitiveness of TVET Institutions in Nyeri County. *International Journal of Professional Practice* 12(2). <https://doi.org/10.71274/ijpp.v12i2.417>
- Odhiambo, L. A., Ouko, O. H. M., & Onchari, I. B. (2024). Instructional techniques and classroom accommodations in Homa Bay, Kenya.
- Schuster, J., & Kolleck, N. (2024). Between capacity development and contestation: a systematic review of the involvement of inter-and non-governmental actors in inclusive education. *International Journal of Inclusive Education*, 28(8), 1450-1473. Retrieved from <https://doi.org/10.1080/13603116.2021.1994033>
- Sharma, K., & Singh, S. K. (2024). *Educational Issues and Challenges: A Teacher's Perspective*. Casa Editorial.
- Shurr, J., Minuk, A., Östlund, D., & Schrei, T. (2025). Global Issues and Perspectives in Education for Students with Intellectual Disability. In *Handbook for Educating Students with Disabilities: Implications and Strategies* (pp. 393-410). Cham: Springer Nature Switzerland. Retrieved from https://link.springer.com/rwe/10.1007/978-3-031-57286-9_19-1
- Wawire, T. M. (2023). KSL mastery and academic success in Western Kenya. Retrieved from <https://ir-library.mmust.ac.ke/xmlui/handle/12345789/2775?show=full>
- Zickafoose, A., Ilesanmi, O., Diaz-Manrique, M., Adeyemi, A. E., Walumbe, B., Strong, R., Wingenbach, G., Rodriguez, M. T., & Dooley, K. (2024). Barriers and challenges affecting quality education (Sustainable Development Goal# 4) in sub-Saharan Africa by 2030. *Sustainability*, 16(7), 2657. <https://doi.org/10.3390/su16072657>