

Adequacy of Teaching–Learning Resources in Facilitating Inclusive Education for Learners with Hearing Impairments in Mombasa County, Kenya

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ABSTRACT

Inclusive education has emerged as a global priority aimed at ensuring equitable access to quality education for all learners, including those with disabilities. However, the successful implementation of inclusive practices depends significantly on the availability of adequate teaching–learning resources. This study examined the adequacy of such resources in supporting learners with hearing impairments in public primary schools in Mombasa County, Kenya.

A descriptive survey design was adopted, involving 60 teachers and 20 headteachers from 20 inclusive public primary schools. Data were collected using questionnaires and interviews and analyzed using descriptive statistics and thematic analysis.

Findings revealed a substantial shortage of essential instructional resources, including assistive hearing devices, visual teaching aids, and specialized learning materials. These inadequacies hinder effective communication, reduce learner participation, and negatively affect academic achievement.

The study concludes that insufficient teaching–learning resources significantly impede the implementation of inclusive education. It recommends increased funding, provision of assistive technologies, and strengthened institutional support to enhance inclusive practices.

Keywords: Inclusive education, hearing impairment, teaching–learning resources, assistive technology, Kenya

INTRODUCTION

Inclusive education represents a transformative approach to education that seeks to accommodate all learners, regardless of their diverse needs and abilities. It is grounded in principles of equity, participation, and social justice, emphasizing that education systems must adapt to learners rather than requiring learners to conform to rigid structures (Cologon & Mevawalla, 2023). This paradigm shift aligns with global commitments such as the Salamanca Statement and Sustainable Development Goal 4, which advocate for inclusive and equitable quality education for all.

The implementation of inclusive education requires systemic changes, including curriculum adaptation, teacher training, and the provision of adequate teaching–learning resources (Alquraini & Gut, 2012). Among these factors, the availability of instructional resources plays a critical role in facilitating effective teaching and learning processes, particularly for learners with disabilities.

Hearing impairment presents unique challenges in educational settings due to its direct impact on communication and language development. Learners with hearing impairments often face difficulties in accessing auditory information, which is essential for classroom interaction and knowledge acquisition (Rosa et al., 2023). To address these challenges, specialized resources such as visual aids, assistive listening devices, and sign language support are required.

Globally, hearing impairment is a growing concern, with millions of individuals affected. The World Health Organization and the World Bank (2022) estimate that the number of people with hearing loss is expected to increase significantly in the coming decades. This trend is particularly pronounced in developing regions, where access to early intervention and support services is limited.

In Kenya, the government has demonstrated commitment to inclusive education through policy frameworks such as the National Education Sector Strategic Plan (2023–2027) and legislative measures supporting the rights of persons with disabilities (Ministry of Education, 2023; Kenya Institute of Special Education [KISE], 2018). Despite these efforts, challenges persist in the implementation of inclusive education, particularly in relation to resource availability and teacher preparedness.

Empirical studies indicate that many schools lack the necessary teaching–learning resources to support inclusive education effectively. Teachers often report difficulties in accessing specialized materials and assistive technologies, which limits their ability to implement inclusive instructional strategies (Maguvhe & Mutambo, 2023).

Mombasa County provides a critical context for examining these issues. Although it is an urban region with relatively better infrastructure, the increasing enrollment of learners with hearing impairments has not been matched by adequate resource provision. This discrepancy raises concerns about the effectiveness of inclusive education practices in the region.

This study therefore investigates the adequacy of teaching–learning resources in facilitating inclusive education for learners with hearing impairments in public primary schools in Mombasa County.

LITERATURE REVIEW

Conceptualizing Inclusive Education

Inclusive education is defined as an approach that ensures all learners, regardless of their differences, are accommodated within mainstream education systems. It requires adjustments in teaching methods, curriculum, and learning environments to meet diverse learner needs (Alsolami & Vaughan, 2023).

The shift from the medical model to the social model of disability emphasizes that barriers to learning arise from environmental and systemic factors rather than individual impairments. This perspective underscores the importance of removing barriers within educational systems to facilitate inclusion (Alquraini & Gut, 2012).

Teaching-Learning Resources in Inclusive Education

Teaching–learning resources are essential for effective instruction and learner engagement. These resources include textbooks, visual aids, assistive technologies, and specialized equipment designed to support diverse learning needs.

For learners with hearing impairments, visual and assistive resources are particularly important, as they compensate for limitations in auditory processing (Philip, 2024). The use of such resources enhances comprehension, participation, and retention of knowledge.

However, studies have consistently shown that many schools lack adequate resources. Atieno et al. (2024) found that insufficient teaching–learning materials negatively affect both teaching effectiveness and learner outcomes in inclusive settings.

Challenges in Implementing Inclusive Education

The implementation of inclusive education is hindered by several challenges, including inadequate funding, limited teacher training, and lack of institutional support. Financial constraints often limit the procurement of specialized resources and equipment (Ireru et al., 2020).

Teacher preparedness is another critical factor. Many teachers lack the necessary skills and knowledge to implement inclusive practices effectively (Onditi et al., 2025). Additionally, infrastructural limitations and negative attitudes toward disability further complicate the implementation process (Murillo Jiménez et al., 2025).

Empirical Evidence on Resource Adequacy

Empirical research highlights the importance of resource availability in determining the success of inclusive education. Maguvhe and Mutambo (2023) found that inadequate resources significantly hinder curriculum implementation. Similarly, Ridwan et al. (2025) emphasize that disparities in resource allocation contribute to inequalities in educational outcomes.

In Kenya, studies indicate that many schools lack essential instructional materials and assistive technologies for learners with hearing impairments, which negatively affects their academic performance and participation.

Research Gap

Despite the growing body of literature on inclusive education, there is limited research focusing on urban contexts such as Mombasa County. Most studies have concentrated on rural areas, leaving a gap in understanding the challenges and opportunities in urban settings.

This study addresses this gap by examining the adequacy of teaching–learning resources and their role in facilitating inclusive education in Mombasa County.

METHODOLOGY

Research Design

A descriptive survey design was used to collect data on resource adequacy and instructional practices (Maxwell, 2020).

Participants and Sampling

The study involved 60 teachers and 20 headteachers from 20 public primary schools. Teachers were selected using simple random sampling, while headteachers were purposively included (Mugenda & Mugenda, 2019).

Results and Discussion

Table 1.1: Adequacy of Teaching–Learning Resources

Response	Frequency	Percentage (%)
Very inadequate	3	5
Inadequate	45	75
Adequate	12	20
Total	60	100

The findings indicate that a majority of respondents (75%) perceive teaching–learning resources as inadequate. This aligns with previous studies that identify resource shortages as a major barrier to inclusive education (Maguvhe & Mutambo, 2023; Onditi et al., 2025).

CONCLUSION

The study concludes that inadequate teaching–learning resources significantly hinder the implementation of inclusive education for learners with hearing impairments.

RECOMMENDATIONS

- Increase funding for Special Needs Education
- Provide assistive technologies and instructional materials
- Strengthen teacher training
- Conduct further research on funding adequacy

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