

# Instructional Strategies and Challenges Faced by Teachers in Promoting Inclusive Learning for Learners with Hearing Impairments at Oriang' Inclusive Primary School, Homa-Bay County, Kenya

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## ABSTRACT

Instructional strategies are key to the academic success of any education system. Diverse classrooms require diverse teaching methods that are responsive to the needs and abilities of all the learners. This study purposed to investigate the instructional strategies of teaching and learning used for the learners with hearing impairments and challenges faced by the teachers in inclusive classrooms. The study was conducted at Oriang' Inclusive Primary School in Homa-bay County, Kenya. Ecological Systems Theory by Bronfenbrenner model (1989) was used. The study targeted all the 17 teachers and 620 learners. Purposive sampling technique was used to draw a sample of 26 respondents comprising the Head Teacher, 13 inclusive classroom teachers and 12 learners. Data collection instruments comprised a semi-structured interview guide and focus group discussion guide. NVivo software was used for analysis that involved systematic coding and organisation of data to identify recurring themes. The findings established that teaching and learning resources must be available to enable diversified instructional methods in inclusive classrooms that include learners with hearing impairments. Challenges included teachers lacking training in inclusive education, large class sizes and limited lesson duration that is not enough to attend to all the learners. The study recommends that the government, through the Ministry of Education, should allocate more funds to inclusive primary schools for the purchase of adequate teaching and learning resources to support the effective inclusion of LHIs and the County Governments should allocate funds for the construction of additional classes in inclusive primary schools to help in decongesting the classes.

**Keywords:** Inclusive Learning, Learners with Hearing Impairments, Inclusive Classrooms, Instructional Strategies, Challenges

## BACKGROUND OF THE STUDY

Global trends show that many learners with hearing impairments are educated in inclusive classrooms (Paatsch & Toe, 2020). In the United Kingdom, majority of learners with hearing impairments are educated in mainstream schools and more than 80% of learners with hearing impairments attend inclusive schools in the United States and varied types of support are availed to them (Tsach & Most, 2016; Salter, Swanwick & Pearson, 2017). Instructional strategies refer to the various methods used by instructors to deliver their lessons (Persaud, 2023). Effective instructional strategies get all the learners actively involved and fully participating in the learning.

Inclusive classrooms have diverse learners with varying educational needs. Some of the learners may have special educational needs and / or disabilities while some may not have demanding learning challenges. These learning spaces of complex instruction which is mostly delivered through spoken language with visual supports that include images, films, gestures, pictures and non-captioned or captioned videos (Paatsch & Toe, 2020).

A study by Erbas (2017) in the Midwestern United States on strategies that teachers used to support including learners with hearing impairments into regular classrooms established that teachers used various instructional strategies to deliver content during the lessons. These included short and brief directions and verbal instruction, varied instructional activities that engaged every learner, notes written on the board, interaction opportunities between learners with and without hearing impairments, repeating information and questions and answers from other learners. Sign language interpretation, integration of technology, spoken language, class discussions, clear and audible speaking, individual activities; asking learners brief and clear questions, independent studies; and individual and group instructions were availed in classes. The teacher engaged some of the learners directly while some of the learners worked with their peers. The teacher included the use of visual aids in all subjects for all learners. These included task organizers, daily schedules, classroom rule charts, pictures, classroom routines, and conceptual maps. Support through technology included signed videos providing vocabulary in written format, iPads with educational application, flashcards, internet, notes written on the board and the use of facial expressions and gestures clearly.

Chataika, Kamchedzera & Semphere (2017) explored the challenges that teachers in regular primary schools faced when planning instructional strategies for inclusive classes in Malawi. The study found that teachers had challenges that ranged from lack of appropriate knowledge and skills of instructional strategies that are inclusive of all the learners in a diverse class. A number of teachers lacked sign language skills for effective communication with the learners who were deaf. Learners who were deaf were excluded from learning because some of the teachers did not know how to support them.

### **The Problem Statement**

The education Sector Policy for Learners and Trainees with Disabilities of 2018 (Government of Kenya, 2018) in its first policy statement clearly spells out inclusive education (IE): “mainstream and provide for inclusive education and training at all levels of learning”, hence, inscribing inclusion at the core of education in all learning and training institutions and instilling the access to education as a fundamental right of every Kenyan child. Necessary accommodations and modifications that ensure equal opportunities for learners with hearing impairments (LHIs) in the general classrooms are usually not made available to optimise their access to instruction or are usually very inadequate. Most teachers are trained in general education, with a few trained in special needs education and just a handful trained in inclusive education. This implies that most teachers in inclusive schools lack the requisite skills of instructing inclusive classrooms that include LHIs. This study therefore aimed to investigate the instructional strategies and challenges faced by teachers in promoting inclusive learning for learners with hearing impairments at Oriang’ Inclusive Primary School, Homa-Bay County, Kenya. The study put into consideration that reasonable accommodations must be put in place to ensure that all the learners in inclusive classrooms equally have access to learning.

### **Objectives of the Study**

The main objectives of this study were:

1. To establish the instructional strategies that promote inclusive learning at Oriang’ Inclusive Primary

School, Homa-Bay County, Kenya.

2. To identify the challenges faced by teachers that hinder the implementation of inclusive learning at Oriang' Inclusive Primary School, Homa-Bay County, Kenya.

## The Theoretical Framework

The study was guided by the ecological systems theory by Urie Bronfenbrenner (1989).

The theory explains how the development of a child is affected by the interaction of complex processes with the environmental conditions around him or her.

**Microsystem:** This level consists of factors that exist in the immediate environment of a learner. The factors give the effectual, specific, first-hand experiences of a learner's academic setting of the classroom, teachers, parents, peer, and community relationships. In the school system, the factors that directly impact the learner in the inclusive classroom include: classroom organisation and modifications, individualised educational programme, sign language interpretation, captioning services, amplification devices and social relationships with peers.

**Mesosystem:** This includes two or more interrelated settings in which the learner is actively participating in. These include: teacher-parent collaboration, collaboration by professionals and peer groups. Very well coordinated professional collaboration between the teachers and fellow teachers and between teachers and other professionals, who are working together in the interest of the learners lead to very good results in IE. Teacher-parent collaboration allows for joined efforts in the support of learning, transition and academic advancement. The relationship between LHIs and their peers without HIs within the classroom setting may affect how they interact inside and out of the classroom and in turn affect learning.

**Exosystem:** This level comprises settings in which the learner is not an active participant, but whose events occurrences affect the learner, or are affected by the occurrences in the environment of the learner (Ettetal & Mahoney, 2017). It includes influences from those in administrative positions like policy creators and implementers and business entities (Horton, 2016).

**Macrosystem:** The macrosystem is defined as the "consistencies in the form and content of lower-order systems that exist at the level of the subculture or the culture as a whole, along with any belief system or ideology underlying such consistencies" (Bronfenbrenner, 1979). Schools and classrooms should be designed to eradicate barriers that prevent the LHIs from realising their full potential, by making education accessible to all, thus ensuring equal learning chances in inclusive classrooms (ICs).

The ecological systems theory effectively linked to this research. Inclusive education principle holds that it is imperative to make all the necessary arrangements for support systems at the community, school and classroom levels to ensure equal opportunity in the educational accessibility by learners with hearing impairments.

## REVIEW OF RELATED LITERATURE

### Instructional Strategies used in Inclusive Classrooms

In inclusive education, one size does not fit all (Basic Education Coalition, 2023). Natural classrooms, whether regular or inclusive, consist of diverse needs of learners. It is thus imperative that instruction is accessible to all the learners. Leifa (2020) evinced during a study of ICs that successful implementation of inclusive strategies can lead to increased social involvement, personal well-being, and higher academic

performance, compared with segregated school settings.

Instructional presentation of content should be based on the principles of universal design for learning (Hayes, Turnbull & Moran, 2018), for instance, it should be provided in multiple formats that include both visual and verbal instructions. Presenting verbal information alongside visual representations makes information more memorable (Njuki, 2017). Teaching materials should include audio-visually, realia and models that the learners can interact with to concretise the concepts being taught including abstractness. Using information technology, reduction of distractions through proper classroom arrangements, preferential seating of LHIs who can lip-read or perceive some slight sound and respecting all the learners should be embraced. The use of simplified text, concrete examples, breaking tasks into smaller components and visual supports helps to breakdown the abstractness of concepts (Njuki, 2017). Provision of enough “think time” for the learners to process the content, extra practice, drawing the learners’ attention prior to instruction and checking learners’ understanding is crucial.

The instructional information should be very clear, simple-structured and sequential. Clear communication and pronunciation of words while facing the learners is important to allow LHIs who are hard of hearing and those who are post-lingually deaf to lip-read. Instructional strategies are affected by classes handled by the teachers.

Nyabuto (2014) in her research on factors influencing implementation of inclusive learning (IL) programme in Primary Schools for LHIs in Mbeere South Sub County, Kenya, used descriptive survey design, targeted a population of 380 teachers. Stratified random sampling and proportionate sampling were applied to select a sample of 114 respondent teachers. The study established that teachers need to be adequately trained in inclusive education instructional strategies in order to credibly deliver accessible instruction to all learners within inclusive classrooms.

In her research, Kigotho (2016) explored the barriers faced by LHIs in IL environment of the University of Nairobi. Her cross-sectional descriptive study sought to examine the social and institutional barriers that LHIs faced. The study respondents comprised 10 LHIs at the university. The study established that LHIs did not access instruction when sign language was not used or provided. Other factors that hindered access to instruction that led to poor academic incomes included incompetent interpreters, inadequate infrastructure and the lecturing mode of instruction.

Effective teaching in a diverse class of learners requires the differentiation of instructional methodology, curriculum materials, and assessment methods; both SNE teachers and regular teachers must work together when designing curriculum and instruction that are responsive to the diverse needs of the learners in their classrooms (Jorun & Jeyaprabhan, 2016). Instructional use of SL interpretation in an IC, is not only a necessity but a mandatory support service to the LHIs; information and communication technologies increase access to the curriculum and learning (Takala & Sume, 2018).

### **Challenges Faced by Teachers in Inclusive Classrooms**

General education teachers who receive additional support services get more positive towards inclusion than those without, who express concerns about their additional workload (Saloviita & Schafus, 2016). This is because only a few educators have the competence and positive attitude toward LHIs (Gulzar, 2021). Ngadni, Singh, Ahmad & Baharudin (2023) contend that some teachers especially those who have never had any experience with LHIs experience difficulties adjusting their lesson plans and instructional routines from a traditional instructional strategy to a specialised teaching strategy to be able to accommodate LHIs or challenges, thus, for a multitude of reasons, many teachers find it challenging to embrace inclusive teaching methods that promote IL. The barrier of inadequately trained teachers resonates with the situation in most

public schools where most schools have teachers who lack requisite skills, neither do they have the opportunity for professional development in IE (UNESCO, 2020). Ngadni *et al.* (2023) posit that there are very few resources available and that the lack of facilities and unqualified teachers attributed to an inadequate budget impact on IL and the success of its implementation by the teachers. The lack of sufficient training in the basics of behaviour management, teaching curriculum criteria for learners in various groups of abilities and needs, special methods of teaching different learning areas, knowledge of academic and research factors that influence child development, psycho-diagnostics basics, and learning techniques are major setbacks to any teacher who lacks them (Karynbaeva, Shapovalova, Shklyar, Emelyanova & Borisova, 2020).

Mungai (2015) in her research on challenges facing the implementation of IE in public primary schools in Mwea East District, Kirinyaga County, Kenya, used descriptive survey design. The study targeted the school heads and teachers from all the 66 public primary schools in Mwea East District. Schools were selected by simple random sampling while teachers and head teachers were selected by purposive sampling. The study established that rigid curriculum, inadequate resources and personnel, ineffective teacher training, stress factors that inhibit job fulfilment and lack of parent-teacher engagement are great challenges that face the implementation of IL. The researcher only mentioned teachers as important school community members but did not delve into the challenges that are faced by teachers in ICs.

Teachers without the knowledge of SL may feel incapable and frustrated when they are unable to communicate with the LHIs. SL should not only be used as a medium of communication amongst LHIs and teachers, but also as a medium of instruction. The communication breakdown partly contributes to poor performances (Kayeye, Chumba, & Kapkiai, 2016). The lack of support to ICs teachers from their fellow teachers, parents and care-givers and school administrations leaves them to deal with every situation and issue on their own, leading to their underperformance in their core duty of instruction. The reviewed literature confirmed the need to promote quality inclusive learning and that learners with hearing impairments can thrive in ICs when accommodations and support systems are put in place. The literature did not reveal the instructional strategies that enable the inclusion of LHIs within a primary school context and the challenges faced by teachers in promoting IL of LHIs in a Primary School context and therefore, this was the basis of the topic that had to be researched on to make an establishment.

## METHODOLOGY

### Research Design

This research was based on case study design that made the researcher able to collect concrete, contextual, detailed, in-depth meaningful insights on the instructional strategies used in inclusive classrooms with learners with hearing impairments and the challenges faced by teachers in promoting inclusive learning. It also enabled the researcher to explore the meanings, implications and key characteristics that were specific to the case (McCombes, 2023).

### Target Population and Sample

The adoption of purposive sampling had the researcher to target all the 17 teachers and all the 620 LHIs at Oriang Inclusive Primary School. This was a total of 637 respondents. The sample size comprised 26 respondents. This included the Head Teacher, 13 teachers who had been teaching in ICs for at least one year to give their views and experiences about IL and 12 LHIs who had been learning in ICs for at least one year. The LHIs were drawn from grades 4-8; who could effectively describe their lived academic experiences on IL to understand their personal meaning and perspectives, thus leaving out learners without hearing

impairments. The school was selected for the study because it enrolls both learners with and without disabilities and had been including learners with HIs into the regular classrooms.

### Methods of Data Analysis and Presentation

The analysis and presentation of the data focused on an objective-oriented approach and scope of the study. NVivo software was used for analysis that involved systematic coding and organisation to identify recurring themes. Data was imported, coded and grouped into broader themes and subthemes to enable a comprehensive exploration, revealing connections and relationships. The iterative process yielded valuable insights and informed research findings. Where there were direct quotations from the respondents, verbatim was used to present the data.

## FINDINGS AND DISCUSSIONS

### Instructional Strategies for the Inclusion of LHIs

This objective sought to establish the instructional methods that enabled the inclusion of LHIs into ICs. The teachers' focus group discussion (FGD) revealed a rich array of instructional strategies that teachers employ to ensure the inclusion of LHIs at Oriang' Inclusive Primary School. Collaborative teaching emerged as a prominent strategy, with teachers emphasising on its benefits. This approach aligned with the broader goals of fostering social integration and holistic learning. T1OI23 explained:

*“Collaborative teaching is advantageous for LHIs. It fosters interaction with peers, enabling them to learn through discussions and teamwork. It not only promotes learning but also learner-to-learner engagement.”*

Use of gestures and body language was highlighted as an effective means of communication. Teachers recognised that gestures can transcend language barriers and convey meaning directly. T3OI23 elaborated:

*“Gestures play a key role in the teaching of learner, including LHIs. LHIs can understand concepts through visual cues, even without relying solely on verbal communication. Combining this with other aspects of communication gives a lot of meaning to the communicated content when LHIs are included.”*

Above finding underscored the commitment of the teachers to leveraging multiple modes of communication. This finding aligned with the study findings of Gutierrez-Sigut *et al.* (2022) who pointed that integrating visual cues the face during instruction contributed to better uptake of learning by the LHIs.

Visual aids emerged as a cornerstone of instructional practice for LHIs. According to the LHIs, visual aids were critical in facilitating the understanding of the teaching content for LHIs. These aids complemented verbal instructions and promoted a multisensory learning experience. One learner highlighted the importance of visual aids, underscoring their significance in ICs. L2OI23 said:

*“Teachers use many examples to teach subjects. They come with pictures, drawings, sometimes we see video of things like in Science. When I see something, I remember. I remember long time. When teacher use nothing, I remember little and forget fast.”*

Teachers acknowledged the value of visual representations in enhancing LHIs' understanding of abstract concepts.

T10OI23 remarked:

*“Visual aids, such as charts and diagrams, are invaluable. LHIs relate to images, which makes the lesson content more accessible and memorable to them. I try my best to make sure that I have such during my lessons but sometimes I fail to get the best ones to use.”*

This strategy reflected a thoughtful effort to accommodate diverse learning styles. The incorporation of

varied teaching methods was also evident during the FGD. Kibuuka (2017) advised that visual aids should be made available to all learners so that all of them can access learning during lesson instructions. T12OI23 said:

*“We also use approaches such as project-based learning, excursions, role play and the use of songs. These methods are beneficial to all learners, not only the LHIs because they make learning more practical, fun and concretise the abstractness of some concepts, for instance, in Mathematics. So, depending on the content to be taught, one plans accordingly including the strategies of content delivery.”*

These methods catered to the diverse learning preferences among the LHIs, fostering engagement and active participation. These were further supported by the learners during the semi structured interviews. The instructional approaches and techniques used were crucial in ensuring that LHIs received meaningful and effective education.

Group discussions emerged as the most prominent instructional strategy used within the ICs. When probed why this was the case, T14OI23 explained:

*“First, for me, and I think it may apply to my colleagues too... this method ensures that all the learners are following the lesson because one has to do what correspond s to the content just taught. This way, no learner remains to idle or disturbs the class during the lesson. In addition to this, this method allows all learners to engage in dialogue, share ideas and learn collaboratively. LHIs benefit from this interactive approach, as it encourages communication and knowledge exchange among peers.”*

One learner mentioned, “group discussions,” when asked about the method of instruction that is mostly employed by the teachers, highlighting the utilisation of this strategy by their teachers. The incorporation of songs as an instructional strategy signifies a multisensory approach to learning. T1OI23 said:

*“By leveraging on both auditory and visual senses, songs enhance LHIs’ engagement and understanding of the subject matter. Through rhythm and melody, complex concepts can be simplified, aiding comprehension. Songs also add fun to learning and learners always enjoy when songs are used.”*

Learners, during their semi-structured interview, agreed that songs made lessons fun and simplified some content perceived as difficult. L4OI23 noted:

*“Lessons with songs are really enjoyable. Songs make it easy to master what teacher has teach. It is hard to forget lesson if you know song well.”*

Peer teaching, where learners teach and learn from each other, was also acknowledged by the respondents. This approach fosters a sense of community and support among the learners. It encourages active participation and interaction with peers, contributing to LHIs’ holistic educational experience. L1OI23 shared, “Sometime we are taught by our fellow peers who have better understood the concept,” emphasising the collaborative nature of ICs. L2OI23 added:

*“Sometimes teachers tell pupil who understand better to explain to all of us. When pupil explain, I understand because he use easy gramma and also make me feel I can try too because me pupil too. Also, pupil repeat many time.”*

### **Challenges that Hinder the Implementation of Inclusive Learning by the Teachers**

This objective sort to identify the challenges faced by the teachers that hinder the implementation of IL. The FGD delved into the challenges encountered by the teachers in their efforts to promote IL for LHIs. Time

management emerged as a notable concern. The standard lesson duration was expressly deemed insufficient to adequately address the learning needs of LHIs. T3OI23 expressed:

*“The limited lesson time of 35 minutes poses great challenges when teaching an inclusive class. LHIs require additional time for processing information and also to allow me as the teacher to attend to his or her learning needs. This make me sometimes to just move on with those are following because at the end of the day, I must also finish the syllabus in time.”*

T6OI23 added:

*“The classes are big and diverse. The time is not enough. This is a day school, so, we are here for the day only. However much one tries, there still is some lag in content coverage. These realities force us to sometimes ignore more demanding cases of learners.”*

A significant challenge highlighted by teachers was the lack of attention given to LHIs during lessons. Teachers recognised the need for specialised teaching methods that cater to their unique needs. T10OI23 shared during the FGD:

*“We often lack effective teaching strategies for LHIs. As a result, they may not receive the attention they require during lessons. Most of us are not trained in SNE or IE. We get support from the few who are trained amongst us but during lessons, we are alone.”*

This reflected a gap in teacher training and pedagogical resources for IL. The teachers also acknowledged that LHIs faced self-esteem issues due to their condition. This emotional aspect of inclusion adds complexity to the teaching process. T12OI23 emphasised:

*“LHIs may experience low self-esteem. This is because of their condition. Creating a supportive environment is crucial to boosting their confidence and participation. Without doing that, most of them lack the morale to study or even work hard like their peers.”*

This insight underscored the need to address not only academic challenges but also the holistic well-being of LHIs. The challenges posed by large class sizes were also discussed. Teachers recognised that managing a large number of learners can hinder their ability to provide individualised attention to LHIs. T8OI23 said:

*“Our classes are so big. This limits quality contact time between me and the LHIs who require more time. I try to support them after classes with IEP – like most of us do – but still, this is not enough. You will still find gaps between them and the regular learners.”*

Inadequate teaching aids further compounded this challenge, limiting the effectiveness of instructional practices for LHIs. T2OI23 said:

*“The school tries to provide the teaching aids. They are however not enough to support LHIs. we do not have speakers in classes (which are very big), we lack projectors to help us use audio-visuals as teachings. Most of the time, we create or make a-do with what is available but this does not take care of the learning needs of LHIs appropriately.”*

## CONCLUSIONS

The dedication of teachers in employing diverse instructional strategies was commendable. The use of gestures and body language and visual aids facilitated the concretisation of the teaching content and breaking of abstractness of concepts in subjects like Mathematics and Science. This highly contributed to



the understanding of the teaching content by LHIs because they complemented the verbal instructions because LHIs are visual learners. It was noted from the FGD with the teachers that the visual aids were not adequate enough to support teaching and learning in a diverse class that includes LHIs, for instance, audio-visual aids were never used since they were not available at the school. The group discussions as a method of instruction, however, did not come out as so effective to all the LHIs. Those who could not express themselves well shied off from the discussions while those who could not perceive sound effectively struggled to follow the discussions. Overall, this method benefited the most, learners without hearing impairments. There were, however, some challenges that negatively affected inclusive learning. The very big class sizes and limited lesson duration reduced the contact time between the teachers and the LHIs who require more time to understand. This led to teachers obviously ignoring the LHIs even when they knew that they could be having questions for clarification on the taught content. These eventually affected the performance of the LHIs which was punctuated by lagging behind their peers without hearing impairments.

## RECOMMENDATIONS

The study recommends that:

1. The government, through the Ministry of Education, should allocate more funds to inclusive primary schools for the purchase of adequate teaching and learning resources to support the effective inclusion of LHIs.
2. The County Governments should fund the construction of additional classes in inclusive primary schools to help in decongesting the classes.

### Recommendation for further Research

A study should be conducted on the role played by Ministry of Education Quality Assurance to ensure quality of education in inclusive schools.

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