EVALUATION OF PARENTAL FACTORS FOR INTERVENTION OF SPEECH AND LANGUAGE DELAY AMONG CHILDREN AGED 3-5 YEARS IN KAWANGWARE, NAIROBI CITY COUNTY, KENYA

BY

FRANCINE ASAMBA

E55/CE/34059/ 2017

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE AWARD OF DEGREE OF MASTER IN SPEECH AND LANGUAGE PATHOLOGY IN THE SCHOOL OF EDUCATION AND LIFE-LONG LEARNING, KENYATTA UNIVERSITY

JUNE, 2025

DECLARATION

I hereby declare that this project is my original work and has not been submitted for a degree in any other university. This study is supported by referenced sources that have been properly acknowledged.

Signature……………………………… Date……………….…………...

Francine Asamba

E55/CE/34059/ 2017

SUPERVISOR

The outlined work in this research project has been submitted for assessment with my approval as the appointed University supervisor.

Signature……………………………… Date…………………………...

Dr. Mathew Karia

Lecturer, Department of Special Surgeries

Kenyatta University

DEDICATION

I dedicate this research work to God, my family and friends and all individuals whose contributions made the completion of this project possible.

Special gratitude to my dad Mr. Gabriel Asamba whose constant encouragement and push for tenacity has been the driving force behind my academic pursuits.

I would also like to dedicate this work to my lecturers Kenyatta University, speech and language Pathology Dr. Mathew Karia(my supervisor) and Dr. Tom Abuom whose professional training, scholarly advice and mentorship throughout the course of my studies.

I acknowledge great assistance received from my clinical supervisor Jinagna Shah (SLP Agakhan University Hospital) during my 6 months clinical internship where I acquired extensive Speech and language Therapy expertise and competence.

ACKNOWLEDGEMENTS

I want to start by expressing my gratitude to the Almighty God for allowing me to pursue this path and for bringing me this far. Appreciation goes to my project supervisors Dr. Mathew Karia who deserves special recognition for his academic leadership, support, unwavering dedication, and encouragement whenever I needed it.

Many thanks to all the lecturers at Kenyatta University's Department of Early Childhood and Special Needs Education – Speech and Language Pathology for their support.

My special gratitude goes to the headteachers, teachers, parents and learners in Riruta HGM Special School and Dagoretti Muslim Primary School.

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ABBREVIATIONS AND ACRONYMS

ASD	**:**	Autism Spectrum Disorder
CCDP	**:**	Comprehensive Child Development Programme
DSLD	**:**	Developmental Speech and Language Disorders
EI	**:**	Early Intervention
EMT	**:**	Enhanced Milieu Teaching
GDD	**:**	Global Developmental Delay
PPCT	**:**	Process, Person, Context and Time
SES	**:**	Socioeconomic Status
SLD	**:**	Speech and Language Delay

ABSTRACT

The study aimed to evaluate parental factors for appropriate intervention of speech and language delay among children aged 3-5 years in Kawangware, Nairobi City County. The study's objectives were: to conduct an investigation on parental awareness of speech and language delay in Kawangware, Nairobi City County, determine parental knowledge of therapy for speech and language available for children with speech and language delay in Kawangware, Nairobi City County and to adopt parent-implemented speech and language intervention techniques to address speech and language delays in Kawangware, Nairobi City County. The study was guided by the theory of human development presented in Bronfenbrenner's Bio Ecological Model. A descriptive research design was adopted in the study. The focus of the study was on 30 children between ages 3-5 who are speech and language delayed and their parents from Riruta Holy Ghost Mission Special School and Dagoretti Muslim primary school. The study employed purposive sampling technique. A pilot study was carried out at Kawangware Primary School to determine the reliability and validity of research instruments. The information was collected by interviewing parents. The data collected was analysed using both quantitative and qualitative methodologies. The analysis revealed varying levels of parental awareness regarding speech and language delay. Many parents were unsure of when children should begin babbling or forming sentences, and often attributed delays to factors such as gender, premature birth, or multilingual environments. Regarding the second objective, majority of parents reported having heard of speech therapy; however, less than half were aware of local services, indicating a moderate level of general awareness but limited functional knowledge. Thematic analysis revealed that parents often relied on informal sources for information and lacked clarity on how therapy works or where to find it. For the third objective, qualitative data indicated that although formal questions were not posed, many parents actively engaged in home-based interventions such as encouraging conversations and repeating words. This suggests a strong parental willingness to support their children if provided with appropriate guidance and tools. The study concludes that there is a critical need to raise parental awareness of speech and language development; disparities in access to services and knowledge hinder effective intervention; and parent-led strategies, when supported, can significantly enhance communication outcomes. To address these issues, it is recommended that: community sensitization campaigns and parent education forums be implemented through partnerships with local healthcare and early childhood centres, and (targeted outreach initiatives such as posters, flyers, and referral pathways be developed to help parents locate and access speech and language therapy services in their locality.

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.0 Introduction

The first chapter covered the background of the study, problem statement, purpose of the study, objectives of the research, research questions, study's significance, the limitations and delimitations and the operational definition of terms.

1.1 Background of the Study

Speech and Language Delay (SLD) refers to a condition in which a child's development of speech and language skills occurs significantly later than that of their age-matched peers. SLD may be associated with identifiable conditions such as hearing loss, intellectual disabilities, neurological disorders, or anatomical impairments like cleft palate (Paul et al., 2021; Wang et al., 2018). In other cases, speech and language delays occur in the absence of any clear underlying disorder, a condition known as Developmental Speech and Language Delay (DSLD). Children with DSLD exhibit delays that are specific to language and are not attributable to broader cognitive, emotional, or auditory impairments (Zhou et al., 2022). Research shows that unresolved language delays by school entry can have long-term consequences, affecting literacy development, academic achievement, social integration, and mental health (Morgan et al., 2020). However, most of this evidence has been derived from high-income countries, with limited insight into the presentation, progression, and outcomes of SLD in low-resource urban environments like Kawangware, Nairobi—highlighting a critical gap in localized understanding and response.

While some late-talking children catch up by age three, studies suggest that approximately 40–50% of these children do not, resulting in persistent language difficulties into middle childhood and adolescence (Zubrick et al., 2020). Early identification and intervention have been emphasized as crucial for mitigating long-term impacts. Yet, in many low- and middle-income countries (LMICs), children with early signs of speech and language delays are often not assessed or supported until school age, if at all (Alisic et al., 2021). This delay may be due to a lack of awareness among parents and caregivers regarding developmental milestones or inadequate access to early childhood screening and intervention services. The absence of timely intervention frameworks tailored to LMIC contexts, including urban informal settlements, underscores the need for focused research in such areas.

Parental Socioeconomic Status (SES) is a key factor influencing language development. Studies consistently show that children from low-income families tend to have smaller vocabularies, reduced language stimulation at home, and slower language acquisition overall (Rowe & Leech, 2021). Maternal education, in particular, has been identified as a strong predictor of children's language outcomes, often acting as a proxy for the linguistic environment at home (Salo et al., 2022). Socioeconomically disadvantaged families may also lack access to books, play materials, and interactive opportunities that promote expressive and receptive language growth. While these associations are well-documented in high-income contexts, there is a dearth of research from urban slums in Kenya where multiple risk factors—poverty, low maternal literacy, overcrowded housing, and limited early childhood services—converge. This gap calls for localized

studies examining how socioeconomic home environments in communities like Kawangware affect speech and language development and intervention.

Recent research emphasizes that parents play an indispensable role in early intervention for children with speech and language delays. Parent-implemented intervention programs—such as dialogic reading, responsive interaction, and modeling strategies—have proven effective in improving children's language skills when caregivers are adequately trained and supported (Roberts & Kaiser, 2020). Global best practices advocate for family-centered approaches that empower caregivers as active facilitators of intervention. However, in under-resourced settings, many parents are unaware of their role in supporting speech development or lack the knowledge and tools to implement interventions at home (Azad et al., 2023). In Kenya, the integration of parents into early speech-language intervention remains inconsistent and poorly documented. There is an urgent need to understand the level of parental engagement in such interventions within marginalized urban communities to inform policy and practice.

Awareness and knowledge of speech-language therapy are critical components of effective intervention. International studies reveal that many parents, even when concerned about their child's language delay, often do not understand the scope of speech therapy or how to access services (Alqahtani & Almehmadi, 2022). In LMICs, access is further hampered by a shortage of trained speech-language pathologists (SLPs), lack of culturally adapted therapy materials, and linguistic diversity. For instance, in Tanzania, parental understanding of speech-language services was found to be minimal, and few were familiar with local therapy providers (Mrema et al., 2023). South Africa remains the

only Sub-Saharan African country with relatively structured speech-language training and services, and even there, access remains inequitable. Kenya, like many of its East African neighbours, faces acute shortages of SLPs, especially in low-income communities (Wylie et al., 2023). There is a notable absence of studies assessing parental awareness and knowledge of therapy services in Nairobi's slums, such as Kawangware despite clear indications that community-specific strategies are needed to improve access and utilization.

The effectiveness of speech and language interventions also depends on cultural beliefs and perceptions. Some parents view speech therapy as a clinical service restricted to professionals, with little recognition of their own role in the process (Safwat & Youssef, 2021). A recent qualitative study in Egypt found that although parents had been exposed to information about speech therapy, most believed that only specialists could facilitate meaningful progress, side lining their own involvement. Such attitudes may result in delayed or passive responses to early signs of speech delay. In Kenya, a study by Obure (2018) found that few caregivers actively participated in intervention programs due to lack of knowledge, resources, or guidance from professionals. However, little is known about the beliefs and intervention behaviours of parents in Nairobi's informal settlements. This highlights the need to evaluate not just awareness, but also practical intervention behaviours among caregivers in areas like Kawangware.

In Kenya, speech-language therapy remains an emerging profession. The country lacks sufficient numbers of certified SLPs, especially in public health and education systems. According to the WHO and World Bank (2011), disparities in access to rehabilitative

services are widest in low-income areas, where early intervention is most needed. Despite communication being recognized as a basic human right (McLeod, 2018), most children in informal settlements with language delays do not receive professional support due to a combination of systemic and contextual barriers. The World Bank and WHO report confirms that in Kenya, services are either severely limited or non-existent, especially in urban slums such as Kawangware. Given that parental involvement and home environment are critical for early language development, there is a strong rationale to evaluate the home-based factors that could enable or hinder early intervention. This study therefore aims to fill these critical knowledge gaps by evaluating home factors that influence appropriate intervention for SLD among children aged 3–5 years in Kawangware, Nairobi City County, Kenya.

1.2 Problem Statement

The acquisition of speech and language is a fundamental milestone in a child's cognitive, emotional, and social development, especially within the first five years of life, a critical period often referred to as the foundation for future learning (Black et al., 2021). During this phase, the brain undergoes rapid growth, forming the neural networks essential for communication and comprehension. When delays in speech and language development occur, they may signal underlying neurodevelopmental disorders such as autism spectrum disorder or intellectual disabilities (McLaughlin et al., 2020). If left unaddressed, such delays can evolve into long-term speech and language disorders that negatively impact a child's academic performance, emotional well-being, and future employability (Rudolph et al., 2022). Despite the significance of early

intervention, there is limited awareness and understanding of speech and language disorders in Kenya, particularly in low-income urban areas such as Kawangware.

As a densely populated informal settlement within Nairobi City County, Kawangware presents a unique intersection of risk factors including low household income, high unemployment, overcrowded living conditions, and limited access to educational and healthcare services (UN-Habitat, 2022). These conditions contribute to limited parental capacity to recognize early signs of speech and language delay and to access professional intervention services. Research on parental involvement in early speech and language development has predominantly focused on high-income countries. Even fewer studies have explored how Kenyan parents, especially those in informal settlements, perceive and respond to early signs of speech and language delay. There is an urgent need to understand whether parents in Kawangware are aware of speech and language delays, knowledgeable about existing therapy services, and actively involved in implementing home-based interventions. Without such knowledge, many children may miss the crucial window for effective early intervention, potentially widening the developmental gap as they enter school. Therefore, this study seeks to fill this critical gap by evaluating the home factors that influence timely and appropriate intervention for speech and language delay among children aged 3–5 years in Kawangware.

1.3 The Purpose of the Study

The study sought to evaluate parental factors for proper intervention of speech and language delay among children between 3-5 years in Kawangware area Nairobi City.

1.4 Research Objectives

i. To examine parental awareness of speech and language disorders in Kawangware, Nairobi City County.

ii. To determine parental knowledge of speech and language therapy available for children with speech and language delay in Kawangware, Nairobi City County.

iii. To establish parent-implemented speech and language intervention measures for speech and language delay in Kawangware, Nairobi City County.

1.5 Research Questions

i What is the level of parental awareness of speech and language disorders among parents of children aged 3–5 years in Kawangware, Nairobi City County?

ii What knowledge do parents in Kawangware have about speech and language therapy services available for children with speech and language delay?

iii What speech and language intervention measures are implemented by parents for children with speech and language delay in Kawangware, Nairobi City County?

1.6 Significance of the Study

This study is of great significance to multiple stakeholders involved in the care, development, and education of children with speech and language delays (SLD), particularly within low-resource settings like Kawangware. At the academic level, the study contributes to the researcher's personal and professional growth by enhancing their knowledge base, strengthening research skills, and fulfilling partial requirements for the

award of a Master’s degree in Speech and Language Pathology. It provides a foundational platform for further research in the field, especially on contextualized interventions in speech and language therapy within underserved populations.

For speech-language pathologists (SLPs) and their trainers, the study offers data-driven insights that may inform the design of more relevant and culturally appropriate intervention strategies. The findings can guide trainers and practitioners in developing therapy models that take into account the specific parental awareness, knowledge, and home-based practices observed in communities like Kawangware. This can improve treatment compliance, reinforce home-based intervention routines, and strengthen the collaboration between professionals and families.

Parents and caregivers stand to benefit significantly from the study, as it may highlight the importance of their role in early intervention and provide them with the awareness and knowledge needed to support their children's speech and language development at home. An improved understanding of parental involvement and existing knowledge gaps may also help community health workers and non-governmental organizations (NGOs) working in informal settlements to design targeted educational programs. Additionally, policymakers and education sector planners may use the evidence from this study to advocate for the inclusion of speech and language development support services in early childhood development (ECD) programs, particularly in marginalized areas. Ultimately, the study seeks to contribute toward more equitable and effective early interventions that can reduce the long-term impact of SLD among children aged 3–5 years in Kawangware and similar low-income communities.

1.7 Limitations and Delimitations of the Study

1.7.1 Limitations of the Study

This study faced certain limitations that may have influenced the depth and generalizability of the findings. First, the study relied heavily on self-reported data from parents and caregivers, which is subject to several biases. These include social desirability bias, where respondents may have overstated their involvement or knowledge to present themselves favourably, and recall bias, particularly when reporting past behaviours or observations related to their children's speech development. Such limitations could affect the authenticity and objectivity of the data collected.

Additionally, the use of questionnaires and structured interviews as primary data collection tools may have constrained the depth of information gathered, especially if respondents had limited literacy or were unfamiliar with the terminology used, even in translated versions. Although efforts were made to pilot test and simplify the instruments, some nuances of parental knowledge and practices may not have been fully captured.

Lastly, the sample size, determined by time and logistical constraints, may not have been large enough to fully represent the wider Kawangware community. While the findings offer valuable insights, they may not be wholly generalizable to other informal settlements or communities with different socio-cultural dynamics. The study's focus on one geographical area also limits its external validity, though it provides a strong foundation for future comparative or longitudinal studies across diverse settings.

1.7.2 Delimitations of the Study

This study was delimited to evaluating parental factors influencing appropriate intervention for speech and language delay among children aged 3 to 5 years in Kawangware, Nairobi City County. The focus on this specific age range was guided by evidence that children within this developmental window experience rapid language growth, and early interventions during this stage are most effective. Children below 3 years and those older than 5 were excluded in order to maintain developmental consistency and reduce variability in language acquisition patterns.

The study population was limited to parents and caregivers of children aged 3–5 years who exhibited signs of speech and language delay. Although teachers interact closely with children and could offer valuable perspectives, they were not included to ensure the study remained focused on home-based parental influences. This decision was made to prioritize the family context as the primary setting for early language development and intervention.

In terms of data collection, the study employed both a structured interview schedule and a speech and language screening tool. The interview schedule was used to gather quantitative data on parental awareness, knowledge, and intervention practices, while the screening tool was used to preliminarily identify children exhibiting characteristics of speech and language delay. However, qualitative approaches such as focus group discussions or open-ended interviews were not used. This was due to time and resource limitations, and the need to maintain consistency and objectivity across a relatively large sample.

The study also did not include a longitudinal component to track the impact of parental interventions over time. Instead, it adopted a cross-sectional design due to time constraints and the need for a manageable scope within the academic timeframe. Additionally, literature reviewed was restricted primarily to current and relevant sources published between 2020 and 2025, to ensure alignment with recent developments in the field. Older literature was excluded unless foundational or frequently cited in more recent studies.

Finally, the study was geographically confined to Kawangware, an informal settlement characterized by low socio-economic status. This setting was deliberately chosen to explore how poverty, limited access to services, and low literacy levels impact parental roles in early intervention. While this provides valuable localized insights, it also means that the findings may not be directly generalizable to higher-income or rural populations elsewhere in Kenya.

1.8 Assumptions of the Study

This research assumed the following:

1. Parents and caregivers who participated in the study provided truthful and accurate responses during the interviews and that their answers reflected their actual knowledge, awareness, and practices regarding speech and language delay (SLD).

2. Respondents had differing levels of awareness and knowledge about SLDs, which was critical for assessing variations in parental involvement and intervention strategies. It was not taken for granted that all parents understood the causes, signs,

or treatment options for SLD, particularly in the low-resource context of Kawangware.

3. Speech and language delay among children aged 3–5 years may occur under a variety of conditions, including but not limited to socioeconomic constraints, environmental factors, and caregiver-child interaction. However, it did not assume a single or uniform cause of SLD across the population and sought to explore the influence of home-based parental factors instead of clinical or congenital causes.

4. The selected speech and language screening tool was appropriate for identifying children at risk of SLD within the 3–5-year age group in the study area, despite the lack of standardized tools tailored specifically to the Kenyan context. It was also assumed that the structured interview schedule was valid for collecting reliable data from caregivers regarding their awareness, knowledge, and intervention practices.

5. The children identified through the screening tool were exhibiting consistent features of speech and language delay during the period of data collection, rather than temporary disruptions due to illness, trauma, or recent environmental change.

1.9. The Theoretical and Conceptual Framework

1.9.1. Theoretical Framework

This study was guided by Bronfenbrenner's Bioecological Model of Human Development, which emphasizes that child development is influenced by both biological dispositions and the dynamic interactions between the child and the surrounding environment. The theory is built around four key components: Process, Person, Context,

and Time (PPCT), which together explain how developmental outcomes emerge through continuous and reciprocal interactions.

Process refers to the everyday interactions and relationships that form the foundation of a child's development. For this study, parent-child interactions, including communication habits, caregiver responsiveness, and linguistic stimulation at home, were considered critical proximal processes influencing speech and language development. Person includes the characteristics of the child and those of the parent or caregiver. In this context, the study considered parental awareness, knowledge, and implementation of intervention strategies as individual attributes that significantly shape how children with SLD are supported.

Context encompasses the nested systems in which the child and caregiver exist. This study focused particularly on the microsystem—the immediate home environment—where the parent plays a direct role. The socioeconomic and literacy status of the parents, as well as their access to speech therapy resources, also connect with the exosystem, which indirectly affects the child through parental experience. Time represents both short- and long-term changes in the child's environment, including how early or delayed intervention may influence developmental outcomes. In this study, the 3–5 year developmental window was viewed as a critical period for effective parental engagement in early intervention efforts.

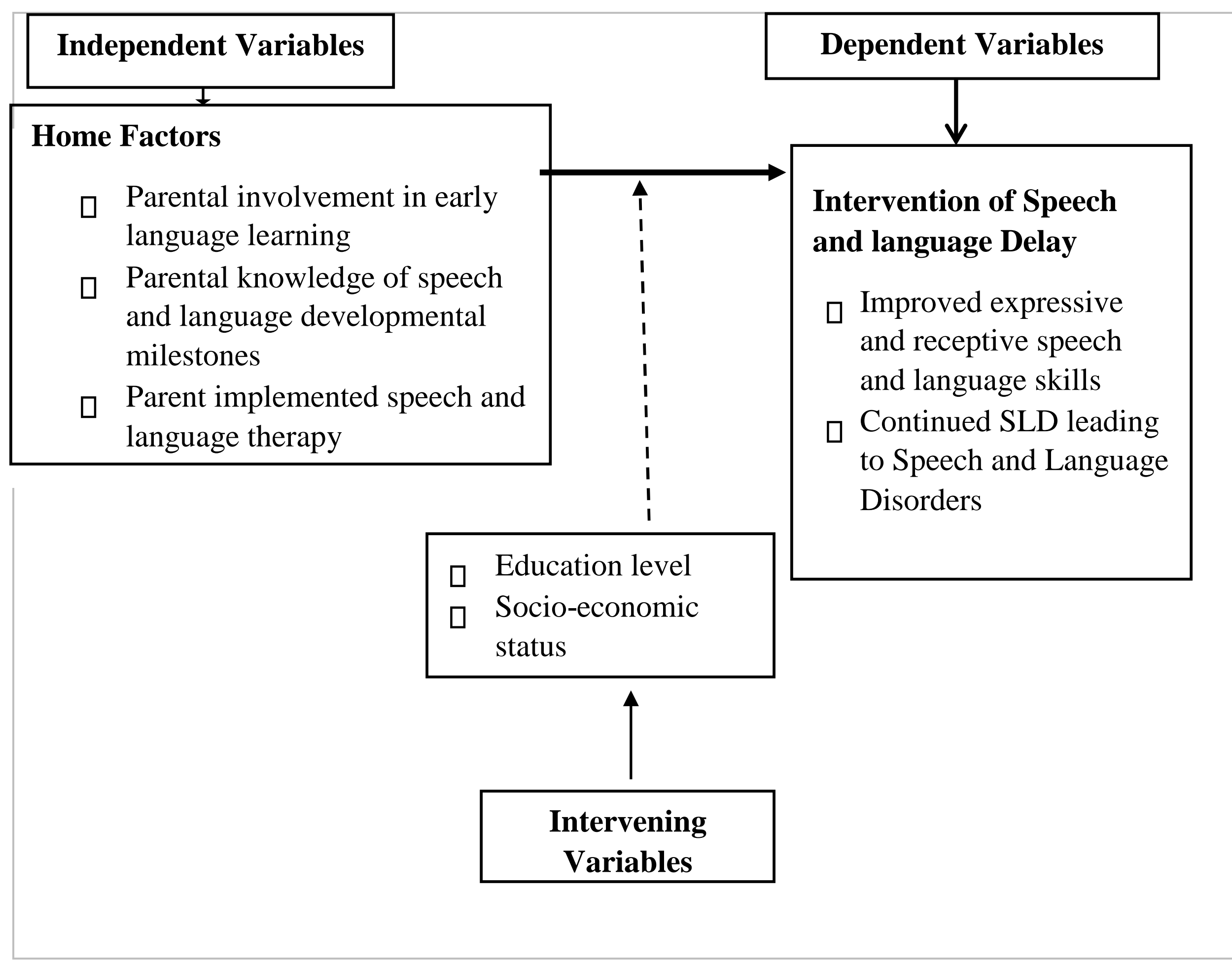
By grounding the research in Bronfenbrenner's model, this study emphasizes that parents are not passive bystanders but active agents in shaping their children's speech and

language development. The model supports the idea that parental awareness, parental knowledge of therapy options, and parent-implemented interventions are vital mechanisms through which early developmental delays can be identified and managed effectively.

1.9.2 Conceptual Framework

Figure 1.1 Conceptual Framework on home factors for proper intervention of speech and language delays

Figure 1.1: Conceptual Framework



***Source**: Researcher's own conceptualization of the study, 2024*

The interaction between the independent and dependent variables in this study illustrates how parental factors directly influence the effectiveness of interventions for speech and language delay (SLD) in children aged 3–5 years in Kawangware, Nairobi City County. The independent variables—parental awareness, knowledge of therapy options, and parent-implemented strategies—are crucial in determining how early and how effectively a child receives help. Parents who recognize signs of SLD and understand available services are more likely to seek timely, appropriate support, leading to better developmental outcomes. Moreover, the success of intervention efforts is strengthened when parents actively engage in their child's language development through home-based practices that complement professional therapy. The dependent variable—appropriate intervention of SLD is, therefore, a product of these parental factors. The findings emphasize that improving parental awareness, access to information, and practical skills is essential to bridging the gap between the presence of delay and effective response. This interaction highlights the need for targeted community education and support systems to empower parents in their critical role in addressing speech and language delays.

1.10 Operation Definition of Key Terms

Developmental Speech and Language Disorders (DSLD): Communication disorders affecting language and language learning, understanding, and use (NIDCD, October 2022)**.**

Early Intervention: The process of offering assistance and support to infants, little children and their families with or are prone to developmental delays, disabilities, or conditions that may interfere with their typical development or learning.

Parental factors refer to the specific attributes, behaviours, and conditions related to parents or primary caregivers that influence the identification, response, and support for children with speech and language delay

Risk Factors: Aspects of genetic or congenital traits associated with individual behaviour and lifestyle, environmental exposures, and health related diseases.

Speech and Language Delay: This happens when a child of the expected age cannot use words or other means of communication. Problems encountered include understanding what you hear or read.

Speech and Language Disorder: This is usually categorized by its impact on the communication capability; receptive skills (understanding) and expressive skills regarding articulation of speech, acceptable use of tempo and rhythm in speaking, appropriate tone and tone of voice, etc.

Speech Therapist: A professional trained in the prevention, evaluation, diagnosis, and treatment of speech impairments, and dysphagia in children and adults (ASHA, 2009).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter covers literature related to home factors for appropriate intervention of speech and language delay. It presents an outline of the pertinent research as used in the study and covers the main ideas and hypotheses associated with the research as well by examining existing materials on the study. Literature is reviewed based on the following sub-headings; parental awareness of SLDs, Parent implemented SL intervention measures for children with SLD, use of EMT in fostering language skills in early intervention.

2.2 Parental Awareness of Speech and Language Delays

Rosenfeld and Teich (2021, USA) conducted a cross-sectional survey involving 400 parents of children aged 2–5 years, assessing parental recognition of SLD using a standardized diagnostic checklist and self-report questionnaire. They found that only 45% of parents correctly identified key early signs of speech delay (e.g., limited vocabulary, unintelligible speech).This study, while robust, excluded low-SES settings and did not address how awareness translates into seeking intervention. There is a need to explore these dynamics among disadvantaged urban Kenyan parents.

Little et al. (2023, UK) employed a mixed-methods design—survey and semi-structured interviews—among 150 families with late-talking 3-year-olds. The study showed that parental awareness was strongly linked to engagement in early speech-pathology services. However, it also revealed that less than 30% of parents from lower-income

brackets felt confident in recognizing SLD. Although informative, the study did not examine contexts with limited professional resources; its findings cannot be generalized to slum communities lacking SLP access, such as Kawangware.

In Punjab, Pakistan, Aftab et al. (2025) looked at the stigmatization of parents of children with speech impairments and their level of understanding of speech issues. This study used a quantitative cross-sectional approach to find out how Punjabi parents in Pakistan perceive stigma and how much they know about speech impairments. To collect data, the study used a survey methodology. Parents of children with speech impairments in Punjab, Pakistan, were the target group. The study involved 81 parents in all. In contrast to dads and guardians, the findings showed that moms had higher awareness levels. Given the importance of education in raising awareness, parents with bachelor's degrees or more showed a significantly better understanding of speech difficulties. Stigmatization was pervasive and did not significantly differ across all educational levels. Compared to fathers and guardians, mothers reported feeling moderately stigmatized more frequently. Neither stigmatization nor awareness were statistically impacted by the relationship with the child.

In Tanzania, Obunge et al. (2022) assessed awareness among both parents and health professionals in Mwanza through questionnaires (n=85 parents, n=15 clinicians) and interviews. The descriptive survey revealed that less than 50% of parents knew where to find speech-language services, and many believed SLD was rare. Qualitative feedback highlighted confusion regarding professional roles. While demonstrating low awareness in Eastern Africa, this school-based hospital study does not reflect home-based

environments in informal settlements; thus, parental perspectives in Kawangware remain unexplored.

In Egypt, Mostafa (2021) implemented a cross-sectional study among 200 mothers in Sohag who had children with suspected developmental delays. Data were gathered via parent-report checklists. Findings showed that over 60% of mothers could not differentiate between speech delay and hearing problems, and 70% believed intervention should begin only after age 5. This highlights severe misconceptions in parental awareness but occurs in a rural–urban context different from Kenya. It underscores the need to investigate awareness within Nairobi's multicultural, densely populated informal settlements.

In Kenya, Owino et al. (2022) used questionnaires with 120 caregivers to assess awareness of childhood hearing and speech impairments. While 70% of parents identified hearing issues by age 3, only 25% recognized speech-language delays. Further, only 10% had ever referred their child for evaluation. Although illuminating, this study focused on hearing rather than SLD and did not explore parental beliefs or home-based intervention behaviours—areas that your study in Kawangware will address. Asamba and Karia (2025) conducted a survey among 90 caregivers in Dagoretti North, collecting data via structured interviews. They found that 75% of caregivers noticed speech delays, but only 40% connected them to therapy services, citing cost and lack of knowledge. However, the study focused broadly on home factors without disaggregating parental awareness, knowledge, and implementation. This underscores the need for granular analysis of

parental awareness independent of other home factors, particularly in Kawangware's unique low-resource context.

2.3 Parental Knowledge of Available Speech and Language Therapy Services

Klatte et al. (2024) explored the parents' needs in their collaboration with speech and language therapists (SLTs) during therapy for their young child with developmental language disorders (DLD). Parents of children with (a risk of) DLD in the age of 2–6 years were included for participation. Twelve parents of children with DLD participated in semi-structured interviews about their needs in collaboration with SLTs. The study used a phenomenological approach focusing on parents' lived experiences. The analysis of the interviews resulted in six themes: (1) knowing what to expect, (2) knowing how to contribute, (3) feeling capable of supporting the child, (4) trusting the therapist, (5) alignment with parents and children's needs, preferences and priorities and (6) time and space for asking questions and sharing information. Nonetheless, there might be a blind spot in our findings and in literature on parental needs, since parents who are frustrated with therapy or diagnosis might not be willing to participate in research studies in general.

Sikka et al. (2022) explored Indian parents' perspectives on teletherapy during the COVID-19 lockdown. Employing a quantitative design with 100 caregivers who had engaged in at least five teletherapy sessions, data were collected via structured telephone-administered questionnaires assessing satisfaction, cost-effectiveness, and perceived efficacy. Results showed that 95% of participants reported higher motivation and 96% expressed satisfaction with teletherapy, while 90% found it more affordable than in-

person therapy. However, there is limited understanding of how parents in informal settlements perceive speech therapy options and their preferences outside of telehealth contexts.

In the UK, Jensen de López et al. (2021) conducted qualitative interviews with parents in 10 countries (Europe and beyond) to explore understanding and navigation of speech/language services. Through semi-structured interviews (10 families, one per country), thematic analysis revealed that parents are knowledgeable about service function but face challenges navigating complex systems, unclear treatment pathways, and bureaucratic obstacles—even within universal health systems (Jensen de López et al., 2021). Although revealing global patterns of parental confusion about accessing services, this study lacks quantitative measures of parents' actual knowledge regarding therapy options, particularly in resource-limited and multilingual settings like Kawangware.

Obunge et al. (2022) examined both parents (n = 85) and health professionals (n = 15) in Mwanza regarding awareness and access to speech-language services using a mixed-methods survey and interviews. Less than 50% of parents knew where to seek therapy, citing misconceptions that SLD was rare or untreatable, and expressing confusion about professional roles (Obunge et al., 2022). While confirming low awareness in an East African context, this hospital- and school-based study overlooks home-based perspectives and ignores the informal settlement environment where access is even more constrained.

Although South Africa has better-established SLP training programs, Mrema et al. (2023) found via cross-sectional surveys of 120 parents in Northern Tanzania and South Africa

that formal knowledge about therapy services was limited; parents were uncertain about the roles of SLPs and procedures for therapy access, often relying on informal community advice. This reinforces a pattern of low service awareness but does not examine urban informal settlements or the unique interplay between parental knowledge and socioeconomic conditions—elements critical in Kawangware.

Owino et al. (2022) conducted a quantitative assessment with 120 caregivers in Kisumu using structured questionnaires to explore awareness of hearing and speech delays. While 70% identified hearing deficits by age three, only 25% recognized speech-language delays, and just 10% had referred their child for evaluation. Although illuminating hearing delay awareness, the study did not address parents' knowledge about speech-language therapy availability, accessibility, or the pathways to intervention—necessitating further investigation in Nairobi's informal settlements.

Asamba and Karia (2025) surveyed 90 caregivers via structured interviews. While 75% reported noticing speech delays, only 40% understood that therapy services existed, citing constraints such as cost and lack of information (Asamba & Karia, 2025). However, the study grouped "home factors" broadly and did not isolate parental knowledge of therapy services as a distinct variable. Though showing moderate awareness levels, the research did not examine specific parental understanding of available therapy services or how knowledge gaps may impact access and early intervention in slum contexts such as Kawangware.

2.4 Parent-Implemented Speech and Language Intervention Strategies

In China, Lai et al. (2025) focused on developing an intervention mapping (IM)-based and parent-implemented early intervention to improve speech and language skills among infants and toddlers with CL/P in China. An IM procedure was used to develop a parent-implemented early intervention. First, parent–child interaction problems affecting language development in infants and toddlers were identified through 132 questionnaires completed by parents of children with CL/P and 30 family videos of parent–child interactions. Second, according to the problem diagnosis, the logical model of parent–child interaction behavior change was constructed. Programs were designed by integrating various intervention techniques. The diagnosis of parent–child interaction problems showed that 40.91% of parents and children often use electronic media together; in parent–child interaction, 41.67% of parents presented ‘lack of waiting’, 29.55% overcorrected pronunciation errors. Video analysis revealed issues in parent–child interaction, such as inadequate parental skills, ineffective interactions, and an unsuitable environment. A parent-implemented early intervention was developed, including the following specific steps: health education within the hospital, 9 days of an online reading program in WeChat groups, face-to-face standardized training workshops, and individualized video feedback therapy.

In the United Kingdom, Hatherly et al. (2025) conducted a qualitative–quantitative mixed-method study exploring parent–child interactions during a parent-implemented language intervention for late-talkers. Parents (n=25) participating in this study received training on strategies such as modeling, turn-taking, and focused stimulation. Evaluations of recorded play sessions showed significant increases in parental responsiveness and

children's expressive vocabulary post-intervention. While demonstrating efficacy of responsive parenting techniques, this research was based in a context with available SLP support and did not explore how such interventions translate in low-resource settings like Kawangware, where professional guidance and structured programs may be limited.

Sawyer et al. (2025) designed a Parents Plus intervention to support parents, through online training and coaching, in using focused stimulation, an evidence-based strategy for fostering early language development. Thirty-one parents and their children with developmental language disorder participated in a small-scale randomized controlled trial to provide a preliminary test of Parents Plus. Sixteen parent–child dyads completed the Parents Plus intervention, while 15 parent–child dyads were in the control condition. Findings indicate that Parents Plus shows promise in improving children's vocabulary and morphosyntactic skills. Additionally, Parents Plus emerged as a socially valid approach, with parents reporting that its goals, content, procedures, and outcomes were acceptable.

In Kenya, Asamba and Karia (2025, Nairobi) evaluated home factors for intervention of speech and language delay among children aged 3-5 years in Kawangware, Nairobi City County, Kenya. The study was guided by the theory of human development presented in Bronfenbrenner's Bio Ecological Model. A descriptive research design was adopted in the study. The focus of the study was on 30 children between ages 3-5 who are speech and language delayed and their parents from Riruta Holy Ghost Mission Special School and Dagoretti Muslim primary school. The analysis revealed varying levels of parental awareness regarding speech and language delay. While some parents recognized signs such as articulation problems and difficulty following directions, others demonstrated

uncertainty or limited understanding. A significant proportion of parents (71.4%) had heard of speech therapy, indicating a moderate level of awareness. However, awareness of local services offering speech and language therapy was relatively low, with only 42.9% of parents being aware of such services. Multivariate analysis of the study revealed significant associations between parental knowledge, intervention measures, and speech development outcomes among children with speech and language delay in Kawangware, Nairobi City County. This study highlighted parental involvement but did not connect levels of knowledge and specific applications to measurable child-language outcomes, nor did it test scalable training interventions within routine community settings.

2.5 General and Reviewed Literature Gaps Summary

While global and regional studies indicate low to moderate parental awareness in both high- and low-income contexts, there is limited evidence exploring how awareness manifests in informal urban settings, especially within Nairobi's slums. Kenyan studies have largely focused on hearing impairment or bundled home factors, without isolating parental awareness as a standalone variable. This study will fill this gap by providing context-specific insights into parental recognition of SLD among children aged 3–5 years in Kawangware, thereby informing targeted early intervention efforts. The reviewed literature reveals consistent gaps across global, regional, and local contexts regarding parental knowledge of speech and language therapy services. Globally, while some parents are aware of therapy, they often struggle with navigating service systems or lack access in underserved regions.

Regionally, especially in parts of East and Southern Africa, studies highlight limited awareness, misconceptions about speech and language delay (SLD), and minimal understanding of the roles and availability of speech-language therapists. Locally, in Kenya, few studies isolate parental knowledge as a distinct variable, and none focus specifically on informal settlements such as Kawangware, where socioeconomic limitations and systemic barriers are more acute. To address these gaps, the present study employed both a screening tool and interview schedule to assess not only the levels of awareness but also the depth of parental knowledge about existing speech and language therapy services, including their availability, accessibility, and perceived effectiveness.

Most global and regional research confirms that parent-implemented interventions enhance speech outcomes, particularly when parents are trained in responsive strategies (e.g., modeling, turn-taking, focused stimulation). However, evidence from low- and middle-income, especially informal urban settings, is scarce. Locally, initial studies in Nairobi's slums highlight parental involvement but lack clarity on which strategies are culturally feasible, sustainable, and effective. This study addresses these gaps by: evaluating contextually relevant, low-cost intervention strategies that parents can effectively implement in Kawangware; Connecting specific parental actions, Investigating how socio-economic and educational backgrounds influence parents' abilities to learn and apply intervention techniques, and Offering empirically grounded recommendations for locally adaptable training programs that can be scaled within informal settlement frameworks.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter outlined the methodological techniques that were used to carry out the research. It covered the target population, variables, research tools, sampling strategies, pilot study, data collecting and analysis methods, research design, study location, and logical and ethical issues.

3.2 Research Design

A descriptive research design was used for the investigation. A descriptive design enables the systematic and accurate description of a phenomenon without manipulating any variables, thus providing a clear picture of the existing situation (McCombes, 2019). The design was well-suited to the study's three objectives: it allowed for the exploration of parental awareness, the assessment of knowledge of available speech and language therapy, and the identification of parent-implemented intervention measures as they naturally occur. Furthermore, the design supported both qualitative and quantitative data collection through tools such as interview schedules and screening tools, enabling a rich, comprehensive understanding of the issue from both numerical and experiential perspectives. The descriptive nature of the design also allowed for data collection in natural environments, which was critical for capturing the lived experiences of parents within the local context.

3.3 Study Location

The study was conducted in Kawangware, Nairobi City County, specifically targeting children aged 3–5 years with speech and language delay in two selected schools: Riruta HGM Special School and Dagoretti Muslim Primary School. These schools were purposively selected due to their enrollment of learners with special needs and neurotypical learners, thus offering a diverse population relevant to the study. Riruta HGM is a special needs institution, while Dagoretti Muslim is a mainstream public school that integrates learners with and without developmental challenges. Despite having learners with special needs, neither of the schools had access to professional speech therapy services, making them ideal for investigating parent-led interventions. Kawangware was selected over other informal settlements such as Mathare because of its dense population, higher visibility of informal schooling systems, and pronounced socio-economic challenges. As an urban slum, Kawangware is characterized by overcrowding, poor sanitation, and minimal access to affordable healthcare services, including speech therapy, which exacerbates the risk factors for speech and language delay. While no comprehensive study had been conducted in Kawangware to evaluate the prevalence and parental response to speech and language delay, similar studies in other low-SES contexts internationally suggest high likelihood of under diagnosis and unmet needs. Therefore, Kawangware provided a representative and urgent context for evaluating parental factors influencing appropriate intervention for speech and language delay.

3.4 Study Variables

This study focused on understanding the parental factors influencing appropriate intervention of speech and language delay among children aged 3–5 years in

Kawangware, Nairobi City County. The variables were classified into independent, dependent, and intervening categories as guided by the conceptual framework and aligned with the study objectives.

3.4.1 Independent Variables

The independent variables in this study were the parental factors believed to influence the intervention of speech and language delay. These included:

Parental awareness of speech and language disorders (reflecting the level of understanding parents have of typical versus atypical language development and early signs of delay),

Parental knowledge of speech and language therapy services (understanding what speech therapy entails, its availability, and when and how to seek it), and

Parent-implemented intervention strategies (actions taken at home by caregivers, including communication-rich environments, interactive play, modeling language, and reinforcement strategies to support language development).

3.4.2 Dependent Variable

The dependent variable was the appropriateness and effectiveness of interventions for speech and language delay. This refers to whether the child with a speech and language delay received timely, adequate, and contextually appropriate intervention, either through professional therapy, home-based support, or a combination of both. The dependent variable was operationalized through indicators such as improved expressive and receptive language skills, timely access to therapeutic support, and parental satisfaction with progress.

3.4.3 Intervening Variables

The intervening variables included low SES and educational level of the parents. These included: Socio-economic status (SES) of the household (measured through income level, housing quality, and access to basic services); Educational level of the parent or primary caregiver, and Availability of speech and language resources within the community (such as speech therapists, early childhood educators, and healthcare providers). These intervening variables were essential to consider, as they could either enhance or limit the effectiveness of parental knowledge and involvement in mitigating speech and language delay. For instance, a parent may be aware of speech therapy but unable to access services due to financial constraints or lack of facilities in their area.

3.5 Target Population

The target population for this study comprised all children aged between 3 to 5 years enrolled in two selected schools in Kawangware, Nairobi City County—Riruta HGM Special School and Dagoretti Muslim Primary School. These institutions were purposefully selected due to their inclusion of learners with special needs and mainstreamed early childhood learners, representing a diverse range of developmental profiles, including those with potential speech and language delays. The total population included all preschool learners within the specified age range attending these two institutions. From this population, learners were screened to identify those exhibiting characteristics of speech and language delay. Subsequently, the study focused on parents or guardians of 30 children who were confirmed to have speech and language delays. This group formed the core of the study, as parental factors were central to the research objectives. By selecting this population,

the study aimed to explore the home-based and parental influences on intervention outcomes for young children with speech and language difficulties in a low socio-economic urban setting.

3.6 Sampling Technique and Sample Size

3.6.1 Sampling Techniques

According to Mugenda (2003), sampling enables researchers to draw conclusions about a population based on data collected from a representative subset. In this study, purposive sampling was employed to select participants based on specific characteristics aligned with the research objectives. This technique was appropriate because the study specifically targeted parents of children aged 3–5 years who had been identified with speech and language delays. The purposive approach ensured that only participants with relevant experiences and knowledge were included, thereby enhancing the quality and relevance of the data collected. The two schools—Riruta HGM Special School and Dagoretti Muslim Primary School—were also selected purposively based on their diverse learner profiles, which included children with and without developmental delays. From a total population of 97 children aged 3 to 5 years enrolled across the two schools, screening was conducted using standard developmental checklists. Out of these, 30 children were identified with speech and language delay based on observable symptoms and screening criteria. Their 30 corresponding parents or guardians were then selected to participate in the study. The purposive sampling of both schools and participants allowed the researcher to focus specifically on individuals who could provide in-depth insights into the home-based and parental factors influencing intervention for speech and language delay.

3.6.2 Sample Size

The sample size in this study comprised of 30 children between 3-5 years with speech and language delay and their parents. The total sample comprised of 36 respondents.

Table 3.1 Sample Size

Categories of Sample Size	**Target Population**	**Sampled Size**
Parents	30	30
Children between 3-5 years with speech and language delay	30	30
Total	**60**	**60**

Source: *Researchers, 2024*

3.7 Research Instruments

According to Kothari (2004), research instruments were tools for measurement used by researchers to collect data. Guided interview guides and screening tools for children with speech and language delays were used as the key data collection tools.

3.7.1 Interview for Parents

An interview guide was used to collect qualitative data from parents of children identified with speech and language delays. This method was preferred over questionnaires because interviews allow for flexibility and provide the opportunity to probe and clarify responses, thus generating richer, more nuanced data (Creswell & Creswell, 2018). Given that some parents might have low literacy levels or limited experience with formal surveys, interviews were more appropriate for gathering authentic insights, as they enabled the researcher to explain questions and adapt them to the respondent's level of understanding. The interviews explored parental awareness of speech and language disorders, knowledge of available speech therapy services, and

involvement in home-based intervention practices. This tool also allowed the researcher to examine sociocultural factors, beliefs, and experiences that may influence parental decisions and actions regarding their child's language development (Johnson & Christensen, 2020). The data obtained from these interviews were instrumental in understanding the lived experiences of parents within a low socioeconomic context such as Kawangware, thus directly supporting the study objectives.

3.7.2 Screening for Child with Speech and Language Delays

To identify children with speech and language delays, the study employed the Preschool Language Scale, Fifth Edition (PLS-5), a widely recognized and standardized screening tool. This tool was adopted for use in this study due to its strong reliability and validity in assessing both receptive and expressive language skills in children aged from birth to 7 years and 11 months. The PLS-5 was administered in a child-friendly setting within the school to ensure comfort and cooperation, and the screening was done by the researcher, who was trained in child observation and communication development. The tool was useful in providing an objective baseline measure to confirm which children met the criteria for speech and language delay and were thus eligible for inclusion in the study. It also allowed for uniform assessment across all children, reducing bias and ensuring consistency in data collection. The adoption of a standardized tool enhanced the credibility and comparability of the screening results (Zimmerman, Steiner, & Pond, 2020).

3.8 Pilot Study

Before conducting the main study, a pilot study was carried out to pre-test the research instruments and identify any weaknesses in their structure, clarity, or administration. According to Drew, Hardman, and Hosp (2008), pilot studies are essential for refining data collection instruments and ensuring the researcher is well-acquainted with the tools and procedures. The pilot was conducted at Kawangware Primary School, which was selected due to its similarity in demographic and socioeconomic characteristics to the main study sites—Riruta HGM Special School and Kids Care Community School. The school had a diverse population of children aged between 3–5 years, fitting the study's target group. To screen the children during the pilot, the researcher used the Preschool Language Scale, Fifth Edition (PLS-5)—a standardized tool—to assess both receptive and expressive language abilities. Children showing signs of delayed speech and language development based on their scores were identified. From this screened group, 10 parents of speech and language delayed children were selected, and the interview guide was administered to them. The pilot enabled the researcher to evaluate the clarity, flow, and content relevance of the questions, ensuring that any ambiguities were corrected before the main data collection phase.

3.9 Validity and Reliability

3.9.1 Validity

Validity refers to the degree to which an instrument measures what it is intended to measure (Taherdoost, 2016). To ensure content and face validity, several strategies were employed. First, two expert supervisors from Kenyatta University with experience in

early childhood and special needs education reviewed the instruments for relevance, accuracy, and appropriateness to the research objectives. Additionally, the researcher engaged a qualified speech and language therapist to review the screening tool (PLS-5) to ensure that it was appropriate for the target age group and aligned with current developmental benchmarks. The feedback from these experts informed revisions that improved the coherence and validity of the instruments. Furthermore, the pilot study served as a practical check for construct validity, allowing the researcher to determine whether the items effectively captured parental awareness, knowledge, and practices related to speech and language delays. These combined steps ensured that the tools were valid representations of the study variables.

3.9.2 Reliability

Reliability refers to the consistency of an instrument in producing stable results over repeated trials under similar conditions (Orodho, 2004). To determine the reliability of the interview guide, the test-retest method was employed. During the pilot phase, the interview guide was administered to 10 parents whose children had been screened and identified with speech and language delays. After a three-week interval, the same guide was administered to the same respondents. The researcher then used Spearman's rank-order correlation coefficient to assess the consistency of responses between the two rounds. Spearman's rank correlation was chosen because the responses were largely ordinal in nature (e.g., Likert-type items assessing frequency or awareness levels). Each participant's responses were ranked in both tests, and the difference in ranks for each item was used to compute the correlation coefficient (ρ). A coefficient value close to +1.0 indicated high reliability, meaning that the instrument consistently elicited similar

responses over time. In this study, a coefficient of $\rho = 0.87$ was obtained, suggesting a high level of reliability and internal consistency of the interview guide. The findings confirmed that the instrument was dependable for use in the main research.

3.10 Data Collection Techniques

The data collection process for this study followed a structured and sequential approach designed to obtain in-depth information from parents and accurately assess the speech and language development of children aged 3–5 years. The researcher first liaised with school administrators at Riruta HGM Special School and Kids Care Community School to gain access to children and their parents. The process began with screening children using the Preschool Language Scale, Fifth Edition (PLS-5)—a standardized assessment tool developed to measure auditory comprehension (receptive language) and expressive communication (spoken language). The researcher administered the PLS-5 in a quiet, child-friendly space within the school, using a combination of toys, pictures, and verbal prompts as prescribed in the tool's manual. Each child was assessed individually, and their responses were scored according to PLS-5 guidelines. The results were used to identify children with speech and language delays who met the inclusion criteria for the study.

Following the screening, in-depth interviews were conducted with the parents of the identified children. This qualitative method was chosen over questionnaires to enable rich, detailed exploration of parental awareness, knowledge, and practices regarding speech and language delays. The interviews were semi-structured, guided by a predefined interview schedule, and conducted in either English or Kiswahili, depending on the

parent's language preference. The flexibility of interviews allowed the researcher to probe deeper into cultural beliefs, socioeconomic challenges, and parental engagement in language development activities. All interviews were audio-recorded with consent and securely stored for subsequent transcription and analysis. This combined approach provided a comprehensive dataset integrating both objective child assessment and subjective parental insight.

3.11 Data Analysis

Data analysis in this study incorporated both qualitative and quantitative methods in alignment with the mixed-methods research design and the specific research objectives. Since no questionnaires were used, all quantitative data were derived from the children's performance on the PLS-5 screening tool, while qualitative data came from the in-depth interviews with parents. This objective 1 was addressed using thematic analysis of interview transcripts. The researcher transcribed all interviews verbatim and then coded the data manually. Emergent codes were grouped into themes such as "early recognition," "misconceptions," and "sources of information." Themes were reviewed multiple times for consistency and relevance to the objective. The same thematic analysis method was applied to explore parents' understanding of available therapeutic services, including their awareness of speech therapy as a professional field, access barriers, and prior experiences or lack thereof. These responses were grouped under themes like "therapy access," "healthcare limitations," and "community resources." Parental practices aimed at addressing speech and language delays were identified from the interviews in objective 3.

Thematic analysis allowed the researcher to extract themes such as “home-based speech activities,” “use of storytelling,” and “engagement in play-based communication,” highlighting informal interventions. Mixed approach ensured that both measurable outcomes (child screening) and subjective insights (parental interviews) were meaningfully integrated to address the research objectives comprehensively.

3.12 Logistical and Ethical Considerations

3.12.1 Logistical Considerations

The researcher obtained an introduction letter from the School of graduate studies at Kenyatta University, which she then presented to the National Council for Science, Technology and Innovation (NACOSTI) in order to obtain a research authorization to conduct the study. Following the issuance of the permit the County Director for Nairobi City County issued a letter of support addressed to the two (2) primary schools as well as the Educational Assessment and Resource Centre.

3.12.2 Ethical Considerations

Bailey, Hennink, and Hunter (2011) emphasized that issues on ethics considered respondents’ conscious agreement, respondents' right to self-determination, respondents' harm reduction, as well as anonymity and privacy of the respondent. Permission was obtained from Kenyatta University ethical committee to observe ethical issues since the study involved human beings. Ethical considerations such as both anonymity and secrecy were taken into account when carrying out research. Participants were guaranteed that the information would be kept private in terms of confidentiality and would be used for research purposes only. To remain anonymous, participants were requested not to write

their names on search engines. All articles and information used were fully credited as citations and references to avoid plagiarism. Punctuality, courtesy, and decency were also respected.

Consent from relevant authorities was required prior to conducting the pilot study at Kawangware Primary School. In the event of a successful pilot study, the researcher visited the study sites of the Riruta HGM Special School and the Kids Care Community School to conduct the primary study with consent from the relevant authorities' permission. Respondents were assured that their responses would be kept confidential. The questionnaire was completed privately and sent directly to the researcher. They were also assured that the research results would be communicated to them once the study was completed.

CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents findings, interpretations and discussions based on the data provided by respondents in the aim of evaluating home factors for proper intervention of speech and language delay among children between 3-5 years in Kawangware area Nairobi City. The data was analysed, presented, interpreted and discussed guided by the following research objectives;

1. To examine parental awareness of speech and language disorders in Kawangware, Nairobi City County.
2. To determine parental knowledge of speech and language therapy available for children with speech and language delay in Kawangware, Nairobi City County.
3. To establish parent-implemented speech and language intervention measures for speech and language delay in Kawangware, Nairobi City County.

Data obtained from the field were analysed using descriptive statistics with the aid of the Statistical Package for Social Science (SPSS). Out of the sampled respondents, 28 parents translating to 84.4% response rate. Complete participation ensures that the sample is fully representative of the target population. A study by Hendra and Hill (2021) emphasizes the importance of representative sampling in research to ensure the generalizability of findings. A response rate of more than 80% maximizes the representativeness of the sample, enabling researchers to make more accurate inferences about the population as a whole (Table 4.1).

Table 4.1: Response Rate

Categories of Sample Size	Sampled size	Final sample	Percentage
Parents	30	28	93.3%
Children between 3-5 years	30	28	93.3%
Total	**66**	**56**	**84.8%**

Source: Researcher (2024)

4.2 Demographic Information

The demographic characteristics of the participants were analysed and discussed in terms of age, gender, grade, highest level of education. The data is as presented in Table 4.2.

Table 4.2: Demographic Information of the Children (3-5years) under study

Variable		Freq	%
Distribution of children by Age	2 years	1	3.6%
	3 years	8	28.6%
	4 years	7	25.0%
	5 years	12	42.9%
	Total	**28**	**100.0%**
Distribution of children by Gender	Male	17	60.7%
	Female	11	39.3%
	Total	**28**	**100.0%**

Findings in Table 4.2 show that the highest percentage, 42.9%, were 5 years old, followed by 28.6% who were 3 years old and 25% who were 4 years old. The predominance of 5year-olds in the sample is particularly noteworthy, as research indicates that language deficits become more evident by this age. Children from lower socioeconomic status (SES) backgrounds often experience insufficient cognitive stimulation, which exacerbates these deficits. Moreover, 60.7% were represented compared to female children (39.3%). This finding echoes Bishop's (2012) observations

that speech and language delays are more commonly reported in male children. The greater representation of male children with potential language delays in this study underscores the necessity for targeted awareness and intervention strategies among parents.

Table 4.3: Demographic Information of the Parents

Variable		Freq	%
Distribution of parents by gender	Male	9	32.1%
	Female	19	67.9%
	Total	**28**	**100.0%**
Distribution of parents by age bracket	Below 35yrs	3	10.7%
	35-40yrs	8	28.6%
	41-45yrs	7	25.0%
	46-50yrs	7	25.0%
	>50yrs	3	10.7%
	Total	**28**	**100.0%**
Distribution by highest level of education	Informal Education	6	21.4%
	Primary Education	8	28.6%
	Certificate/Diploma	10	35.7%
	First Degree and above	4	14.3%
	Total	**28**	**100.0%**
Distribution by current employment status	Salaried	4	14.3%
	Self-employed	7	25.0%
	Housewife	6	21.4%
	Retired	7	25.0%
	Student	4	14.3%
	Total	**28**	**100.0%**
Having other children apart from the screened	Yes	20	71.4%
	No	8	28.6%
	Total	**28**	**100.0%**

Source: Researcher (2024)

As shown in Table 4.3, a significantly higher percentage of female parents (67.9%) compared to male parents (32.1%). The dominance of female participants may suggest that mothers are often the primary caregivers, which is consistent with traditional gender roles in many cultures, where women typically assume responsibility for child-rearing.. This disparity indicates a potential area for further investigation, as the absence of male parental involvement could limit the effectiveness of family centered interventions.

The age distribution of parents shows a fairly even spread, with the highest concentration in the 35-40 years bracket (28.6%). Parents in this age bracket are likely to have established careers and social networks that can provide both support and resources for effective intervention strategies. However, the representation of younger parents (below 35 years) and older parents (above 50 years) at 10.7% each could indicate gaps in awareness and intervention strategies. The majority of parents (35.7%) have completed certificate or diploma education, with 14.3% attaining a first degree and above. Conversely, the significant percentage of parents with only primary education (28.6%) and informal education (21.4%) raises concerns about the potential lack of awareness regarding speech and language therapy options.

The diverse employment status of parents shows a considerable number of self-employed individuals (25.0%) and retirees (25.0%). This demographic aspect may have significant implications for the availability of time and resources for speech and language intervention. For instance, self-employed and retired parents may have more flexible schedules to attend therapy sessions or engage in home-based interventions. However, the presence of parents classified as housewives (21.4%) and students (14.3%) could

indicate variable levels of financial stability, which may impact their ability to access professional speech therapy services. The study found that a significant proportion of parents (71.4%) have other children apart from the screened child. This finding corroborates with the notion that parental experience with previous children can influence their awareness and understanding of developmental milestones.

4.2.1 Summary Analysis of the Speech and Language Screener

The Speech and Language Screener used in this study was adapted from existing early childhood communication screening tools commonly used in clinical and educational settings. Specifically, it was customized based on principles drawn from the Preschool Language Scale (PLS-5) and Kenyan early childhood developmental benchmarks to suit the cultural and linguistic context of Kawangware. The tool was modified to accommodate locally appropriate examples, language structures, and materials. A total of 28 children aged 3–5 years were screened using this tool. Each child was assessed individually in their preschool setting, with parental consent obtained in advance. The screening focused on early expressive and receptive language skills, articulation, memory, fluency, and voice as presented in table 4.4.

Table 4.4 Summary of Key Screening Results

Domain	Children with Difficulty (n)	% of Children (n=28)	Common Observations
Expressing personal info	7	25%	Could not state full name or age
Number concepts (counting)	6	21.4%	Struggled to count blocks or rote count
Understanding prepositions	9	32.1%	Confused "under," "on," or "behind"
Body part identification	5	17.9%	Missed key parts like knees, cheeks
Understanding senses	8	28.6%	Could not associate senses with correct organs
Listening comprehension	11	39.3%	Unable to recall characters or sequence events
Auditory memory (sentence)	10	35.7%	Difficulty repeating sentences
Expressive language (story)	13	46.4%	Could not construct 3 intelligible sentences
Articulation errors	10	35.7%	Omissions or substitutions (e.g., /r/, /s/)
Voice issues (e.g., hoarseness)	3	10.7%	Rough or nasal voice quality
Fluency (dysfluent speech)	2	7.1%	Mild stuttering noted

Findings in table 4.4 showed that while 39.3% of the children demonstrated poor listening comprehension and 46.4% struggled with expressive language, interviews showed that many parents did not recognize these signs as indicative of delay. Some parents assumed language issues were "normal" or would resolve "with age," highlighting a low to moderate level of awareness among parents in Kawangware. Only a few parents had previously sought professional opinions, suggesting that speech and language disorders are under-recognized at the household level.

Table 4.5: Status of Children's Speech and Language Skills

Speech and Language Skills	N	Mean	Std.	Rank
States both names correctly	28	1.43	.504	8
Tells how old she/he is	28	1.25	.441	15
Able to count blocks to five	28	1.61	.497	3
Able to show six coloured items	28	1.39	.497	12
Able to use correct prepositions	28	1.57	.504	6
Recognizes body parts Including Head, hands, legs, eyes, knees, back , kneck, shoulders etc	28	1.46	.508	10
Understands and knows the functions of all senses	28	1.25	.441	16
Correctly identified pictures of animals and where they live	28	1.57	.504	7
Correctly answered that they put on warm clothes when it is cold	28	1.39	.497	13
Good listening comprehension skills	28	1.50	.509	4
Good auditory memory for sentences	28	1.46	.508	11
Good use of intelligible sentences with verbs	28	1.61	.497	17
Has no grammatical mistakes encountered	28	1.25	.441	2
Effectively following directions	28	1.43	.504	9
Demonstrates spontaneous speech	28	2.79	.995	1
Good fluency	28	1.54	.508	5
Had no articulation errors	28	1.00	.000	18
Has good hearing abilities	28	1.36	.488	14
Valid N (listwise)	28			

Findings in Table 4.5 shows that articulation has the lowest mean score of 1.00 with a standard deviation of 0.000. This indicates that on average, children in the study sample exhibited articulation errors. Spontaneous speech had the highest mean score of 2.79 with a standard deviation of 0.995. This indicates that children in the sample demonstrated

relatively higher proficiency in spontaneous speech compared to other skills assessed. The findings reveal disparities in the speech and language skills of children in the Kawangware area. While children showed strength in spontaneous speech, indicated by the highest mean score, they exhibited articulation difficulties, as evidenced by the lowest mean score. The relatively higher proficiency in spontaneous speech may reflect the influence of early language exposure and socio-cultural factors within the home environment.

4.3 Parental Awareness of Speech and Language Disorders

The first objective of the study was to examine parental awareness of speech and language disorders in Kawangware, Nairobi City County. To analyse the insights gathered during the interviews regarding parents' awareness of Speech and Language Delay, thematic analysis was employed to identify recurring themes and patterns in the data. Parents were presented with a list and asked to identify the signs of SLD exhibited by their children.

Table 4.6: Aspects Speech and Language Delay as Reported by the Parents

Aspects Speech and Language Delay		Frequency	Percentage
Able to counts blocks to five	Yes	11	39.3%
	No	17	60.7%
	Total	28	100.0%
Did not babble by age of 15 months	Not sure	10	35.7%
	Yes	14	50.0%
	No	4	14.3%
	Total	28	100.0%
Did not talk by age 2 years	Not sure	10	37.0%
	Yes	13	48.1%
	No	4	14.8%
	Total	27	100.0%
Did not speak in short sentences by age 3 years	Not sure	9	33.3%
	Yes	13	48.1%
	No	5	18.5%
	Total	27	100.0%
Trouble following directions	Not sure	8	29.6%
	Yes	13	48.1%
	No	6	22.2%
	Total	27	100.0%
Problem with articulation and pronunciation	Not sure	5	18.5%
	Yes	17	63.0%
	No	5	18.5%
	Total	27	100.0%
Omitting words out of a sentence	Not sure	12	44.4%
	Yes	8	29.6%
	No	7	25.9%
	Total	27	100.0%

Table 4.6 presents aspects of speech and language delay as reported by parents: 39.3% of parents reported that their children were able to count blocks to five, while 60.7% reported that their children were not; 50.0% of parents indicated that their children did not babble by the age of 15 months, 35.7% were unsure, and 14.3% reported that their children did; and 48.1% of parents reported that their children did not talk by age 2 years, 37.0% were unsure, and 14.8% reported that their children did. Further findings revealed

that 48.1% of parents reported that their children did not speak in short sentences by age 3 years, 33.3% were unsure, and 18.5% reported that their children did; 48.1% of parents said that their children had trouble following directions; 63.0% of parents reported that their children had problems with articulation and pronunciation; and 29.6% of parents reported that their children omitted words out of a sentence. These findings indicate varying levels of parental awareness of speech and language delay in Kawangware, Nairobi City County. While some parents demonstrated awareness of certain aspects of SLD, such as articulation problems and difficulty following directions, there were uncertainties among others regarding their children's developmental milestones. These findings resonate with Rosenfeld and Teich (2021), who found that only 45% of parents in the U.S. could correctly identify early signs of SLD, indicating global gaps in parental awareness. Similarly, the uncertainty observed in the Kawangware study mirrors findings by Mostafa (2021) in Egypt, where over 60% of mothers could not distinguish between speech delay and hearing issues. These comparisons suggest that even in more resourced or different sociocultural contexts, parental awareness remains limited, though factors like education level and cultural beliefs may further influence awareness.

4.2.2 Thematic Analysis of Qualitative Data

Qualitative data from open-ended interview questions were analyzed using thematic analysis to extract recurring themes related to parental awareness of SLD. Six major themes emerged, supported by direct quotes from parents:

Theme 1: Recognition of Articulation and Pronunciation Difficulties

Many parents recognized specific speech difficulties such as unclear pronunciation or frustration during speech attempts.

> *"I noticed my child struggles to pronounce certain words clearly, and sometimes he seems frustrated when trying to communicate." – 1st parent, female*
> *"My son says 'tat' instead of 'cat' and often gives up trying when we don't understand him." – 7th parent, female*

Theme 2: Understanding of Developmental Delays in Language

Some parents demonstrated a clear conceptual understanding of what speech and language delay means.

> *"Speech and language delay means that my child is behind in developing the ability to speak and understand language compared to other children his age." – 2nd parent, female*
>
> *"He still cannot form full sentences like his peers, and that worries me." – 8th parent, male*

Theme 3: Attribution of Delay to Medical or Biological Causes

Several parents linked their child's delays to birth or medical histories, indicating a moderate level of awareness of potential causes.

> *"I think my child's disorder might be due to his premature birth, as the doctor mentioned that could be a factor in his development."* – 3rd parent, male
> *"He was born with low birth weight, and maybe that delayed his speech."* – 9th parent, female

Theme 4: Teacher-Driven Awareness and Identification

Some parents reported that teachers were the first to notice and raise concerns about their child's speech and language development.

> *"My child's teacher was the first to point out that he was having trouble following instructions and expressing himself."* – 4th parent, female

> *"It was during school that I was told he doesn't speak like the rest of his class."* – 10th parent, female

Theme 5: Limited Knowledge of Speech Therapy Services

Although some parents had heard of speech therapy, many lacked clear understanding of where or how to access it.

> *"Yes, I've heard of speech therapy, but I'm not sure how it works or where to find it."* – 5th parent, female

> *"I know there's a hospital nearby that offers speech therapy, but I haven't visited it yet."* – 6th parent, male

> *"We are not told much about where to go unless we ask."* – 11th parent, female

Theme 6: Uncertainty and Lack of Awareness of Milestones

A significant number of parents showed uncertainty about developmental milestones, often answering "not sure" in both interviews and questionnaires.

"I'm not sure when exactly kids are supposed to start talking. I thought it differs with each child." – 12th parent, male

"I never really thought it was a problem until someone else mentioned it." – 13th parent, female

These findings reveal a mixed level of awareness among parents in Kawangware. The qualitative themes further reinforce these insights. While some parents demonstrated clear understanding of SLD and linked delays to medical causes like premature birth, many relied on teachers for identification or expressed uncertainty about developmental norms. This aligns with the findings of Little et al. (2023) in the UK, who found that lower-income parents were less confident in recognizing SLD. In Kenya, Owino et al. (2022) similarly reported that only 25% of parents recognized speech-language delays, while Asamba and Karia (2025) noted that although 75% of caregivers noticed speech delays, only 40% linked them to therapy. These studies support the current findings that highlight both recognition of symptoms and a lack of linkage to appropriate interventions. Additionally, Aftab et al. (2025) showed that awareness levels are higher among more educated mothers, an insight echoed in this study where articulation was better recognized than more subtle signs like word omission. Overall, the findings confirm that while some parental awareness exists in Kawangware, it is fragmented and often dependent on external cues such as teacher input, underlining the need for targeted community education and accessible information about early developmental milestones.

4.4 Parental Knowledge of Speech and Language Therapy Available

The second objective of the study was to determine parental knowledge of speech and language therapy available for children with speech and language delay in Kawangware, Nairobi City County. To answer this objective, the participants were asked to identify whether they had ever heard of speech therapy. Further, parents were asked to state if they knew any hospital/institution within your locality that offers speech and language therapy services. Results were analysed using frequency and percentages and the findings were as presented in Table 4.7.

Table 4.7. Parental Knowledge Available Speech and Language Therapy

Response		Frequency	Percentage
Heard of Speech Therapy	Yes	20	71.4%
	No	8	28.6%
	Total	**28**	**100.0%**
Aware of Local Services	Yes	12	42.9%
	No	16	57.1%
	Total	**28**	**100.0%**

From Table 4.7, it is evident that 71.4% of the sampled parents had heard of speech therapy, while 28.6% had not. This indicates a relatively high level of awareness among parents regarding the existence of speech therapy as a treatment option for speech and language delay. However, only 42.9% of parents were aware of local services offering speech and language therapy, while the majority (57.1%) were not. The findings of the study reflect the importance of parental awareness and understanding of speech and language delay, as well as available intervention services. This pattern is consistent with findings from several other studies. For instance, Obunge et al. (2022), in a mixed-

methods study in Mwanza, Tanzania, similarly found that fewer than half of the parents surveyed knew where to seek therapy. Many held misconceptions that speech and language disorders were either rare or untreatable, which significantly hindered access to services. Like the present study, their participants demonstrated basic awareness of therapy as a concept but lacked the specific, actionable knowledge needed to initiate intervention. Mrema et al. (2023) also reported limited formal knowledge among parents in Northern Tanzania and South Africa regarding the roles of speech-language pathologists (SLPs) and the procedures for accessing therapy. In their study, parents largely relied on informal community advice—a finding echoed in the current study, where parents mentioned learning about therapy from teachers, nurses, or neighbors. This reliance on informal networks, while helpful, underscores a systemic gap in formal information dissemination, particularly in informal settlements like Kawangware.

4.4.1 Thematic Analysis of Qualitative Data

Based on open-ended responses, five major themes emerged that reflect the depth and nature of parental knowledge of speech and language therapy.

Theme 7: General Awareness of Speech Therapy as a Concept

Some parents demonstrated a basic understanding of speech therapy and its purpose, recognizing it as a professional service aimed at supporting children with communication challenges.

> *"Speech therapy is where children get help to talk better. They help with pronunciation and communication."* – Parent 1, female

"It is something that helps children speak clearly. I learned about it from my sister who is a teacher." – Parent 2, male

This theme was consistent with the quantitative finding that a majority (71.4%) had heard of speech therapy. However, their understanding of what it entails varied significantly.

Theme 8: Limited Understanding of Therapeutic Process

Many parents lacked detailed knowledge of what speech therapy involves, how it is conducted, or who delivers it. Some confused it with general schooling or believed it was only for children with hearing problems.

"I have heard of it, but I don't really know how it works or what they do." – Parent 3, female

"Isn't it something for deaf children only?" – Parent 4, male

This suggests surface-level familiarity without a functional understanding of therapy sessions, assessments, or intervention techniques.

Theme 9: Limited Awareness of Local Service Providers

Despite having heard of speech therapy, less than half of the parents (42.9%) could identify a local service provider. This theme captures the gap between general awareness and actionable knowledge.

"I think there's a hospital somewhere in town, but I don't know if they have speech therapy." – Parent 5, female

"No, I don't know any place near us that offers that service." – Parent 6, male

Others mentioned relying on word of mouth from teachers or neighbors for information.

Theme 10: Knowledge of Referral Sources and Triggers

Some parents gained knowledge of speech therapy through interactions with teachers, doctors, or other parents who noticed their child's communication delays and recommended further help.

> *"My child's teacher told me that he might need therapy and that I should look into it."* – Parent 7, female
>
> *"I first heard of it when a nurse mentioned that delayed speech can be treated."* – Parent 8, female

This shows that external actors (especially teachers) play a significant role in raising parental awareness and influencing help-seeking behavior.

Theme 11: Misconceptions and Mixed Beliefs

Several parents expressed inaccurate or conflicting ideas about the causes of speech delay and the role of therapy, which influenced their perception of its necessity.

> *"Maybe the delay is just because we speak different languages at home, so he is just confused."* – Parent 9, male
>
> *"I thought boys speak later than girls, so I didn't think therapy was needed."* – Parent 10, female

These beliefs, while understandable, reflect misconceptions that can delay timely intervention and reduce motivation to seek professional help.

The thematic analysis of qualitative data in this study further illuminated the nature and depth of parental knowledge. Many parents demonstrated a basic understanding of what speech therapy entails, describing it as a service that helps children "talk better" or

“pronounce words clearly.” However, the level of understanding varied greatly, with several parents admitting they did not know how therapy worked or believed it was only for children with hearing impairments. These misconceptions are problematic, as they can delay timely intervention or discourage parents from seeking help altogether.

Similar misconceptions were reported by Owino et al. (2022), who found that while parents in Kisumu were fairly aware of hearing impairments, only a minority could identify signs of speech-language delay or were familiar with available intervention options. Furthermore, only 10% had actually referred their children for evaluation, suggesting that awareness does not necessarily translate into action. This aligns with findings in Kawangware, where even those aware of speech therapy often lacked a clear pathway to access services.

The current study also found that parents often learned about their child’s communication difficulties through external sources such as teachers, healthcare providers, or other parents. This reflects the critical role of professionals and community members in influencing parental awareness and help-seeking behaviour. Klatte et al. (2024) emphasized this in their study, which identified “knowing what to expect” and “trusting the therapist” as key parental needs during collaboration with SLPs. Their findings support the idea that parental knowledge is shaped not only by individual experience but also by the quality of communication with professionals.

Moreover, Jensen de López et al. (2021) conducted a multi-country study that revealed a recurring global issue: while parents often understand the purpose of speech and language

services, they encounter difficulties navigating complex healthcare systems. Despite being situated in countries with universal healthcare, these parents struggled with unclear treatment pathways and bureaucratic barriers—challenges that are likely exacerbated in informal urban settlements like Kawangware, where infrastructure and access to information are far more constrained.

Another aspect worth noting from the present study is the impact of sociocultural beliefs on parental perceptions. Some parents attributed speech delay to multilingual exposure at home, while others assumed boys naturally speak later than girls and therefore did not require therapy. These beliefs, although common, are inaccurate and can impede early intervention. Mrema et al. (2023) similarly found that such misconceptions were prevalent and often informed by cultural norms rather than professional guidance.

In addition to cultural beliefs, logistical constraints also play a role in shaping parental knowledge. Asamba and Karia (2025), in their survey of caregivers, found that while 75% had noticed speech delays in their children, only 40% were aware that therapy services even existed. Parents frequently cited lack of information and cost as primary barriers. These findings support the current study's conclusion that awareness of a child's condition does not necessarily equate to understanding available solutions, particularly in low-resource contexts.

While the current study did not specifically explore alternative service delivery models, comparisons with international literature suggest potential solutions. For example, Sikka et al. (2022) demonstrated that Indian parents found teletherapy during COVID-19 both

affordable and effective, with over 90% expressing satisfaction. This suggests that alternative delivery methods such as teletherapy could be considered in urban informal settlements, provided digital access is feasible and culturally appropriate.

4.5 Parent-implemented Speech and Language Intervention Measures for Speech and Language Delay

The third objective of the study sought to establish parent-implemented speech and language intervention measures for speech and language delay in Kawangware, Nairobi City County. To achieve this objective analysis was conducted to provide a more comprehensive understanding of mean, and standard deviation.

Table 4.8: Mean and Standard Deviation for Parent-implemented Speech and Language Intervention Measures

Parent-Implemented interventions	N	Mean	Std. Deviation
Daily Reading and Conversation	28	2.68	1.090
Interactive Play	28	2.71	.976
Visual Aids and Picture Cards	28	3.18	.772
Modeling and Reinforcement	28	3.04	.838
Structured Language Practice	28	2.79	.957

Data analysis as presented in table 4.8 revealed both positive and negative aspects of the strategies employed. Both quantitative and qualitative data were analysed to determine how parents are engaging in intervention, the consistency of those practices, and their perceived effectiveness. The quantitative findings revealed that among the various intervention strategies evaluated, the use of visual aids and picture cards had the highest

mean score (3.18) and the lowest standard deviation (0.772). This indicates that not only was it widely adopted by parents, but it was also perceived as consistently effective. This aligns with the findings by Lai et al. (2025) in China, who identified the use of visual supports and reading materials in a parent-implemented intervention program as a key component for enhancing language development. Their multi-phase intervention involved tools like online reading programs and video feedback therapy, which included the use of visual stimuli to prompt verbal interaction. The effectiveness and consistency observed in Kawangware reinforce Lai et al.'s conclusion that visual tools offer accessible and engaging avenues for parental participation in therapy, particularly in early developmental stages.

Modeling and reinforcement, another technique assessed in the current study, had a strong mean score of 3.04, though its standard deviation of 0.838 suggests some variability in its application or success. This is consistent with Hatherly et al. (2025), who trained UK-based parents in responsive parenting strategies such as modeling, turn-taking, and focused stimulation. Their study recorded significant improvements in children's expressive vocabulary and parent-child interactions. However, unlike the structured and professionally supported UK setting, parents in Kawangware may have lacked consistent coaching or feedback, which may explain the variability in outcomes.

Interactive play and structured language practice were moderately effective (means of 2.71 and 2.79, respectively), but with slightly higher variability (standard deviations of 0.976 and 0.957). These findings resonate with the results from Sawyer et al. (2025), whose Parents Plus intervention emphasized structured activities such as focused

stimulation and play-based routines. Parents in that study reported high satisfaction and demonstrated measurable gains in children's language skills. Although similar strategies were observed in Kawangware, the absence of consistent professional guidance or structured programs might have limited the overall success and uniformity of outcomes.

Daily reading and conversation was also rated moderately (mean 2.68), with the highest variability (standard deviation of 1.090). This may reflect differences in literacy levels, availability of reading materials, or time constraints among parents in informal settlements. Still, the strategy aligns with global best practices for early language intervention. In the current study's qualitative data, many parents reported integrating reading into daily routines, a finding echoed in Lai et al. (2025) and Hatherly et al. (2025), who emphasized the role of parent-child reading in vocabulary growth and parent responsiveness. However, the inconsistency in outcomes in Kawangware may be linked to unequal access to training, as highlighted in the qualitative themes.

4.5.1 Qualitative Analysis: Parent-Implemented speech and Language Intervention Measures

To enhance our understanding of the strategies employed by parents, interviews were conducted to gather insights on their experiences with speech and language intervention measures.

Theme 12: Special Training in Speech and Language Delay

> *"Yes, I attended a workshop on speech and language development organized by the local community centre. It was really helpful in understanding how I can*

support my child's communication skills at home." (Parent 1-Received Special Training).

"No, I haven't received any special training, but I've been reading books and articles online to learn how to help my child. It's been challenging, but I'm doing my best." (Parent 2 without special training).

The responses varied significantly regarding whether parents had received special training in speech and language delay. Approximately 42.9% of the parents reported having undergone specialized training, while the remaining 57.1% had not. This divergence in experiences highlights the heterogeneous nature of parental backgrounds and resources available within the community. It suggests that while some parents may have access to formal training opportunities, others may rely on alternative means to support their children's speech and language development.

Theme 13: Training Source

"I learned a lot from the workshop I attended at the community centre. They had experts who shared practical tips and strategies for improving speech and language skills in children. It was a great learning experience." (Parent 3-trained in a workshop).

"My child's speech therapist has been instrumental in providing me with guidance and strategies to use at home. She's been very supportive throughout the process." (Parent 4, individual professional).

For parents who reported receiving special training, the sources varied widely. Some mentioned attending workshops or seminars organized by local community centres or

educational institutions. Others cited individual professionals, such as speech therapists or educators, as the providers of their training. This diversity in training sources underscores the importance of collaborative efforts among various stakeholders, including healthcare professionals, educators, and community organizations, to disseminate knowledge and skills related to speech and language intervention effectively.

Theme 14: Strategies for Improving Communication Skills

> *"We make it a point to read books together every night before bedtime. It's not only a bonding activity but also helps improve my child's vocabulary and language skills."* (Parent 5-Engaging in Daily Activities)

> *"We play word games like 'I Spy' or 'Simon Says' to make learning fun for my child. It keeps him engaged while also targeting his speech and language goals."* (Parent 6-Specific Exercises or Games).

Parents described a range of strategies they employed to enhance their child's communication skills. These strategies encompassed both formal and informal approaches, reflecting the resourcefulness and adaptability of parents in addressing their children's needs. Examples of strategies included engaging in daily activities that promote language development, such as reading books, singing songs, or engaging in interactive play. Additionally, some parents mentioned specific exercises or games designed to target speech and language goals, demonstrating a proactive approach to supporting their child's communication development.

Theme 15: Learning Sources for Intervention Strategies

> *"The speech therapist provided me with a list of activities and resources to use at home. It's been invaluable in guiding our intervention efforts and tracking my child's progress." (Parent 7-Professional Guidance).*

> *"I've been reading books and watching online videos to learn more about speech and language development. It's been a journey of self-education, but I feel more empowered to help my child now."* (Parent 8-Self-Directed Learning).

Parents provided insights into where they acquired the intervention strategies used with their children. Responses indicated a diverse array of learning sources, including professional guidance from speech therapists or educators, self-directed learning through online resources or books, and participation in workshops or training sessions. This multiplicity of learning sources reflects the dynamic nature of parental education and highlights the importance of accessible and diverse avenues for acquiring knowledge and skills related to speech and language intervention.

Theme 16: Materials and Equipment

Specific Tools:

> *"We have picture cards and a speech therapy app on our tablet that we use during our practice sessions. It's been really helpful in keeping my child engaged and motivated."* (Parent 9, female)

Everyday Household Items:

"We use everyday items like pots and pans to create sound games that encourage my child to vocalize. It's amazing how you can turn simple household items into learning tools." (Parent 10, female).

Regarding materials and equipment used to facilitate intervention strategies, responses varied depending on the resources available to parents. Some mentioned having specific tools such as picture cards, educational toys, or speech therapy apps, while others relied on more traditional resources like books or everyday household items. The presence of materials and equipment indicates a proactive approach to creating a conducive learning environment for speech and language development within the home setting. It also underscores the role of accessible resources in supporting parental efforts to implement effective intervention strategies.

Theme 17: Additional Information for Improving Communication Practical Tips:

"I've found that giving my child choices and encouraging him to communicate his preferences has helped improve his language skills. It's all about finding opportunities for him to practice." (Parent 11, female).

Advocacy for Awareness:

"I think there should be more awareness about speech and language delay in our community. By sharing our experiences and knowledge, we can support each other and ensure that all children receive the help they need." (Parent 12, female).

Parents were further asked to show how they would you rate the success of the strategies that they had been using. Figure 4.2 shows data on the parents' rating on the success of the strategies being used. From the interviews, it emerged that only 42.9% of parents had received any special training, with the rest relying on self-directed learning or informal advice. Parents who attended workshops or worked with individual professionals reported more confidence and a wider repertoire of strategies. These findings underscore the disparity in parental preparedness—a contrast to the structured interventions noted in Lai et al. (2025) and Sawyer et al. (2025), where parents underwent formal, continuous training and feedback cycles. Additionally, the source of learning played a significant role in shaping intervention quality. Some parents credited speech therapists or workshops with providing effective tools, while others relied on online videos or books, reflecting a need for more accessible and culturally tailored training content. The diversity in learning sources is consistent with the mixed approaches observed in both Lai et al. and Sawyer et al.'s studies, though their contexts offered better infrastructure to support on-going learning.

Another important aspect revealed in the qualitative data was the variety of strategies parents adopted. These ranged from structured activities like picture card use to informal approaches such as singing or using household items for play. This mirrors the findings from Asamba and Karia (2025), who observed a wide range of home-based strategies in the same region. However, while their study noted strong parental involvement, it did not connect specific strategies to measurable child outcomes. The present study goes further in suggesting that strategy effectiveness varies depending on consistency of application and access to training. A unique contribution of the current study lies in capturing the

materials and resources used at home. Some parents utilized speech therapy apps and educational toys, while others innovatively repurposed household items such as pots and pans for sound games. This illustrates the creativity and adaptability of parents in low-resource settings, reflecting similar findings by Lai et al. (2025), who emphasized that suitable intervention environments and tools—even if improvised—are critical for success. However, the gap in professional guidance continues to hinder the effectiveness of such efforts.

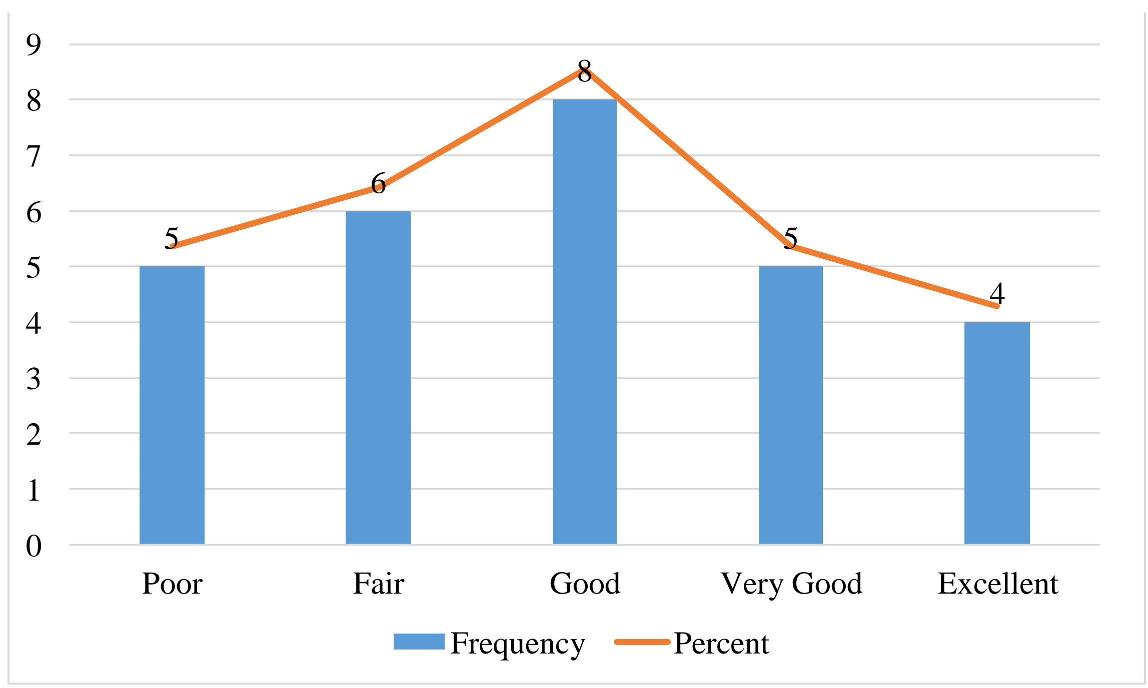


Figure 4.1: Parents' Rating on the Success of the Strategies being Used

The data presented in Table 4.1 illustrates parents' ratings of the success of the intervention strategies being used. The majority of parents reported positive outcomes, with 42.9% rating the strategies as good or very good, and 14.3% rating them as excellent. However, a notable proportion of parents (17.9%) rated the strategies as fair or poor, indicating room for improvement. Parental perceptions of success further highlight

the mixed outcomes. As indicated in Figure 4.2, while 57.2% of parents rated their strategies as good, very good, or excellent, 17.9% considered them fair or poor. These findings suggest that although many parents observe progress, a significant portion remain unsure or dissatisfied, likely due to inconsistent results or lack of clear milestones. This again supports the findings by Sawyer et al. (2025), who stressed the need for structured coaching to sustain parental motivation and ensure consistent child outcomes.

Table 4.9: Parents' Feeling about the Importance of Good Communication Skills for Children

Importance of good communication skills	Frequency	Percent
Not Important	4	14.3%
Less Important	4	14.3%
Average	8	28.6%
Important	8	28.5%
Very Important	4	14.3%
Total	**28**	**100.0%**

From Table 4.9, it is evident that parents hold varying opinions regarding the significance of good communication skills for children. As shown in Table 4.9, while over half of the parents recognized the importance or high importance of communication skills, a notable portion (28.6%) rated them as average or less. This points to a potential awareness gap that could affect intervention urgency. Parental beliefs, as shaped by cultural and contextual factors, are a key determinant of engagement in intervention, as reflected in Bronfenbrenner's Bioecological Model, which informed Asamba and Karia's (2025) study in the same community.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses summary of the study in relation to the objectives, general conclusions, recommendations to different stakeholders and also suggestions for further research.

5.2 Summary of the Findings

The analysis revealed varying levels of parental awareness regarding speech and language delay. Some parents were able to identify signs such as articulation problems, difficulty following directions, and limited sentence use as indicators of delay. However, a considerable number expressed uncertainty about developmental milestones, such as expected age for babbling or forming sentences. Qualitative responses provided deeper insight into parental perceptions. While some parents accurately recognized signs of speech and language delay, others demonstrated misconceptions or lack of clarity, often attributing delays to premature birth, gender differences, or language confusion at home. Thematic analysis identified recurring themes, including: Recognition of delayed speech milestones, Concerns about articulation, Attribution of delays to birth or environmental factors, and Uncertainty about typical development.

Quantitative findings showed that 71.4% of parents had heard of speech therapy, indicating moderate general awareness. However, only 42.9% were aware of specific local services offering speech and language therapy. This suggests that while parents may recognize the term “speech therapy,” their functional knowledge—how to access or

utilize services—is limited. Thematic analysis revealed that: some parents had only superficial knowledge of speech therapy, others were uncertain about where to find services or how therapy works, and knowledge was often gained through informal sources such as other parents or healthcare workers. These findings underscore a disconnect between awareness and accessibility, emphasizing the need for targeted informational campaigns and referral systems to support timely intervention.

Although this objective was not addressed directly through structured questions, qualitative responses revealed that parental involvement is a key factor in supporting children with speech and language delays. Parents showed interest and concern about their children's development and expressed a willingness to seek help, even if they were unsure of how to proceed. Some parents reported engaging in supportive activities such as: repeating words to children, Encouraging conversation at home, and Seeking informal advice from peers or healthcare professionals. These behaviors suggest a readiness to engage in intervention, provided parents are guided and empowered with the right knowledge and tools.

5.3 Conclusions

From the findings, the study highlights the need for increased efforts to raise parental awareness of speech and language delay and available intervention services in Kawangware, Nairobi City County. In conclusion, some parents demonstrated awareness of certain aspects of speech and language disorders; however, many were uncertain or lacked understanding, highlighting a need for targeted education and support services.

The findings reveal disparities in the speech and language skills of children in the Kawangware area. Addressing these diverse needs requires a multifaceted approach that considers socio-economic factors, parental involvement, and community engagement. Disparities in access to formal training and resources underscore the need for targeted education and support programs tailored to the diverse socioeconomic context of Kawangware. Collaborative partnerships among healthcare professionals, educators, and community organizations are essential for disseminating knowledge and skills effectively and addressing barriers to access.

It can be concluded that parent-implemented speech and language intervention measures play a crucial role in improving communication skills among children with speech and language delay. Therefore, it is recommended that future intervention efforts in the study area prioritize parental training and support to enhance the effectiveness of speech and language interventions. The study concludes that there was a diverse range of strategies employed by parents, highlighting both formal and informal approaches to support their child's communication development. Despite variations in access to specialized training and resources, parents demonstrated a proactive commitment to enhancing their child's communication skills. Additionally, collaboration between professionals and parents should be encouraged to ensure comprehensive and holistic support for children with speech and language delay in Kawangware, Nairobi City County.

5.4 Recommendations

1. Based on the study findings, several recommendations are proposed to strengthen the role of parents in the appropriate intervention of speech and language delay among children aged 3–5 years in Kawangware, Nairobi City County. These recommendations are linked directly to the three research objectives and grounded in the thematic findings from the participants.
2. The study found varied and often limited awareness of speech and language disorders among parents. Misconceptions and lack of clarity about typical developmental milestones were common. It is therefore recommended that community sensitization campaigns and parent education forums be developed in collaboration with local health centres, early childhood education providers, and community-based organizations.
3. The findings showed that although 71.4% of parents had heard of speech therapy, only 42.9% were aware of local services. Furthermore, detailed understanding of how therapy works and how to access it was lacking. To address this gap: Health professionals and early childhood development (ECD) centres within the locality should take an active role in informing parents about existing speech and language therapy services. Simple referral and information pathways should be developed—such as posters, flyers, or parent meetings—to help caregivers locate and access relevant services.
4. Parents in the study demonstrated a willingness to support their children but lacked formal training. Many relied on informal strategies, often without guidance. It is recommended that: Workshops and structured training sessions be organized at the

community level, facilitated by local speech therapists or trained ECD practitioners, to equip parents with practical tools and methods.

5. The findings emphasized that parents often operate in isolation when attempting to address their child's communication challenges. To strengthen support systems: Local healthcare centres and ECD facilities should build structured referral systems that link concerned parents with available speech and language therapy services.
6. Given that many parents were unfamiliar with the intervention process and local services, it is recommended that: Parents be encouraged to seek accurate information from trusted sources, such as healthcare professionals, ECD teachers, and credible online platforms. Self-education and proactive involvement be promoted as part of a long-term solution to support their children's speech and language development.

5.5 Recommendations for Further Research

i. Conduct further research to explore the long-term impact of parent-implemented therapies on children's language outcomes in the local context. This research should consider the socioeconomic context, cultural diversity, and effectiveness of different intervention approaches.
ii. Conduct longitudinal studies to assess the long-term impact of parental awareness on the developmental outcomes of children with speech and language delays.
iii. Explore the effectiveness of different educational interventions in increasing parental awareness and understanding of speech and language delay.

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APPENDICES

APPENDIX 1: SPEECH AND LANGUAGE SCREENER

Child's Name: ___________ Age: ____________ Gender: ________
School: _____________ Class: ____________
Date: ______________

Part 1.LANGUAGE	**Check**	
one *A. Personal information*	*Correct*	*Incorrect*
1. States both names	☐	☐
2.Tells how old she/he is	☐	☐
B. Number concepts		
3.Can rote count to ten	☐	☐
4.Able to counts blocks to five	☐	☐
C. Colours		
5.Show six coloured items.(passing criteria; points to 3 correct)	☐	☐
D. Prepositions		

Model using a table, bucket and ball and ask; Where is the ball? If incorrect ,ask learner to place in that position
6.In
7.Under
8.On
9.behind

Correct answers for on __ under___ behind ____	☐	☐
E. Can recognize body parts.(passing criteria points to six or more correct		

10.Head hands legs eyes knees back tummy cheeks kneck shoulders

Total correct ___ ☐ ☐

F. Understands senses. Read sentences for child

11. Eyes are for ☐ ☐

12 Nose is for ☐ ☐

13 Ears are for ☐ ☐

G. Categories (Use pictures)

14.Which ones are animals ☐ ☐

15.Where is the food ☐ ☐

H. Questions

16.Which one uses the sky? ☐ ☐

17.What animals live in water? ☐ ☒

18.What animals are dangerous? ☐ ☒

19.What do you do when hungry? ☐ ☐

20.What do you do when its cold? ☐ ☐

21 When sleepy you? ☐ ☐

I. Listening comprehension. Read "One day an old woman was plucking apples from a tree. She was using on a ladder. She felt something cold on her neck .She Jumped off the ladder and screamed for help".

22. Who was plucking apples? ☐ ☐

23. How did she reach the apples? ☐ ☐

24.What happened at the end? ☐ ☐

☐ No known issue ☐ Suspect issues ☐History of hearing problems

Additional remarks

There are no abnormalities in speech or language ☐ Observe further☐

J. Auditory memory for sentences. Repeat after me

25.Run…jump…sit ☐ ☐

26. Cats are good ☐ ☐

27.She loves eating mangoes ☐ ☐

28. Daddy ran after the chicken ☐ ☐

K. Expressive language sample. Give sequencing pictures cards and point to each picture. Record responses .

Give credit on use of 3 intelligible sentences with verbs. .☐ ☐ *L. syntax.*
29. Note any grammatical mistakes encountered ______

M. Following directions

29.Clap hands. Put your hands at the back of your head. Point at your nose. ☐ ☐

N. Articulation. Record all sound errors

Spontaneous speech

☐ Clear ☐ not clear ☐ clear with careful listening☐ not enough said to judge

Check oral motor functioning if several errors are noted

30.Fluency

☐Fluent ☐ Dysfluent

31.Voice

☐Adequate ☐ Not adequate(describe quality)

31. Hearing

Administered in (Language) ________________________________

Comments____
__
____
__ ______

APPENDIX 2: CONSENT TO PARTICIPATE IN RESEARCH STUDY

Hello. My name is Francine Asamba. I am a Master's student at Kenyatta University. I am conducting a survey to evaluate home-factors for appropriate intervention of speech and language delay among children between the ages of 3– 5, I will, therefore, be requesting for your views regarding the following issues:

a) Awareness of speech and language delay.
b) Awareness of speech and language therapy
c) Parent implemented speech and language intervention measures for speech and language delay.

1. I certify that I have read and acknowledge the fact sheet on the topic of the study above and have had the chance to ask questions that have been fully answered.
2. Understand that my participation is optional and that i am free to take a break at any time without affecting my medical care or legal rights.
3. I certify that portions of my child's medical records may be viewed by responsible persons when i participate in this study.

I consent to take part in the above study.

....	....	....
Parent/ Participant	Signature	Date

....	....	....
Researcher	Signature	Date

APPENDIX 3: PARENTS' INTERVIEW SCHEDULE

This questionnaire seeks information about the **evaluation of home-factors for the appropriate intervention of speech and language delays among children between 0-5 years who are speech and language delayed.** *Please be open and answer all questions correctly. Note that the answers you provide here will **NOT** be used against you.*

1. Could you please tell me about your gender?
2. How would you describe your age range?
3. What is your highest level of education, and how has it influenced your approach to your child's development?
4. Can you describe your current employment status and how it may impact your ability to engage in your child's interventions?
5. When was your child born?
6. Do you have other children? If so, could you share how many and describe how they interact with your child?
7. In your view, what do you think may be contributing to your child's speech and language delay?
8. How would you describe what speech and language delay means to you?
9. What are some of the reasons you believe might be affecting your child's speech and language development?
10. Can you tell me about when and how you first realized there could be a delay in your child's speech and language skills?
11. Could you share your thoughts on speech therapy? How familiar are you with it?
12. Are you aware of any hospitals or institutions in your area that offer speech and language therapy services? If so, could you tell me more about these services?
13. What signs or behaviours have you noticed in your child that might indicate speech and language delay?

14. Have you received any training or guidance in managing speech and language delay in children? If so, could you describe this experience?
15. What specific approaches or strategies have you tried to support your child's communication skills? How have these worked for you?
16. Could you tell me about how you learned about these strategies?
17. How would you describe the effectiveness of the methods you've used to support your child's communication?
18. Are there any materials or tools you use to help your child's communication development? What has your experience been with these?
19. How important do you think communication skills are for children in this age range? Could you tell me more about your views on this?
20. Is there anything else you would like to share that you feel could help improve support for children with speech and language delays?

APPENDIX 4: RESEARCH PERMIT FROM GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E55/34059/2017

DATE: 14th May, 2024

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR FRANCINE ASAMBA – REG. NO. E55/34059/2017

I write to introduce Francine Asamba who is a Postgraduate Student of this University. The student is registered for M.Ed degree programme in the Department of Early Childhood Studies & Special Needs Education.

Francine intends to conduct research for a M.Ed Project Proposal entitled, "Evaluation of Home Factors for Intervention of Speech and Language Delay among Children Aged 3-5 Years in Kawangware, Nairobi City County, Kenya."

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

APPENDIX 5: APPROVAL FROM GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 14th May, 2024

TO: Francine Asamba
C/o Early Childhood Studies &
Special Needs Education Dept.

REF: E55/34059/2017

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

We acknowledge receipt of your revised Research Proposal as per our recommendations raised by the Graduate School Board of 11th April, 2024 entitled **"Evaluation of Home Factors for Intervention of Speech and Language Delay among Children Aged 3-5 Years in Kawangware, Nairobi City County, Kenya."**

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

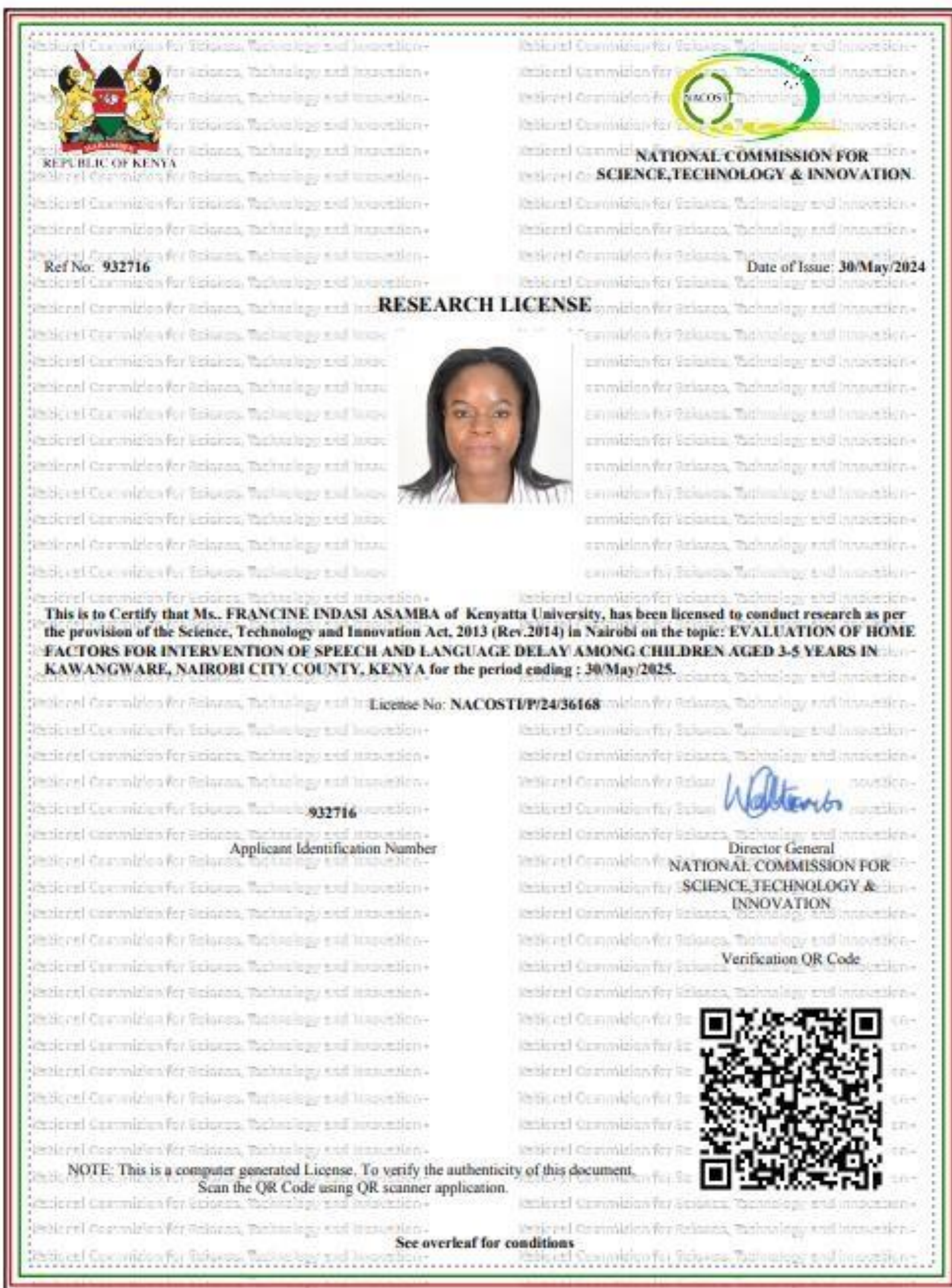
ELIJAH MUTUA
FOR: DEAN, GRADUATE SCHOOL

C.c. Chairman, Department of Early Childhood Studies & Special Needs Education

Supervisors:

1. Dr. Mathew Karia
   C/o Department of Early Childhood Studies &
   Special Needs Education
   Kenyatta University

APPENDIX 6: NACOSTI PERMIT



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **932716**

Date of Issue: **30/May/2024**

RESEARCH LICENSE

This is to Certify that Ms.. FRANCINE INDASI ASAMBA of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EVALUATION OF HOME FACTORS FOR INTERVENTION OF SPEECH AND LANGUAGE DELAY AMONG CHILDREN AGED 3-5 YEARS IN KAWANGWARE, NAIROBI CITY COUNTY, KENYA for the period ending : 30/May/2025.

License No: **NACOSTI/P/24/36168**

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Applicant Identification Number

Director General

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

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2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
   i. Endanger national security
   ii. Adversely affect the lives of Kenyans
   iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
   iv. Result in exploitation of intellectual property rights of communities in Kenya
   v. Adversely affect the environment
   vi. Adversely affect the rights of communities
   vii. Endanger public safety and national cohesion
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15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke