

TEACHER PERCEPTIONS ON THE EFFECT OF SPEECH DISORDER ON EDUCATIONAL DEVELOPMENT OF SCHOOL-AGE STUDENTS IN GOVERNMENT COMPREHENSIVE SPECIAL SCHOOL, LAFIA, NASARAWA STATE

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Abstract

This study investigates teacher perceptions on the effect of speech disorders on educational development of school-age children in Government Comprehensive Special School in Lafia, Nasarawa State, Nigeria. A quantitative cross-sectional survey design was employed to collect data from 40 teachers at the Government Comprehensive Special School in Lafia, using structured questionnaires. The results revealed that stuttering (35%) was the most common speech disorder, followed by voice problems (30%), language difficulties (20%), and articulation problems (15%). A significant proportion of the students demonstrated low or very low abilities in asking and answering questions, producing spoken words, and using words correctly, key indicators of impaired academic communication and educational development. These findings are consistent with the existing literature, which highlights the adverse effects of speech disorders on language proficiency and overall educational development. The study emphasizes the critical need for early identification and intervention, including speech therapy services and teacher training, to support affected students. By addressing these communication barriers, educational stakeholders can improve learning outcomes and promote inclusive education for children with speech challenges. This study contributes to the growing body of knowledge on speech and language disorders, offering practical recommendations for enhancing academic support systems in Nigerian schools.

Keywords: Speech Disorders, Educational Development, School-Age Children.

Introduction

Speech disorders are communication impairments that affect an individual's ability to produce speech sounds correctly, fluently, or with an appropriate voice (Adegbiyi et al., 2019). These disorders can significantly affect a child's academic development, especially in early education, where learning is heavily reliant on verbal instruction and language interaction. In educational settings, the ability to communicate effectively is foundational to reading, writing, classroom participation, and social integration (Agbu et al., 2024). However, speech disorders often remain undiagnosed or misunderstood, particularly in developing countries like Nigeria, where awareness and access to speech therapy are

limited (Adebisi et al., 2014).

In Nigeria and specifically in Nasarawa State, many children with speech difficulties face challenges that go unnoticed due to inadequate teacher training, cultural misconceptions, and limited health services (Ahmed, 2015). Rather than being identified and supported, these children are often labeled as unintelligent or disruptive, leading to poor academic performance and social withdrawal (Okoye & Anyanwu, 2024). Despite the growing awareness of inclusive education, there is still a significant gap in understanding how prevalent speech disorders are and how they impact educational development in Nigerian schools.

Studying speech disorders in school-age

children is crucial because early identification and intervention can greatly improve a child's educational trajectory. When speech difficulties are addressed in the early years, children are more likely to succeed academically and build stronger social relationships (Okoye & Anyanwu, 2024). Moreover, understanding the types and causes of these disorders can help educators, parents, and policymakers develop tailored interventions thereby ensuring equitable learning opportunities. The problem, therefore, lies in the lack of empirical data and focused research on the prevalence and impact of speech disorders on educational development in Nasarawa State. Without clear insights, affected children may continue to face academic setbacks, low self-esteem, and limited future opportunities.

The main aim of this study is to investigate the perception of teachers on prevalence, types, causes, and effects of speech disorders among school-age children in Government Comprehensive Special School, Lafia. The study seeks to understand how these disorders influence students' educational development thereby providing evidence that could guide the development of support systems and educational policies aimed at fostering inclusive learning environments.

Conceptual Review

A speech disorder is a communication impairment affecting a person's ability to produce spoken language in a typical way. As defined by Medical News Today (Eske, 2023), a speech disorder involves any condition that interferes with forming sounds that make up words, and it may result from damage to the muscles, nerves, or vocal structures. According to the National Institute on Deafness and Other Communication Disorders (NIDCD, 2020), a speech disorder includes any defect or abnormality that prevents an individual from communicating by means of spoken words; causes may include nerve injury to the brain, muscular paralysis, structural defects, or other neurological or physical conditions. Together, such definitions show that speech disorders encompass difficulties in sound production, fluency, voice quality, or coordination necessary for intelligible speech.

Stuttering, also referred to as a fluency disorder, is characterized by disruptions such as sound repetitions, prolongations, and speech blocks. Research has shown that while stuttering severity may not always predict academic achievement, severe cases are positively correlated with dyslexia and poorer performance on standardized language tests (Okoye & Anyanwu, 2024). This suggests that stuttering can complicate literacy skills, including reading and spelling, particularly when associated with comorbid conditions (Adebisi et al., 2014).

Beyond academic outcomes, stuttering has significant psychosocial effects. School-age children who stutter often develop anxiety, negative communication attitudes, and reduced confidence in speech interactions (Ahmed, 2015). These issues can undermine classroom participation, peer relationships, and learning engagement. Language difficulties are communication disorders that affect an individual's ability to understand, process, and use spoken, written, or symbolic language effectively. They can involve difficulties with receptive language (understanding words and sentences), expressive language (using words, grammar, and sentences to communicate), or both. Language disorders encompass both expressive impairments (difficulty producing language) and receptive impairments (difficulty understanding language). According to Bishop et al. (2022), language disorders are distinct from speech disorders because they involve problems with linguistic content, form, and use rather than the motor production of sounds. Children with language disorders may struggle with vocabulary development, sentence structure, storytelling, or following directions, which could impact literacy, academic performance, and social skills. Some language disorders are developmental, such as Developmental Language Disorder (DLD), while others are acquired, resulting from brain injury, hearing loss, or neurological conditions (ASHA, 2021). Early identification and intervention—through individualized speech-language therapy, classroom support, and family involvement—are essential for improving communication and long-term outcomes (Ebbels, 2020).

Voice problems are conditions that affect the pitch, loudness, quality, or resonance of a person's voice, making it sound different from what is considered normal for their age, sex, or cultural group. They occur when there are problems with the vocal folds (cords), larynx, or the processes involved in voice production. Common signs include hoarseness, breathiness, strained or weak voice, and sudden loss of vocal range (ASHA, 2021). According to Stachler et al. (2020), voice disorders could be functional (caused by misuse or overuse of the voice, such as vocal nodules), organic (resulting from structural or neurological issues like laryngeal cancer or vocal fold paralysis), or psychogenic (linked to emotional or psychological conditions). These disorders may arise in professional voice users, such as teachers, singers, or broadcasters, but can affect anyone. Early diagnosis by an otolaryngologist and treatment through voice therapy, medical management, or surgery are essential to restore healthy vocal function (Behrman, 2021).

The reviewed literature highlights that speech disorders significantly affect educational development in multiple ways. Early speech and language impairments limit vocabulary growth, reading comprehension, and writing, increasing the risk of long-term academic difficulties (Bishop & Adams, 1990). They also lead to psychosocial challenges such as anxiety, social withdrawal, and reduced participation (Ahmed, 2015). Severe stuttering is linked with comorbid learning difficulties like dyslexia (Okoye & Anyanwu, 2024). Despite evidence supporting effective interventions (Adegbiyi et al., 2019), underdiagnosis remains common in Nigeria due to limited expertise and cultural barriers (Adebisi et al., 2014).

This review reveals that speech disorders including stuttering, articulation problems, and language impairments, are closely linked to educational development. They influence not only literacy skills but also social participation and self-esteem. In Nigeria, particularly in Nasarawa State, limited awareness, inadequate health services, and cultural misconceptions worsen the challenges faced by affected students. By focusing on

Government Comprehensive Special School Lafia, this study aims to generate locally relevant evidence on the prevalence and educational effects of speech disorders, thereby contributing to the development of inclusive policies and effective intervention strategies.

Empirical Review

Several empirical studies have established the link between speech disorders and educational development among school-age children. These studies show evidence that speech disorders such as stuttering, articulation problems, voice disorders, and language difficulties negatively impact educational development, particularly in areas such as vocabulary development, language use, and classroom communication.

Dockrell and Lindsay (2007) conducted a longitudinal study on students with speech and language impairments and found that these students consistently underperformed in standardized literacy assessments compared to their peers. Their difficulties in expressing thoughts clearly and using appropriate vocabulary limited their ability to complete written tasks and engage in classroom discussions. This aligns with the framework's suggestion that children with articulation problems and language difficulties will show reduced vocabulary output and struggle with word usage.

In another study, Durkin and Ramsden (2007) explored the academic development and performance of adolescents with a history of speech and language difficulties. Their results showed that even when basic speech problems were resolved, lingering difficulties in expressive language continued to affect academic writing, comprehension, and participation. These findings underscore the long-term academic consequences of unresolved speech disorders and reinforce the conceptual framework's focus on the persistent impact of these disorders on measurable educational indicators. Moreover, a Nigerian-based study by Adegbiyi et al. (2019) reported that in selected primary schools in Northern Nigeria, children with speech disorders performed poorly in classroom tasks requiring verbal responses and written language use. Teachers in the study reported challenges in evaluating such students

due to their limited expressive capabilities. This further supports the idea that "number of words" and "use of words" could serve as meaningful proxies for assessing the educational development of children with speech disorders in the Nigerian context.

Adebisi et al. (2014) highlighted the socio-cultural dimensions affecting speech disorder recognition in Nigeria. Their findings indicated that many children with voice and fluency problems were misdiagnosed or left unsupported, leading to a lack of intervention and continued educational struggles. This study validates the relevance of considering speech disorders in educational planning, especially in regions like Nasarawa State, where awareness and resources are limited. Consequently, existing empirical studies strongly support the conceptual framework of this research. They affirm that speech disorders significantly influence children's educational development, and that assessing "number of words" and "use of words" provide valid means of evaluating the impact of these disorders in educational settings.

Theoretical Review

This study adopts a blend of behavioural and nativist theories to explain the effect of speech disorders on the educational development of school-age children in Government Comprehensive Special School Lafia. The behavioural theory, as advanced by Skinner (1957), posits that language is a learned set of verbal behaviours acquired through operant conditioning. According to Skinner, children's speech develops through imitation, reinforcement, and environmental feedback. When caregivers or educators provide consistent reinforcement for correct language use, children are more likely to adopt and retain appropriate speech behaviours. Hult, Howard, and Fahey (2011) emphasise that external stimuli and reinforcement shape a child's communication skills, making the environment a critical factor in language acquisition and remediation. In the context of this study, the behavioural perspective is significant for understanding how speech disorders may persist

when reinforcement or modelling is inconsistent or inadequate.

However, Chomsky (1965) argues that language acquisition is driven by innate mechanisms rather than solely by environmental reinforcement. Integrating nativist insights highlights that while external support is essential, some speech disorders may stem from underlying cognitive or neurological factors that cannot be resolved through behavioural strategies alone. Therefore, a multidimensional approach combining environmental reinforcement, innate developmental considerations, and specialised therapy are necessary to address speech disorders effectively.

Methodology

This study adopts a cross-sectional survey research design to quantitatively investigate teacher perceptions on the prevalence, types, causes, and impact of speech disorders on the educational development of school-age children in Government Special School Lafia Nasarawa State, Nigeria. The study targeted 40 teachers from the Government Comprehensive Special School, Lafia. A census sampling technique was employed to include all eligible participants within the selected school. Structured questionnaires served as the primary instrument for data collection, allowing for standardised and objective responses related to speech difficulties and educational development. The questionnaire items were designed to capture data on the frequency, nature, and impact of various speech disorders. The collected data were analysed using descriptive statistics (frequencies, percentages, means) to summarise the prevalence and types of disorders, and correlation analysis to examine the relationship between speech disorders and educational development. To visually represent the findings of the study, graphs and pie charts were used alongside descriptive statistics. These graphs and pie charts illustrated distributions and comparisons between the data to provide insights on the data collected. The quantitative approach ensured measurable and generalisable results within the study context.

Data Presentation and Analysis

The data collected from the study provides critical insights into teacher perceptions on the prevalence and effects of various types of speech disorders among school-age children in Government Comprehensive Special School, Lafia, Nasarawa State. The analysis focuses on the types of disorders identified and how they influence students' speech-related development, such as asking and answering questions, sentence clarity, word production, vocabulary breadth, and correct usage of words.

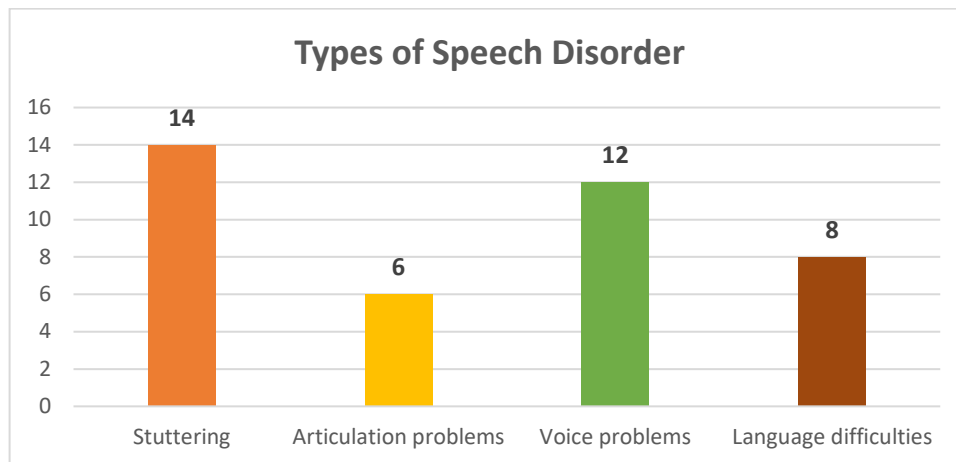


Figure 1: *Types of Speech Disorder among school children*

Figure 1 shows that 14 (35%) of the children were affected by stuttering, 6 (15%) had articulation problems, 12 (30%) had voice problems, and 8 (20%) of the children had language difficulties. This shows that stuttering is the most prevalent speech disorder among the school children.

Table 1: *Ability to ask questions properly*

| | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Very low | 18 | 45.0 |
| Low | 11 | 27.5 |
| Normal for age | 9 | 22.5 |
| High | 2 | 5.0 |
| Total | 40 | 100.0 |

Table 1 shows the children's ability to ask questions properly. The majority of the teachers indicated that (18, that is 45%) the children have a very low ability to ask questions as they should at their age. However, only 5% of the teachers stated that children have a high ability to ask questions. Meanwhile, a cumulative 30% of teachers show that the children have low and very low ability to ask questions properly, showing a high level of disorder.

Table 2: Ability to answer questions properly

| | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Very low | 10 | 25.0 |
| Low | 12 | 30.0 |
| Normal for age | 14 | 35.0 |
| High | 4 | 10.0 |
| Total | 40 | 100.0 |

Table 2 shows the children's ability to answer questions properly. While a significant number of children (14, 35%) have the ability to answer questions normally as they should at their age, a cumulative number of the children (22, 55%) have low and very low ability to answer questions normally. A small 10% of the children have high abilities to answer questions properly.

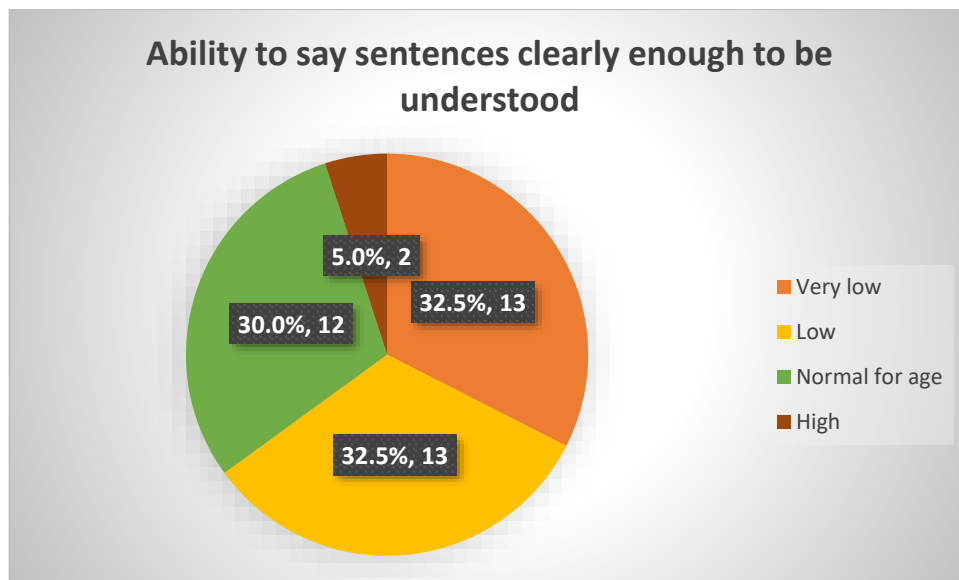


Figure 2: Ability to make sentences clearly

Figure 2 shows the children's ability to make sentences clearly enough for listeners to understand. A cumulative 65% of the children have low and very low ability to make clear sentences for listeners to understand, while 30% of the children have normal ability for their age, and 5% possess high abilities when it comes to reading out sentences. This shows that the majority of the children have low abilities to make sentences clearly enough for listeners to understand, suggesting a speech disorder.

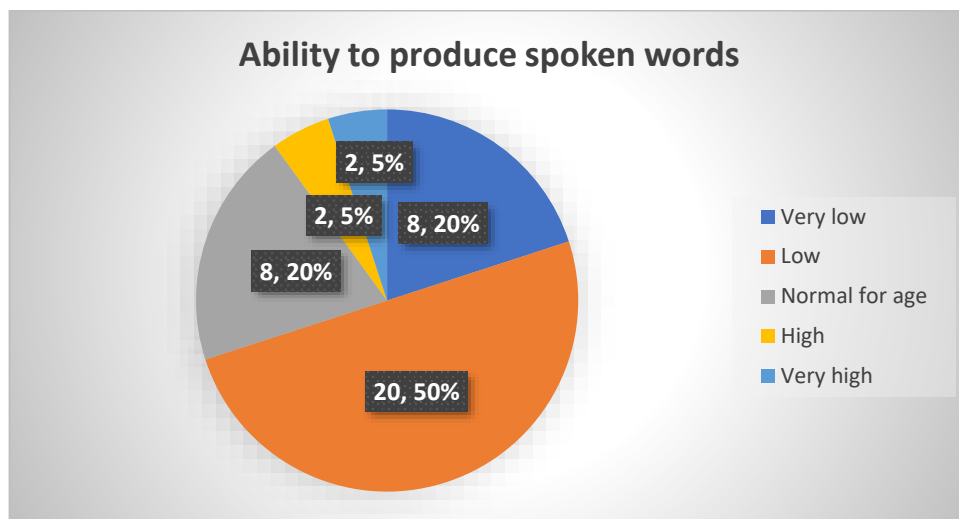


Figure 3: Ability to produce spoken words

Figure 3 shows the children's ability to produce spoken words. 10% (cumulative) of the children have high abilities in producing spoken words. However, a significant 70% (cumulative) of the children have low abilities to produce spoken words. Meanwhile, 20% of the children can produce spoken words normally as they should at their age. This shows a majority of speech disorders in the children.

Table 3: The number of words

| | Frequency | Percentage (%) |
|-----------------------------------|-----------|----------------|
| Very low (<2500 words) | 6 | 15.0 |
| Low (2500-5000 words) | 12 | 30.0 |
| Normal for age (5000-10000 words) | 12 | 30.0 |
| High (>10000 words) | 10 | 25.0 |
| Total | 40 | 100.0 |

Table 3 shows the number of words the children know in their learning. Most of the children's number of words is low, less than 5000 words (45% - cumulative of low and very low), while 25% of the children have a high number of words above 10000 words. A moderate 30% of the children know a normal number of words for their age, within 5000 to 10000 words.

Table 4: Ability to use words correctly

| | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Very low | 8 | 20.0 |
| Low | 15 | 37.5 |
| Normal for age | 13 | 32.5 |
| High | 4 | 10.0 |
| Total | 40 | 100.0 |

Table 4 shows the children's ability to use words correctly. 32.5% of the children have the ability to use words correctly as they should for their age. A cumulative 57.5% of the children are known to have a low ability to use words correctly. And, 10% of the children have a high ability to use their words correctly.

Discussion of Findings

The findings from this study reveal a high prevalence of speech disorders among school-age children in Government Special School Lafia, with stuttering (35%) as the most common disorder, followed by voice problems (30%), language difficulties (20%), and articulation problems (15%). These results are consistent with the observations of Owens (2016), who noted that stuttering and articulation disorders are among the most frequently diagnosed speech disorders in children. The prominence of these disorders suggests challenges in fluency, clarity, and language development, which are essential for effective classroom interaction and academic achievement.

Furthermore, the study shows that 30% of the children have either low or very low abilities to ask questions properly, while 55% struggle with answering questions appropriately. These expressive and receptive language difficulties support the findings of Conti-Ramsden and Durkin (2012), who emphasised that children with speech and language impairments often experience difficulty in classroom communication, limiting their participation and comprehension. A notable 65% of the subjects were observed to have difficulty constructing clear sentences, and 70% demonstrated low spoken-word production ability. These results affirm the assertion by Adebisi et al. (2014) that children with speech-language impairments are more likely to encounter obstacles in expressive communication, often leading to educational underdevelopment. The study also found that 45% of children had low word knowledge, and 57.5% were unable to use words correctly, suggesting limited vocabulary development and usage. This is in line with Agbu et al. (2024), who reported that deficits in vocabulary and grammar significantly affect

reading comprehension and written expression, thereby impacting negatively on overall educational development. Consequently, this study validates previous research linking speech disorders to poor educational development. The high frequency of speech difficulties among children in Government Comprehensive Special School, Lafia, underscores the need for early diagnosis, specialised speech interventions, and teacher training to support affected learners in the classroom setting.

Conclusion

This study concludes that speech disorders are prevalent among school-age children in Government Comprehensive Special School Lafia, Nasarawa State, with stuttering, voice problems, language difficulties, and articulation issues being the most common. These disorders significantly impact children's ability to ask and answer questions, produce and use words correctly, and construct clear sentences which are skills required for effective learning in school. The findings underscore the strong link between communication ability and learning outcomes, validating existing literature that speech disorders can hinder language development, classroom participation, and overall educational development. The results emphasise the need for early identification, professional intervention, and tailored support within the school system to address speech-related challenges. Educators and policymakers must prioritise speech and language development in curriculum required for planning and provide access to speech therapists and specialised training for teachers. Addressing these issues proactively can enhance educational opportunities and promote better educational development for children affected by speech disorders in Nasarawa State and beyond.

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