

Voices, signs, and symbols: Strategies for effective English Learning among students with special needs

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Abstract

This study explores the communication strategies employed in English language learning for students with special needs (CWSN) at SLB ABCD Tunas Pembangunan 2. Using a descriptive qualitative approach, data were collected through classroom observations, in-depth interviews, and conversation analyses. The research identifies the use of multimodal strategies, echolalia, code-switching, code-mixing, sign language, real-object visualization, and kinesthetic activities as crucial for facilitating vocabulary comprehension and active participation among diverse CWSN groups, including students with intellectual disabilities, hearing impairments, ADHD, and ASD. Findings reveal that integrating these strategies—rather than their isolated use—enhances understanding, engagement, and inclusivity in the learning process. The study underscores the importance of considering students' socio-cultural backgrounds, individual needs, and real-life experiences in designing effective pedagogical interventions. It contributes both practically, by offering guidance for teachers and curriculum developers, and theoretically, by expanding insights into multimodal communication as a holistic approach to inclusive education for CWSN.

Kata Kunci:

alih kode; anak
berkebutuhan khusus;
bahasa Inggris; echolalia;
multimodal; pendidikan
inklusif; strategi
komunikasi

Abstrak

Suara, isyarat, dan simbol: Strategi pembelajaran bahasa Inggris yang efektif bagi siswa berkebutuhan khusus

Penelitian ini mengeksplorasi strategi komunikasi yang digunakan oleh anak berkebutuhan khusus (CWSN) dalam pembelajaran bahasa Inggris di SLB ABCD Tunas Pembangunan 2. Fokus penelitian ini adalah bagaimana echolalia, bahasa isyarat, alih kode, campur kode, visualisasi nyata, dan aktivitas kinestetik dapat meningkatkan pemahaman kosakata serta partisipasi aktif siswa. Pendekatan kualitatif deskriptif digunakan melalui observasi, wawancara mendalam, dan analisis percakapan. Hasil penelitian menunjukkan bahwa strategi komunikasi multimodal yang disesuaikan dengan karakteristik individual siswa dan konteks sosial-budaya mereka secara signifikan meningkatkan keterlibatan, pemahaman kosakata, serta penerapan materi bahasa Inggris secara praktis. Alih kode ke bahasa lokal, penggunaan objek nyata, serta kombinasi modalitas visual, auditori, dan kinestetik terbukti efektif bagi berbagai jenis CWSN, termasuk tunagrahita, tunarungu, ADHD, dan ASD. Temuan ini menegaskan pentingnya pendekatan pembelajaran yang inklusif, adaptif, dan kontekstual, serta memberikan kontribusi empiris dan teoretis bagi pengembangan metode pengajaran bahasa Inggris yang responsif terhadap kebutuhan CWSN.

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1 Introduction

Education is a fundamental right for every child, including children with special needs (CWSN), which must be provided equitably without exception. This principle is enshrined in Law Number 20 of 2003 concerning the National Education System, which asserts that every citizen is entitled to equal and quality education. Furthermore, Law Number 8 of 2016 concerning Persons with Disabilities emphasizes that CWSN have the right to receive education tailored to their individual needs and abilities. Within the context of inclusive education, this right encompasses access to all subjects, including English, which plays a crucial role in developing communication skills, critical thinking, and global competencies. Nevertheless, in practice, CWSN face more complex challenges compared to regular students, even in comprehending Indonesian as their mother tongue. These difficulties become increasingly pronounced when learning English, which entails different structures, vocabulary, and conventions. Consequently, the learning process becomes more demanding, requiring teachers to implement creative, adaptive, and effective communication strategies.

The social phenomena observed in the classroom indicate that special needs school teachers encounter significant challenges in delivering English lessons in a manner that is comprehensible to all students. Children with special needs (CWSN) often face limitations in understanding instructions, retaining vocabulary, and connecting taught concepts. To address these difficulties, teachers employ a variety of communication strategies, including code-switching, code-mixing, echolalia, and non-verbal communication. These strategies facilitate students' comprehension of the lesson content, enable them to express their understanding, and encourage active participation in learning activities. This phenomenon demonstrates that communication within a CWSN classroom is inherently complex, as it relies not solely on verbal language but also encompasses body language, facial expressions, gestures, and visual aids. Such communication strategies serve as a critical bridge between teachers and students, thereby allowing English learning to be conducted in an inclusive and adaptive manner.

A number of new studies show that the use of English language instruction for children with special needs (CWSN) needs to be adjusted. Fahrinawati et al. (2025) reported English teachers using some methods, such as code-switching, circumlocution, gestures, approximation, and appeals for help, to help clarify the level of comprehension of their students in the classroom interaction. These strategies also helped students better grasp teachers' instructions and learning materials. In addition, Takriyanti et al. (2022) presented in the systematic literature review an extensive search for instructional methods to reach children with special needs in English, including Total Physical Response (TPR), visual media, differentiated instruction, scaffolding, Picture Exchange Communication System (PECS), and routine-based English language instruction. However, their study mainly synthesized pedagogical approaches, not the communication strategies that had been used by teachers during classroom interaction. Similarly, Utami et al. (2021) found that EFL teachers faced many challenges in teaching intellectually and developmentally disabled students, and therefore, they responded by modifying their strategies or content. Nevertheless, instead of examining the communicative interactions between teachers and students, the study primarily studied teacher problems and their solutions. So, while previous research has spoken of adaptive classroom management strategies and what teachers encounter when it comes to teaching and learning in special education, little attention is paid to English language teachers' strategies for communication with CWSN in the classroom. This is what underlies the present study

Ghafar and Ali (2023) highlighted the role of non-verbal communication, such as gestures and facial expressions, in supporting students with limited verbal abilities. Nevertheless, the study mainly discussed non-verbal interaction generally and did not explore how verbal and non-verbal communication could operate simultaneously in English language learning. Research conducted by Ezeh et al. (2022) as well as Herawati and Fitriani (2021) demonstrated that code-switching and code-

mixing could improve classroom comprehension and interaction. However, both studies were conducted in regular classroom contexts and did not specifically address children with special needs (CWSN), whose cognitive, sensory, and linguistic characteristics require more adaptive communication strategies.

In addition, studies on echolalia conducted by Blackburn et al. (2023) and McAllister et al. (2025) revealed that repetition and imitation are important aspects of language processing and vocabulary acquisition, particularly among autistic children. Although these studies provide important insights into the linguistic function of echolalia, they mainly discuss echolalia from psychological and developmental perspectives rather than from the perspective of classroom interaction and English language teaching practices. As a result, limited attention has been given to how echolalia can function pedagogically in supporting vocabulary learning for CWSN in inclusive or special needs classrooms.

Taken together, previous studies have generally examined pedagogical methods, non-verbal communication, code-switching, or echolalia separately. There remains limited discussion regarding how these strategies interact multimodally within actual English learning practices for CWSN. In real classroom situations, communication often occurs through the simultaneous use of verbal explanation, repetition, gestures, visual objects, local language, sign language, and movement-based activities. However, few studies have explored how these strategies are combined adaptively according to the diverse characteristics of CWSN, such as students with intellectual disabilities, hearing impairments, ADHD, and autism spectrum disorder (ASD). Therefore, this study seeks to address this gap by investigating how multiple communication strategies are integrated in English classrooms at SLB ABCD Tunas Pembangunan 2 to support students' comprehension, participation, and inclusive interaction.

2 Methods

This study employed a descriptive qualitative approach to obtain an in-depth understanding of the communication strategies used by children with special needs (CWSN) in English language instruction at a special needs school. A qualitative approach was chosen because the study aims to systematically, factually, and accurately describe communication phenomena occurring in the classroom, including code-switching, code-mixing, echolalia, and non-verbal communication, without intervening in the naturally occurring learning process. Accordingly, this research emphasizes understanding the social context, teacher–student interaction, and the communication dynamics of CWSN within the real classroom setting.

The study was conducted during English learning activities across three educational levels, namely Grade 1 Elementary School (SD), Grade 1 Junior High School (SMP), and Grade 1 Senior High School (SMA). The participants consisted of nine students with special needs and four classroom teachers who regularly taught and accompanied the students in daily learning activities across subjects. To protect participants' privacy, all student identities were anonymised. All participants were from a Javanese cultural background. The students' ages ranged from 6 to 19 years old. At the senior high school level, three students aged 18–19 years participated, including one student with Down syndrome, one student with intellectual disability, and one student with hearing impairment. At the junior high school level, two students aged 14 years with intellectual disabilities participated. At the elementary school level, four students aged 6–11 years participated, consisting of one student with hearing impairment, two students with intellectual disabilities, and one student with intellectual disability accompanied by hyperactive behaviour and speech delay.

This study employed purposive sampling to select participants who were most relevant to the research objectives and capable of providing rich information regarding communication strategies in

English learning. The selection criteria included students who represented the categories of special needs present at the school, were involved in English learning activities, and displayed diverse communication characteristics during classroom interaction. The participating teachers were selected because they had continuous experience accompanying the students in daily classroom learning and were familiar with the students' communication behaviours, learning challenges, and interaction patterns across subjects. In total, thirteen participants (nine students and four teachers) met these criteria and were included in the study. The participants were chosen based on the partner school's identification of major challenges in English learning, particularly communication difficulties, limited learning media, and students' difficulties in developing writing and social communication skills. Therefore, these participants were considered the most relevant sources of data to explore how communication strategies emerge in authentic classroom interaction.

Data were collected through classroom observation, in-depth interviews, and conversation analysis. Classroom observations were conducted across several English class sessions to monitor teacher–student and peer interactions, focusing on communication strategies such as code-switching, code-mixing, echolalia, and non-verbal communication, as well as students' responses to teaching materials and classroom activities. Semi-structured interviews were conducted with the classroom teachers to gain deeper insights into students' communication characteristics, challenges in teaching English to CWSN, and teaching practices and learning media used in the classroom. Conversation analysis was conducted based on systematically recorded field notes from the observations to identify patterns of verbal and non-verbal communication used by CWSN.

The research procedure began with obtaining permission from the school administration and securing informed consent from teachers, students, and parents. Observations were conducted across multiple sessions to ensure representative data. All verbal and non-verbal communication interactions were documented along with contextual classroom factors influencing students' comprehension. Interviews were conducted after the observation phase using open-ended questions to allow participants to elaborate on their experiences and perceptions.

Data were analysed using qualitative descriptive analysis through the stages of data reduction, data display, and conclusion drawing and verification. Data reduction involved selecting information relevant to the research focus, while data display was presented narratively and supported with tables to facilitate understanding of the observed phenomena. Conclusions were drawn based on findings from observations, interviews, and conversation analysis and were corroborated with relevant literature. Data validity was ensured through source and method triangulation by comparing information obtained from teachers, students, and classroom observations to achieve a comprehensive and accurate understanding.

3 Findings

The findings of this study were obtained through classroom observations, interviews, and interaction analysis conducted during English learning activities at SLB ABCD Tunas Pembangunan 2. The classroom consisted of students aged 6 to 19 years old with diverse categories of special needs, including intellectual disabilities, hearing impairments, ADHD, and autism spectrum disorder (ASD). At the senior high school level, three students aged 18–19 years participated, including students with Down syndrome, intellectual disability, and hearing impairment. At the junior high school level, two students aged 14 years with intellectual disabilities participated. Meanwhile, at the elementary school level, four students aged 6–11 years participated, consisting of students with hearing impairment, intellectual disabilities, hyperactive behaviour, and speech delay.

These diverse characteristics influenced the communication patterns that emerged during classroom interaction and required teachers to employ adaptive communication strategies to support

comprehension and participation. The English lessons primarily focused on kitchen-related vocabulary, including cooking utensils and ingredients such as frying pans, knives, glasses, plates, blenders, eggs, garlic, shallots, chili, cheese, and rice. The teacher explained that these topics were intentionally selected because they were closely related to students' daily experiences and the school's culinary practice program. As a result, students could directly connect English vocabulary with real objects and practical activities.

The findings reveal that classroom communication was strongly shaped by multimodal interaction involving echolalia, code-switching, sign language, visual aids, gestures, and kinesthetic activities. These strategies were not used separately, but were continuously combined to accommodate the students' linguistic, cognitive, and sensory needs. Four major themes emerged from the analysis: (1) echolalia as vocabulary internalization, (2) code-switching as linguistic bridging, (3) visual and kinesthetic learning as meaning construction, and (4) Inclusive Interaction Through Adaptive Communication.

3.1 Echolalia as Vocabulary Internalization

The findings indicate that echolalia functioned as one of the primary communication patterns in the English classroom. Based on classroom observations, students frequently repeated words or phrases immediately after hearing them from the teacher, particularly during vocabulary introduction activities. This pattern was categorized as immediate echolalia because the repetition occurred directly after the teacher's utterance. However, the findings suggest that echolalia in this classroom did not merely represent meaningless repetition. Instead, it functioned as a mechanism for vocabulary internalization and pronunciation familiarization among children with special needs.

During classroom interaction, the teacher consistently encouraged students to repeat English vocabulary aloud together before asking them to identify or use the words independently. For example, when introducing kitchen-related vocabulary such as "blender," "plate," and "knife," students repeatedly echoed the words several times while simultaneously observing the real objects displayed in front of them. One classroom interaction is presented below:

Classroom interaction transcript:

Teacher: *"Okay, look at this. This is a blender. Blender."*

Students: *"Bdr... derrr..."*

Teacher: *"Blend???"*

Students: *"der!"*

Teacher: *"What is this?" (while pointing at the object)*

Another student: *(pointing at the blender) "Jus... buat jus."*

Teacher: *"Yes, blender buat ngejus."*

Observation note:

During the interaction, students attempted to imitate the teacher's pronunciation even though several sounds were still incomplete or unclear. Some students focused more on reproducing the final syllable "der" rather than the entire word "blender." While repeating the vocabulary, students simultaneously pointed at the real object and observed the teacher's gestures and mouth movements. One student responded by explaining the function of the object rather than producing the English vocabulary itself, indicating that the student understood the object conceptually despite not yet

mastering the pronunciation. Several students smiled and continued repeating fragments of the word after the interaction ended.

Teacher interview excerpt:

"Sometimes students cannot say the full word directly. They only repeat the easiest part first. But after repeating many times and seeing the object, they start to understand and pronounce it better."

Analytically, this interaction demonstrates that echolalia functioned as a gradual vocabulary acquisition process rather than immediate accurate repetition. Students simplified unfamiliar English sounds into smaller phonological units that were easier for them to imitate. The repeated production of partial sounds such as "der" indicates that students were actively processing the vocabulary through approximation and auditory familiarization. This finding suggests that incomplete repetition should not be interpreted as communication failure, but rather as evidence of ongoing phonological adaptation and language processing.

The interaction also reveals the importance of multimodal support in facilitating comprehension. While students experienced difficulty pronouncing the full English word, they were still able to connect the object with its practical function, as reflected in the response "buat jus" ("for making juice"). This indicates that conceptual understanding sometimes developed earlier than accurate verbal production. The teacher's use of gestures, real objects, repetition, and simplified bilingual explanation created multiple pathways for meaning construction. Consequently, students were able to participate in classroom interaction even when their verbal production remained limited.

3.2 Code-Switching as Linguistic Bridging

The findings reveal that code-switching played a central role in facilitating comprehension and maintaining classroom interaction during English learning activities. The teacher consistently alternated between English and Javanese when introducing vocabulary, giving instructions, clarifying meaning, encouraging participation, and responding to students' confusion. Unlike conventional English classrooms that emphasize exclusive target-language exposure, communication in this inclusive classroom relied heavily on local language mediation because most students came from rural Javanese-speaking environments and had very limited exposure to Indonesian and English in their daily interactions. As a result, Javanese functioned not only as a communication tool but also as the students' dominant cognitive and social language.

Observation data indicate that the teacher predominantly employed intrasentential code-switching, meaning that language shifts occurred within a single sentence or interaction sequence. This pattern frequently appeared when the teacher introduced unfamiliar English vocabulary. Rather than explaining vocabulary entirely in English or Indonesian, the teacher immediately inserted familiar Javanese words to ensure comprehension and maintain students' attention. One classroom interaction is presented below:

Classroom interaction transcript:

Teacher: "This is chili, lombok."

Students: "Lombok... huh hah."

Teacher: "Yes, chili means lombok."

During the interaction, several students immediately responded after hearing the Javanese word "lombok." Some students pointed at the chili object while repeating the local term instead of the English vocabulary. One student smiled and nodded repeatedly after the teacher switched to Javanese. Students who were previously silent began participating once the familiar local word was introduced. Students with hyperactive behaviour showed shorter attention spans during long English explanations,

but became more focused after the teacher simplified the instruction using Javanese and direct gestures. Besides, Students who initially avoided eye contact became more responsive after the teacher inserted Javanese vocabulary into the explanation. Some students repeated the local term enthusiastically while pointing at the object.

Analytically, this finding suggests that code-switching reduced cognitive overload by simplifying linguistic processing demands. Students did not need to simultaneously decode unfamiliar vocabulary and complex instructions because meaning had already been scaffolded through familiar language use. This allowed students to allocate more cognitive attention toward the learning activity itself rather than struggling solely with language comprehension.

In addition, the findings demonstrate that code-switching rarely occurred independently. Instead, it was consistently combined with gestures, visual aids, repetition, object-pointing, and echolalia. For instance, while saying “*chili, lombok*,” the teacher simultaneously held the object, pointed at it, and encouraged students to repeat the word together. This indicates that the effectiveness of code-switching emerged through multimodal reinforcement rather than language alternation alone.

Teacher interview excerpt:

“Students usually know the object, but they do not know the Indonesian or English term. So I connect it first with Javanese, then slowly introduce the English vocabulary.”

Analytically, these findings indicate that code-switching functioned as a linguistic bridge that connected unfamiliar English vocabulary with the students’ existing linguistic knowledge. Students processed new vocabulary more effectively when meaning was linked to familiar local language concepts. Instead of memorizing isolated English words, students first activated prior knowledge through Javanese before associating the concept with English vocabulary. This process reduced linguistic distance and allowed students to negotiate meaning through a language system that was cognitively accessible to them.

The findings further suggest that code-switching reduced communication barriers and prevented interactional breakdowns in the classroom. During several observations, explanations delivered entirely in English or Indonesian frequently resulted in silence, confusion, or loss of attention. In contrast, students responded more actively when the teacher alternated between English and Javanese. For example, during one observation, the teacher initially asked students in English, “*What is this?*” while holding a kitchen utensil. Most students remained silent. However, after the teacher inserted Javanese explanation and gestures, students immediately responded by mentioning the object’s local name and function.

3.3 Visual and Kinesthetic Learning as Meaning Construction

The findings show that visual and kinesthetic strategies played an essential role in helping students construct meaning during English vocabulary learning. Rather than relying solely on verbal explanation, the teacher consistently incorporated real-life objects, pictures, gestures, and movement-based activities into classroom instruction. The English lessons focused primarily on kitchen-related vocabulary, including utensils and ingredients such as frying pans, knives, glasses, blenders, eggs, garlic, chili, and rice. These topics were intentionally selected because they were closely connected to students’ daily experiences and the school’s culinary skill program. As a result, students were able to associate English vocabulary with objects and activities that were already familiar within their everyday environment.

The findings indicate that students demonstrated stronger engagement and comprehension when vocabulary was presented through concrete and sensory experiences. During classroom observations, students appeared more responsive when they could directly see, touch, or use the objects being

discussed. One classroom interaction occurred when the teacher introduced a frying pan during vocabulary practice. Instead of immediately producing the vocabulary item, one student explained the object's practical function.

Classroom interaction transcript:

Teacher: *"What is it?"*

Student: *"Buat goreng."* ("For frying.")

Teacher: *"Yes, frying pan. For frying."*

Observation note:

Students pointed at the frying pan while discussing its function with classmates. Several students laughed and imitated frying movements using their hands after seeing the object. Some students attempted to repeat the word "frying pan" after hearing the teacher pronounce it multiple times.

Although the student did not initially produce the English vocabulary item "frying pan," the response demonstrates conceptual understanding of the object's function. Analytically, this finding suggests that meaning construction occurred through sensory and functional association before accurate linguistic labeling emerged. Students first understood what the object was used for through everyday experience, then gradually connected that understanding to English vocabulary. This pattern indicates that comprehension among children with special needs was strongly supported by contextual and concrete learning experiences rather than abstract memorization alone.

The findings also reveal that visual support reduced communication barriers for students with hearing impairment and intellectual disabilities. During several observations, students relied heavily on visual attention toward the object, the teacher's gestures, and classmates' movements when attempting to understand vocabulary meaning. Students with hearing impairment often focused on lip movements, gestures, and object-pointing simultaneously while following classroom interaction. Meanwhile, students with intellectual disabilities appeared more capable of recalling vocabulary when the teacher repeatedly displayed the same object during practice activities. This demonstrates that visual learning functioned as an important compensatory strategy that enabled students to process meaning through non-verbal channels.

In addition to visual learning, kinesthetic activities also played a significant role in supporting vocabulary acquisition and classroom participation. One of the most frequently observed activities was the *"one child, one word"* activity, in which students received separate letter cards and were required to arrange them into complete English words. After constructing the vocabulary item, students rewrote the word on worksheets and pronounced it aloud in front of the class.

Observation note:

Students actively searched for letter cards, walked toward the board, arranged the letters carefully, and repeated the completed vocabulary enthusiastically. Some students showed excitement by clapping or smiling after successfully arranging the correct word sequence. Students who initially appeared distracted became more focused once physical movement activities began.

The teacher explained that movement-based learning activities helped students maintain concentration and participate more actively during lessons.

Teacher interview excerpt:

"If students only sit and listen, they lose focus quickly. But when they move, search for letters, and arrange them themselves, they become more active and remember the words better."

Analytically, these findings indicate that kinesthetic learning transformed vocabulary acquisition into an embodied learning process involving motor movement, visual recognition, auditory repetition, and social interaction simultaneously. Instead of passively receiving information, students actively participated in constructing vocabulary through physical engagement. This process appeared particularly effective for students with ADHD and hyperactive behaviour, who demonstrated shorter attention spans during passive instruction but showed increased concentration during movement-oriented activities. Physical interaction with learning materials therefore functioned not only as a classroom activity but also as a strategy for sustaining attention and regulating participation.

Furthermore, the findings demonstrate that visual and kinesthetic learning promoted collaborative interaction among students. During letter-arranging activities, students frequently observed each other's work, imitated peers' actions, pointed at letters, and provided simple assistance through gestures or verbal cues. This indicates that meaning construction occurred socially as well as individually. Vocabulary learning became an interactive process in which students negotiated meaning collectively through shared physical and visual experiences.

Overall, the findings demonstrate that visual and kinesthetic learning strategies supported English vocabulary acquisition by making abstract language concepts more concrete, contextual, and accessible. The integration of real objects, gestures, movement, and sensory engagement enabled students to connect vocabulary with functional experience, sustain classroom attention, and participate more actively in interaction. Consequently, meaning construction in the inclusive classroom emerged not only through verbal explanation, but through embodied and multimodal learning experiences that accommodated the diverse cognitive and communicative needs of children with special needs

3.4 Inclusive Interaction Through Adaptive Communication

The findings show that inclusive interaction in the classroom was strongly supported by the use of educational games designed according to the characteristics and learning needs of children with special needs. During the observations, textbook-based learning was often less effective because students quickly lost concentration when activities only involved listening, reading, or copying vocabulary. Some students became distracted after only a few minutes, while others stopped responding to the teacher's instructions. However, classroom participation changed significantly when learning activities were combined with games involving movement, teamwork, and direct interaction. Students appeared more enthusiastic, more communicative, and more willing to participate in English learning activities.

To increase participation and maintain students' attention, the teacher implemented several game-based learning activities such as *Letter Ship*, *Build the Tower*, *Suck the Letters*, and *Follow the Color*. These games were not merely used as entertainment, but functioned as learning strategies that combined vocabulary practice with movement, cooperation, and sensory interaction. Through these activities, students were able to engage with English vocabulary in ways that felt more natural and enjoyable for them.

One activity frequently observed was the *Letter Ship* game. In this activity, students used hand fans to move small paper boats toward the finish line. After reaching the finish line, students were required to arrange scattered letters into English vocabulary based on pictures of kitchen utensils or ingredients provided by the teacher.

Observation note:

Students became excited when the boats started moving. Several students shouted the letters aloud while helping classmates arrange the vocabulary correctly. Some students pointed repeatedly at the pictures while discussing the answers together.

The activity encouraged students to communicate spontaneously during the learning process. Rather than waiting passively for teacher instructions, students actively interacted with classmates to complete the task. Students who were usually quiet during conventional instruction appeared more confident because the activity allowed them to participate physically and socially at the same time. Another activity implemented in the classroom was *Build the Tower*. Students searched for matching vocabulary pictures before stacking plastic cups into a tower. Each cup represented a vocabulary item related to kitchen tools or ingredients.

Observation note:

Students worked together while arranging the cups and repeatedly mentioned the vocabulary during the activity. When the tower collapsed, students laughed and immediately tried again together.

This activity created a collaborative learning atmosphere in which communication occurred naturally between students. Peer interaction became an important part of the learning process because students frequently helped classmates identify pictures, repeat vocabulary, and complete the tower successfully. Instead of focusing only on correct answers, students became engaged in the shared activity itself.

The teacher also used the *Suck the Letters* activity, where students used straws to pick up letter pieces before arranging them into English words. This activity required concentration, coordination, and teamwork because students needed to recognize letters while simultaneously controlling their movements.

Teacher interview excerpt:

"When students learn through games, they become much more active. Even students who usually avoid participating start joining the activity because they feel like they are playing, not studying."

The observations showed that movement-based activities were especially helpful for students with hyperactive behaviour and shorter attention spans. These students were able to remain focused longer when learning involved physical activity and immediate goals. At the same time, students with intellectual disabilities benefited from repetitive and hands-on interaction because they could learn vocabulary gradually through direct practice rather than abstract explanation. Another game observed during the research was *Follow the Color*. Students followed colored pathways to locate pictures of food ingredients or kitchen utensils before mentioning the English vocabulary.

Observation note:

Several students followed the colored dots enthusiastically while pointing at the discovered objects and repeating the vocabulary together. Some students waited for classmates before answering so they could respond collectively.

This activity encouraged students to communicate and cooperate during the learning process. Students who struggled to answer verbally were still able to participate through gestures, pointing, imitation, or group responses. As a result, classroom interaction became more inclusive because participation was not limited only to students who could speak fluently.

After each game, students completed worksheet writing activities by copying or rewriting the vocabulary they had learned during the games. Although many students were still in the stage of copying words, repeated writing practice gradually improved their ability to recognize letters and

arrange vocabulary correctly. The connection between games and writing activities helped students associate movement, visual recognition, and literacy practice within a single learning process.

The use of games also changed the emotional atmosphere of the classroom. Students appeared happier, more relaxed, and less afraid of making mistakes during English activities. Laughter, peer encouragement, repetition, and shared participation became common throughout the learning process. In several observations, students who initially refused to answer eventually joined the activities after watching classmates participate first. This indicates that social interaction and peer modelling played an important role in encouraging participation among children with special needs.

The findings suggest that adaptive communication in the inclusive classroom was not built only through verbal explanation, but through learning experiences that allowed students to move, interact, collaborate, and participate according to their own abilities. The games provided space for students with different communication styles and learning needs to remain involved in classroom interaction. Through these activities, English vocabulary learning became more accessible and meaningful because students were not only learning words, but also learning through shared interaction and experience.

4 Discussion

The findings of this study demonstrate that English vocabulary learning for children with special needs (CWSN) is closely influenced by the teacher's communication strategies and the ability to adapt instruction to students' cognitive, linguistic, and sensory characteristics. The classroom interactions observed in this study indicate that vocabulary acquisition did not occur solely through verbal explanation, but through the integration of repetition, local language use, visual support, movement-based learning, and collaborative interaction. These findings suggest that inclusive English learning requires flexible communication practices that allow students to construct meaning through multiple channels simultaneously.

One of the most prominent findings of this study is the role of echolalia in supporting vocabulary internalization. Students repeatedly imitated words and short utterances produced by the teacher during classroom interaction. Rather than functioning merely as repetitive behaviour, echolalia appeared to help students process pronunciation patterns, retain vocabulary, and participate in interaction. Many students were able to repeat vocabulary before fully understanding its meaning, indicating that imitation became an early stage of language acquisition. This finding supports Sutherland et al. (2024), who argue that echolalia should not simply be interpreted as non-functional repetition, but as a meaningful communicative and cognitive process among children with special needs. Similarly, McAllister et al. (2025) explain that echolalia often functions as a bridge toward language development because children tend to imitate linguistic input before developing independent language production. The findings of this study also align with Maes et al. (2024); Boksa & Kominek (2022), who found that echolalic speech can support interactional engagement and language processing among autistic individuals.

In this study, echolalia appeared particularly effective for students with intellectual disabilities and ASD because repetitive verbal patterns reduced linguistic complexity and created predictable learning routines. Repetition also encouraged classroom participation because students became more confident when they were asked to imitate vocabulary collectively rather than answer independently. This finding suggests that echolalia supported not only pronunciation practice but also interactional confidence and active participation during learning activities. The present findings also support the growing body of literature that recognizes echolalia as a communicatively functional behavior rather than a purely stereotypical or non-purposeful repetition. Previous studies have argued that echoed utterances often enable children with ASD to participate in social and educational interactions when

spontaneous language production remains challenging (Cohn et al., 2022). From this perspective, the students' willingness to repeat vocabulary collectively may indicate that echolalia served as a communicative scaffold, allowing them to engage in classroom discourse with reduced linguistic demands. Consequently, echolalia may facilitate not only pronunciation acquisition but also communicative participation, confidence building, and the gradual transition toward more self-generated speech.

Another important finding concerns the role of code-switching in bridging students' understanding of English vocabulary. The teacher consistently alternated between English and Javanese while introducing vocabulary, giving instructions, clarifying meaning, and encouraging student responses. This strategy was strongly influenced by the students' sociolinguistic background, as most students came from rural Javanese-speaking environments and had limited exposure to Indonesian and English in daily communication. The findings indicate that students became more responsive when unfamiliar English vocabulary was immediately connected to familiar Javanese expressions. This finding supports Kheder & Kaan (2021) who states that code-switching functions as a pedagogical strategy that helps bridge students' first language and the target language. Similarly, Ghaderi et al. (2025); Munawaroh et al. (2022), found that code-switching can improve classroom interaction and facilitate comprehension in English language learning contexts. In this study, switching to Javanese reduced students' confusion and enabled them to connect new vocabulary with concepts they already understood. The use of local language therefore functioned as a cognitive scaffold rather than merely a translation tool.

The findings also reveal that code-switching reduced communication breakdowns and maintained students' attention during classroom interaction. Students who remained silent during full English explanation became more responsive after the teacher inserted Javanese vocabulary and gestures. This indicates that comprehension among CWSN was closely connected to linguistic familiarity and contextual accessibility. The findings therefore reinforce the idea that inclusive English learning cannot be separated from students' social and linguistic environments.

Visual and concrete learning experiences also played a major role in vocabulary comprehension. The teacher consistently used real objects, flashcards, pictures, gestures, and demonstrations during instruction. Students showed stronger engagement when vocabulary was connected to objects that they could see, touch, and use directly. In many classroom interactions, students were able to explain the function of an object before producing its English name. This suggests that conceptual understanding developed prior to linguistic labeling. These findings correspond with Kluth (2025) who emphasizes that students with disabilities often understand information more effectively when learning involves visual and concrete representation rather than abstract explanation alone. The use of real objects reduced cognitive burden because students did not need to imagine unfamiliar concepts abstractly. Instead, they constructed meaning through direct sensory experience. The findings also support research on multimodal and assistive learning environments, which highlights that visual scaffolding and sensory-based instruction help strengthen comprehension and memory retention among students with special educational needs (Taber, 2018).

The findings further demonstrate that movement-based and game-based learning activities significantly increased students' participation and motivation. Textbook-based learning was often less effective because students quickly lost concentration and became passive. In contrast, educational games such as "Kapal Huruf," "Susun Tower," "Sedot Huruf," and "Ikuti Warna" transformed vocabulary learning into active and collaborative experiences. These activities required students to move physically, identify letters or colours, work with classmates, and connect objects with vocabulary simultaneously. The implementation of these games indicates that vocabulary learning became more meaningful when students were physically and socially involved in the learning process.

Rather than functioning merely as entertainment, the games created opportunities for repetition, sensory engagement, collaborative interaction, and active meaning construction. Students appeared more enthusiastic and confident during game-based activities because learning no longer depended solely on listening and memorization. This finding supports previous studies emphasizing that movement-based learning and multimodal engagement can improve attention, participation, and motivation among students with special educational needs.

The study also found that communication strategies became more effective when they were combined rather than applied separately. Echolalia, code-switching, gestures, sign language, visual aids, real objects, and movement-based activities continuously interacted during classroom instruction. Students with hearing impairments relied heavily on visual cues and sign language, while students with intellectual disabilities benefited more from repetition and concrete visualization. Students with ADHD demonstrated stronger engagement during physical and game-based activities because movement helped sustain attention and reduce distraction. Meanwhile, students with ASD responded positively to repetitive verbal patterns and predictable classroom routines. These findings indicate that no single strategy was universally effective for all learners. Instead, successful inclusive learning emerged from the interaction between verbal, visual, sensory, social, and motoric forms of communication. This supports the principles of inclusive education, which emphasize that teaching approaches should be adapted to students' diverse needs and communication profiles. The findings therefore extend previous literature by demonstrating how multimodal communication strategies can be practically implemented within English vocabulary instruction for students with diverse special needs in one classroom setting.

Furthermore, the findings underline the importance of social and cultural context in inclusive English learning. The use of Javanese, familiar kitchen objects, and collaborative games created a classroom environment that was culturally accessible and emotionally supportive for students. Students appeared more willing to participate when classroom interaction reflected their daily experiences and linguistic realities. This suggests that meaningful language learning occurs when new vocabulary is connected to students' existing knowledge, environment, and social experiences. The findings of this study contribute both theoretically and practically to inclusive language education. Theoretically, this study strengthens previous research on echolalia, code-switching, visual learning, and multimodal communication by demonstrating how these strategies interact in real classroom practices involving students with diverse special needs. Practically, the findings suggest that teachers in inclusive or special education settings should adopt flexible communication strategies that combine repetition, local language mediation, visual support, physical engagement, and collaborative interaction. Such approaches not only support vocabulary comprehension, but also encourage participation, confidence, and social inclusion during classroom learning activities.

5 Conclusion

This study demonstrates that English language learning for children with special needs (CWSN) requires adaptive, contextual, and student-centered communication strategies. The findings reveal that vocabulary acquisition became more effective when teachers integrated echolalia, code-switching, sign language, visual support, real objects, and movement-based activities into classroom interaction. Rather than functioning independently, these strategies worked simultaneously to help students construct meaning through verbal, visual, auditory, sensory, and social experiences. The study therefore shows that inclusive English learning is not limited to delivering vocabulary content, but involves creating communication practices that accommodate students' diverse cognitive, linguistic, and sensory characteristics.

The findings also highlight the important role of sociocultural context in inclusive education. The use of Javanese through code-switching functioned as a pedagogical bridge that connected unfamiliar English vocabulary with students' everyday linguistic experiences. This indicates that language learning for CWSN cannot be separated from students' social environment, cultural background, and daily communication practices. Meaningful learning occurred when students were able to relate new vocabulary to familiar objects, local language, and real-life experiences.

In addition, the study shows that active and participatory learning environments significantly increased students' engagement and comprehension. Game-based and kinesthetic activities encouraged students to participate physically and socially during learning, making vocabulary instruction more interactive and less monotonous compared to textbook-based instruction. Activities involving movement, repetition, collaboration, and object manipulation helped students maintain attention and strengthened vocabulary retention. These findings reinforce the view that inclusive education should prioritize meaningful participation rather than passive reception of information.

Theoretically, this study contributes to the literature on inclusive language education by emphasizing that multimodal communication strategies should be understood as an integrated learning ecosystem rather than isolated teaching techniques. The study also extends previous research by demonstrating how communication strategies such as echolalia, code-switching, visual learning, and movement-based interaction can operate simultaneously within one inclusive classroom setting involving students with different special needs profiles.

Nevertheless, this study has several limitations. First, the research was conducted in a single special education classroom with a limited number of participants, which may restrict the generalizability of the findings to other inclusive learning contexts. Second, the study focused primarily on vocabulary learning activities, meaning that other aspects of English language learning such as grammar, speaking fluency, or literacy development were not explored in depth. Third, the study emphasized classroom interaction and communication strategies without extensively examining the long-term impact of these strategies on students' language development outcomes.

Therefore, future studies are recommended to explore multimodal pedagogy in broader educational contexts and across different language skills. Further research could also investigate how inclusive communication strategies are implemented in mainstream inclusive schools, compare communication practices across different disability categories, or examine the integration of digital and assistive technologies in English learning for CWSN. In addition, comparative studies involving different sociocultural and linguistic environments would provide deeper understanding regarding how local language, culture, and classroom interaction influence inclusive English education practices.

Disclosure Statement

The author(s) claim there is no conflict of interest.

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