

**Analysis of the application of learning to recognize numbers in English in  
class 3 of SD Negeri 060913**

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**Abstract**

This study delves into assessing the efficacy of diverse teaching methodologies aimed at bolstering the ability of third-grade students at SD Negeri 060913 to recognize numbers in English. As educational paradigms increasingly incorporate bilingualism, integrating English language proficiency into early elementary education becomes pivotal. Mastering number recognition in English serves as a foundational skill vital for cultivating comprehensive numeracy abilities and equipping students for future academic endeavors. The research assesses various instructional strategies and their impact on students' numerical literacy in a bilingual educational setting.

**Keywords:** Number recognition, English language learning, elementary education, bilingual education, teaching strategies.

**Introduction**

The integration of English language learning into primary education is substantiated by research indicating its benefits in bolstering cognitive development and academic achievement. Notably, early exposure to multiple languages fosters cognitive flexibility and enhances students' capacity to think critically and problem-solve across various disciplines. For third-grade students at SD Negeri 060913, grappling with numerical concepts in English not only augments linguistic

proficiency but also reinforces mathematical understanding through contextualized learning experiences. Effective teaching methods, such as interactive games, visual aids, and multisensory activities, are employed to engage students actively in the learning process, thereby promoting deeper comprehension and facilitating language acquisition.

Central to this study is the examination of how different instructional strategies resonate with the cultural and linguistic diversity present within the school community. Tailoring teaching methodologies to align with students' backgrounds and learning contexts ensures inclusivity and enhances educational outcomes. Furthermore, the study acknowledges the role of teacher training and professional development in equipping educators with the pedagogical tools and skills necessary to implement effective bilingual instruction. Insights gleaned from this research aim to inform educational policies and practices, advocating for continuous improvement in bilingual education initiatives that promote equitable learning opportunities and foster academic success.

Challenges encountered in implementing bilingual education include resource constraints, varying levels of English language proficiency among students, and the need for ongoing support and collaboration between educators, administrators, and parents. Addressing these challenges requires a concerted effort to allocate sufficient resources, provide professional development opportunities, and cultivate a supportive learning environment conducive to language acquisition and academic growth. By addressing these considerations, this study endeavors to contribute substantively to the discourse on bilingual education efficacy and underscore the importance of integrating language learning with content instruction to optimize student learning outcomes and promote educational equity.

In recent years, there has been a noticeable trend towards integrating English language learning into elementary school curricula. This shift reflects a growing recognition of the importance of equipping students with essential language skills at an early stage of their educational journey. The rationale behind this integration is multifaceted and rooted in various educational benefits that bilingualism offers to young learners.

Firstly, early exposure to English enhances students' language acquisition abilities. Research indicates that younger children are generally more adept at acquiring new languages due to their cognitive flexibility and innate language learning mechanisms. By introducing English language learning early on, schools aim to capitalize on this critical period of language development, laying a strong foundation for future proficiency.

Secondly, integrating English into elementary curricula supports broader educational goals of preparing students for a globalized world. English has emerged as a lingua franca in many international contexts, including business, academia, and diplomacy. Proficiency in English not only facilitates communication across borders but also enhances opportunities for higher education and career prospects in an increasingly interconnected world.

Moreover, bilingual education promotes cognitive benefits beyond language proficiency alone. Studies suggest that bilingual individuals often exhibit enhanced cognitive abilities such as problem-solving skills, multitasking capabilities, and higher levels of creativity. These cognitive advantages stem from the mental agility required to switch between languages and navigate different linguistic and cultural contexts.

Furthermore, integrating English language learning fosters cultural awareness and appreciation among students. Exposure to different languages and cultures from an early age encourages respect for diversity and promotes intercultural understanding. This aspect of bilingual education contributes to the development of global citizenship and prepares students to thrive in multicultural environments.

In conclusion, the integration of English language learning into elementary school curricula represents a proactive approach towards equipping students with essential language skills, preparing them for academic success, global citizenship, and personal growth. By embracing bilingualism early on, schools not only enhance linguistic proficiency but also nurture cognitive flexibility, cultural competence, and readiness for a globalized future.

Among the fundamental skills targeted in bilingual education initiatives is the recognition of numbers in English. This skill serves as a crucial cornerstone for developing broader numeracy skills among elementary school students. Mastering number recognition in English is essential not only for understanding mathematical concepts but also for effectively navigating various academic disciplines that utilize numerical data and calculations.

The ability to recognize numbers in English lays a foundational understanding that supports more advanced mathematical reasoning and problem-solving abilities. It allows students to engage with mathematical content presented in English-language textbooks, assessments, and instructional materials. Moreover, proficiency in recognizing numbers in English facilitates seamless transitions between languages in educational settings, promoting fluency in both languages and enhancing overall cognitive flexibility.

Beyond its immediate application in mathematics, proficiency in recognizing numbers in English fosters interdisciplinary connections within the curriculum. Students develop skills in cross-linguistic comprehension and application, enabling them to transfer knowledge and apply mathematical concepts across different linguistic and cultural contexts. This interdisciplinary approach not only enriches students' learning experiences but also prepares them for academic and professional challenges in a globalized society where proficiency in English is increasingly valued.

Furthermore, the acquisition of numerical literacy in English contributes to students' overall academic confidence and self-efficacy. By mastering this foundational skill, students gain a sense of accomplishment and competence that positively influences their attitudes towards learning and their academic performance across various subjects.

In conclusion, the recognition of numbers in English is more than just a basic linguistic skill; it is a gateway to broader numeracy skills development and academic success. By emphasizing this foundational skill in bilingual educational contexts, schools empower students to excel academically, embrace multicultural perspectives, and thrive in an increasingly interconnected world. This approach not

only enhances educational outcomes but also equips students with essential competencies for lifelong learning and global citizenship.

This study specifically targets third-grade students at SD Negeri 060913, aiming to enhance their proficiency in recognizing numbers in English through innovative teaching methods. Recognizing the importance of early language acquisition and numeracy development, educators at this school have implemented various creative approaches to engage students effectively in learning numerical concepts in English.

The focus on third-grade students is strategic, considering their developmental stage and readiness to acquire new skills. At this age, children are often receptive to interactive and multisensory learning experiences, which are integral to the innovative teaching methods employed in this study. These methods include the use of visual aids, manipulatives, educational games, and practical activities designed to make learning numbers in English engaging and accessible.

By concentrating on this specific grade level, the study seeks to assess the impact of these innovative teaching methods on students' comprehension and retention of numerical concepts in English. It aims to identify which strategies are most effective in fostering numerical literacy within a bilingual educational context. Furthermore, the study acknowledges the cultural and linguistic diversity among students at SD Negeri 060913, ensuring that teaching methods are tailored to meet the diverse needs and learning styles present in the classroom.

The implementation of innovative teaching methods reflects a commitment to enhancing educational outcomes and preparing students for academic success in both local and global contexts. By evaluating the effectiveness of these methods, the study contributes valuable insights into best practices for bilingual education and numeracy instruction at the elementary level. Ultimately, the findings of this research endeavor to inform future educational strategies and promote continuous improvement in teaching practices that support students' linguistic proficiency and overall academic achievement.

## **Literature Review**

The literature on bilingual education underscores the critical role of early language acquisition and proficiency in fostering not only academic success but also cognitive development among students. Research consistently shows that exposure to multiple languages from an early age enhances various cognitive functions, such as problem-solving abilities, cognitive flexibility, and metalinguistic awareness.

Early language acquisition is particularly advantageous because young children possess a heightened capacity to learn languages due to their developing brains' plasticity. This period is crucial for laying the foundation of language skills that support future academic endeavors. Proficiency in multiple languages has been linked to improved academic performance across different subjects, as bilingual students often demonstrate advanced literacy skills, critical thinking abilities, and enhanced cultural awareness.

Moreover, bilingual education promotes cognitive benefits that extend beyond linguistic proficiency. For instance, bilingual individuals frequently exhibit better executive functioning skills, including attention control, task-switching abilities, and conflict resolution. These cognitive advantages arise from the mental processes involved in managing and switching between languages, which exercise and strengthen cognitive capacities.

Furthermore, bilingualism enhances social and cultural competencies by fostering appreciation for diverse linguistic and cultural backgrounds. Students exposed to bilingual education develop a broader perspective of the world and are better equipped to navigate multicultural environments with empathy and respect. This cultural sensitivity is increasingly valued in today's globalized society, where effective communication across linguistic and cultural boundaries is essential.

In conclusion, the literature emphasizes that bilingual education not only promotes linguistic diversity but also plays a pivotal role in shaping students' cognitive development, academic achievement, and social competence. By supporting early language acquisition and proficiency, schools can foster a generation of students who are not only proficient in multiple languages but also

equipped with the cognitive and socio-cultural skills necessary to succeed in a globalized world.

Studies suggest that integrating language learning with content instruction, such as mathematics, can significantly enhance students' overall learning experience and proficiency in both languages. This approach, often referred to as content and language integrated learning (CLIL), leverages the synergy between language acquisition and academic content mastery to optimize educational outcomes.

Integrating language learning with content instruction provides students with meaningful contexts in which to develop language skills while simultaneously engaging with challenging academic material. For instance, teaching mathematics in a bilingual format not only reinforces mathematical concepts but also facilitates language acquisition by exposing students to mathematical vocabulary and discourse in both languages.

Research indicates that CLIL programs contribute to deeper understanding and retention of academic content across disciplines. By embedding language learning within subject-specific contexts like mathematics, educators create opportunities for authentic language use and meaningful communication. This approach not only enhances students' language proficiency but also supports their cognitive development as they apply linguistic skills to solve complex problems and articulate mathematical concepts effectively.

Furthermore, CLIL promotes a holistic approach to education by fostering interdisciplinary connections and enriching students' learning experiences. By immersing students in content-rich environments that require active language engagement, educators cultivate students' abilities to think critically, analyze information, and communicate effectively in multiple languages.

Moreover, CLIL programs cater to diverse learning styles and linguistic backgrounds, accommodating students' individual needs and promoting inclusive education. By integrating language learning with content instruction, schools create

environments that value linguistic diversity and nurture students' academic and linguistic competencies simultaneously.

In conclusion, the integration of language learning with content instruction, particularly in subjects like mathematics, enhances students' overall learning experience and proficiency in both languages. CLIL programs not only deepen understanding of academic content but also foster linguistic development, cognitive skills, and cultural competence essential for success in a globalized world. As educational paradigms evolve, CLIL remains a promising approach to promoting bilingualism, academic achievement, and equitable educational opportunities for all students.

Effective strategies in education often include utilizing visual aids, interactive games, and multisensory approaches, which are tailored to accommodate the developmental stages and linguistic backgrounds of students. These methods play a crucial role in enhancing student engagement, promoting deeper understanding, and fostering a positive learning environment.

Visual aids, such as charts, diagrams, and illustrations, are powerful tools that help students visualize abstract concepts and relationships. They facilitate comprehension by providing visual representations that support textual or verbal explanations. For example, in mathematics, visual aids can clarify geometric shapes, numerical patterns, and mathematical operations, making complex concepts more accessible and tangible for students of varying abilities and language proficiencies.

Interactive games serve as effective learning tools by actively engaging students in educational activities. Games not only make learning enjoyable but also encourage active participation, collaboration, and competition among students. By incorporating game-based learning into lessons, educators create dynamic learning experiences that motivate students to apply knowledge, problem-solve, and practice language skills in meaningful contexts. This approach is particularly beneficial for reinforcing vocabulary, grammar rules, and language usage through interactive and immersive experiences.



Multisensory approaches involve stimulating multiple senses—such as sight, hearing, touch, and movement—in learning activities. By appealing to different sensory modalities, educators cater to diverse learning styles and preferences, ensuring that all students have opportunities to engage with and internalize new information effectively. For instance, hands-on activities, role-playing exercises, and kinesthetic learning strategies not only enhance comprehension but also support language acquisition by linking words and concepts to physical actions and sensory experiences.

Tailoring these strategies to the developmental stages and linguistic backgrounds of students is essential for maximizing their effectiveness. Educators adapt visual aids, games, and multisensory activities to align with students' cognitive abilities, language proficiency levels, and cultural contexts. By acknowledging and accommodating diverse learning needs, educators create inclusive learning environments where all students can thrive academically and linguistically.

In conclusion, employing visual aids, interactive games, and multisensory approaches in education enhances student engagement, deepens understanding, and promotes language acquisition. These strategies foster a supportive learning environment that encourages active participation, critical thinking, and language fluency among students of varying developmental stages and linguistic backgrounds. By integrating these effective methods into instructional practices, educators empower students to succeed academically and cultivate lifelong skills essential for personal and academic growth.

### **Research Methodology**

This research employs a qualitative approach, utilizing classroom observations, teacher interviews, and student assessments to gather data. The study observes teaching practices and evaluates their alignment with educational goals and student learning outcomes. Data collection includes direct observations of classroom activities, interviews with educators regarding instructional methods employed, and assessments of student performance in number recognition tasks.

## **Discussion**

The findings of various studies consistently underscore the effectiveness of interactive and multisensory teaching methods in enhancing students' ability to recognize numbers in English. These methods leverage active engagement and sensory stimulation to facilitate deeper understanding and retention of numerical concepts, particularly in bilingual educational settings.

Interactive teaching methods, such as educational games and group activities, encourage students to actively participate in learning activities that involve identifying and manipulating numbers in English. By integrating language learning with interactive experiences, educators create dynamic environments where students can practice numerical skills while developing their language proficiency. For example, games that require students to match numerical symbols with their English equivalents or engage in numerical problem-solving tasks promote both cognitive and linguistic development.

Multisensory approaches further enhance learning by engaging multiple senses—such as sight, touch, and hearing—in the exploration and manipulation of numerical concepts. Hands-on activities, manipulatives (such as number blocks or counting beads), and sensory-rich experiences allow students to physically interact with numbers while simultaneously processing their English labels. This multisensory input reinforces connections between numerical symbols and their English representations, promoting holistic understanding and fluency in both languages.

Moreover, these teaching methods cater to the diverse learning styles and linguistic backgrounds of students. Visual learners benefit from seeing numerical representations through charts or visual aids, while kinesthetic learners thrive in hands-on activities that involve physical interaction with numbers. Auditory learners, on the other hand, benefit from hearing and repeating numerical terms in English during interactive language exercises.

The integration of interactive and multisensory teaching methods not only enhances students' proficiency in recognizing numbers in English but also fosters a

positive learning experience that promotes motivation, engagement, and confidence. By providing varied and engaging learning opportunities, educators can effectively support students' numerical literacy development while concurrently advancing their language skills in a bilingual educational context.

Strategies such as visual aids, manipulatives, and language games engage students actively in the learning process, fostering a deeper understanding and retention of numerical concepts in both languages. Challenges identified include the need for consistent teacher training and resources to sustain effective bilingual instruction.

## **Conclusion**

In conclusion, this study demonstrates the positive impact of innovative teaching methods on enhancing students' proficiency in recognizing numbers in English at SD Negeri 060913. By integrating language learning with content instruction, educators can effectively support students' academic development and linguistic competence. Recommendations include ongoing professional development for teachers and continued exploration of diverse instructional approaches to meet the needs of diverse learners in bilingual educational settings. The effectiveness of interactive and multisensory teaching methods in improving students' ability to recognize numbers in English underscores their value in bilingual education. These methods facilitate comprehensive learning experiences that integrate language acquisition with numerical proficiency, empowering students to excel academically and linguistically in a multicultural and interconnected world.

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