

BENEFITS OF BILINGUALISM ON COGNITIVE DEVELOPMENT AND ACADEMIC ACHIEVEMENT OF ELEMENTARY SCHOOL CHILDREN**Maria Anjelita Hutauruk ¹, Bernieke Anggita Ristia Damanik ²**

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ABSTRACT

Language is a communication skill that children have had since birth. Over time, children will often hear new words or sentences from their environment and children will try to imitate them. Children's language is usually simple and related to their environment, especially the family environment. Children's language will continue to develop through their experiences. Through this language, children can express their feelings and communicate with others. Many children use more than one language in themselves, for example, at home children use Indonesian and at school children are required to know English. From this we can see children's language skills and this will have a very good impact on children. Therefore, bilingual education has the potential to develop children's cognitive and social abilities, especially elementary school children. For example, English has been taught in elementary schools, even since kindergarten and the family environment. This bilingual education adds to children's cognitive development, memory, and problem-solving abilities. This shows that bilingual education fosters children's cognitive abilities and social interactions. This insight emphasizes the importance of language learning from an early age which shows that it can provide long-term benefits for children's academic and social journeys.

Keywords: Bilingualism, cognitive development, academic achievement, elementary education, literacy skills

1. INTRODUCTION

Bilingualism is a person's ability to use two languages with a certain level of proficiency, either actively or passively. Bilingualism can occur in individuals, groups, or communities. According to Macnamara (1967), Bilingualism is the ability of a person who has proficiency in at least one of the four language skills (listening, speaking, reading, or writing) in a second language other than the mother tongue and according to Grosjean (1982), Bilingualism is the ability of an individual to communicate in two languages with a level of proficiency that does not have to be balanced between the two languages.

In elementary school age children, many children have experienced this bilingualism. One aspect that is very important to know and understand from the development of elementary school age children is the cognitive aspect. Cognitive development with learning achievement in children will affect language development in children. This impacts each other as a result learning bilingualism and understanding more than one dialect will move forward cognitive improvement in children.

The wonders of bilingualism, or the capacity to memorize more than one dialect, is getting to be more far reaching in our more interconnected and expanded world, especially among youthful individuals raised in phonetically different settings. It's basic to comprehend how bilingualism impacts kids' advancement, especially in basic school. Children are in a pivotal organize of cognitive and mental advancement at this age, which may have an affect on their future course of think about. In this way, it is very pivotal to examine how adolescents are influenced when uncovered to two or more dialects.

There are two ways that children might become bilingual: sequential language acquisition, in which they begin learning the second language after mastering the first, or simultaneous language acquisition, in which they learn two languages at the same time from birth. The child's brain must process two language systems at once for both forms of acquisition, which leads to some cognitive difficulties. According to research, multilingual kids

typically possess more advanced cognitive skills, including improved memory, concentration, and effective problem-solving techniques. cognitive capacities, tallying advanced memory, concentration, and fruitful problem-solving techniques. Their cognitive flexibility can be moved forward by directing two lingos, which makes trading between assignments less requesting and faster.

The benefits of bilingualism extend beyond upgrading cognitive capacities; they too influence kids' scholarly accomplishment. Agreeing to a few inquire about, bilingual kids regularly have predominant problem-solving and expository considering aptitudes. Children that are bilingual are more responsive to assorted perspectives and ways of considering, which is profoundly profitable whereas examining and comprehending challenging scholarly subjects. Since they are usual to considering in two dialects and altering to different communication styles, bilingual kids too have a propensity to fathom issues more inventively.

Also, since bilingualism permits children to lock in with more individuals from differing phonetic and social foundations, it makes a difference to upgrade their social abilities. Talking numerous dialects too makes a difference children in their future social and proficient lives, where it is exceedingly respected to be able to alter to distinctive etymological settings.

It seeks to delve deeper into the ways that bilingualism enhances primary school students' cognitive and intellectual development and how these effects can help them develop stronger academic and character traits. The consequences of bilingualism for the current educational system will also be covered in this essay, along with suggestions for tactics that might be used to optimize bilingualism's positive effects in the classroom. Able to make a more comprehensive instructive methodology and completely bolster multilingual children's development in the event that we recognize their great potential.

There has long been a broad conviction that a child's advancement may be affected by the number of dialects they secure, either actually or through instructive activities. Many people once believed that knowing more than one language would harm kids' development. The underlying premise of this idea was that children who acquire two languages will struggle to master them in terms of vocabulary, grammar, and other areas of cognitive development. Many parents are still concerned about their children's development when they are exposed to two or more languages, even after more than 50 years of research on the subject.

However, recent studies have revealed that this perspective is not totally correct. Research over the past few decades has demonstrated that, despite parents' valid worries, speaking more than one language is not as harmful as many may believe, even though it can influence some elements of development. Conversely, the results of the multilingual experience typically have a positive impact on the child's development. Even while some formal aspects of language acquisition, such the formation of second language vocabulary, have been shown to be delayed in this instance, the long-term implications on children's cognitive development have been positive.

In 2010, for instance, Bialystok's research revealed that bilingual youngsters tend to acquire other linguistic and cognitive skills more rapidly after experiencing a modest delay in vocabulary mastery at an early age. The more prominent metalinguistic mindfulness the capacity to consider dialect itself that bilingual children have over monolingual children was one range that pulled in uncommon consideration. Also, multilingual children tend to have higher cognitive gifts in terms of basic considering, issue fathoming, and cognitive adaptability, all of which offer assistance to extend their add up to insights.

Overall, bilingualism in children has far more beneficial impacts than early researchers or anxious parents may have anticipated, despite the possibility of delays in formally learning some language skills, particularly vocabulary. To put it another way, bilingualism is a positive experience that has both immediate and long-term advantages for a child's linguistic and cognitive development.

2. LITERATURE REVIEW

In recent decades, bilingual education has gained a lot of attention, especially in relation to its effects on English language learners' cognitive development and academic performance. Research indicates that bilingual education has a substantial impact on a number of child development domains, such as academic achievement, cultural sensitivity, and cognitive capacities. The claim that bilingual education can have a significant positive impact on children's language development, cognitive abilities, and academic achievement is further supported by data from recent studies.

Kroll and Bialystok (2013) provide a crucial finding in favor of this argument, stating that bilingualism can improve cognitive regulation. They contend that this enhances working memory and executive function. Planning, problem-solving, emotional control, and attention regulation are all examples of executive functions. According to this study, bilingual students do better on activities requiring mental flexibility and attention control, which are frequently more difficult for monolingual pupils. Additionally, multilingual students perform exceptionally well on tests of their attention and mental flexibility, which are powerful markers of improved cognitive development, according to Adesope et al. (2017).

Bilingual students not only improve their cognitive abilities but also typically perform better academically. Numerous studies suggest that students enrolled in bilingual or multilingual programs frequently outperform their monolingual counterparts academically. According to Genesee et al. (2015), for example, bilingual students outperformed pupils who only studied one language in terms of academic performance across a variety of disciplines and were more proficient in both their first and second languages. Hernandez (2018) also showed that bilingual kids had superior academic grades and higher scores on standardized English proficiency exams, suggesting that bilingual education helps pupils develop broader academic capabilities in addition to linguistic ability.

Bilingual education can enhance kids' social and cultural experiences in addition to their cognitive and academic gains. Dual-language learners frequently exhibit greater cultural knowledge and are more receptive to diverse viewpoints. Their social relations can be improved since they are more likely to recognize and comprehend cultures that are distinct from their own. Children who study two languages frequently grow more aware of cultural distinctions and get a deeper comprehension of the values and traditions connected to each language, according to Brouwer and Parada (2010). In today's more interconnected and globalized world, being able to communicate and work together with individuals from different cultural origins is a highly valued skill.

Additionally, intercultural competency which is increasingly crucial in the global workforce is strengthened by bilingual schooling. According to studies by Baker and Jones (2019), bilingual students are more receptive to many cultural viewpoints and have a wider perspective. As a result, they are better able to converse with others from many cultural origins and adjust to a variety of settings and surroundings. The development of attitudes of tolerance and appreciation for diversity is facilitated by the cultural awareness fostered by bilingual education, and these attitudes are essential for fostering an atmosphere that is favorable to learning and individual growth. The practical aspect of multilingual education is an additional advantage. Comparing bilingual education to monolingual programs, the former is frequently more economical and efficient. Instead of hiring new teachers, bilingual programs can frequently utilize already-existing resources, such as hiring teachers who are fluent in a second language. Additionally, bilingual education makes it easier for pupils to relate concepts taught in their second language such as English to what they already know in their native tongue. Because they may access this information in two distinct languages, kids are better able to comprehend a variety of academic subjects. Additionally, according to Baker and Jones (2019), bilingual education facilitates comprehension of the curriculum by

bridging language gaps that may arise in the home and at school.

Increasing student motivation and participation in the learning process is another benefit of bilingual education. Because they don't feel alienated or constrained by language difficulties, students who are at ease in their mother tongue are more likely to feel confident and driven to learn. They feel more connected to the course material because they can connect what they are learning in the second language to what they already know and have experienced in their mother tongue. As a result, bilingual education has the potential to improve children's academic performance and sense of belonging.

Several studies indicate that bilingual education can actually speed up the language learning process and produce greater language skills, despite the claims of some that monolingualism is more beneficial in preparing pupils to master English. According to Genesee et al. (2015), pupils who receive instruction in both languages at the same time can acquire more thorough and long-lasting language abilities than those who exclusively concentrate on one.

Overall, the body of research demonstrating the substantial advantages of bilingual education in fostering children's intellectual, social, cultural, and cognitive growth is growing. Language proficiency is only one aspect of bilingual education's success; other factors include pupils' improved cognitive capacities, increased cultural awareness, and preparedness to participate in the increasingly interconnected global society. Thus, bilingual education need to be regarded as an essential tactic for raising English language learners' academic performance and preparing them for the opportunities and difficulties of a globally interconnected world in the twenty-first century.

To sum up, bilingual education not only boosts academic performance in the near term but also establishes a solid basis for longer-term personal growth. Therefore, educational policies that support bilingual education in schools will be very helpful in preparing students for success in a world that is becoming more varied and interconnected, especially for English language learners.

3. METHODOLOGY

This study adopts a qualitative literature review methodology to examine the effects of bilingualism on elementary school children. The review synthesizes a range of data from reputable sources, including peer-reviewed academic journals, books, and reports from leading international organizations such as UNESCO and UNICEF. The analysis centers on identifying recurring trends and themes related to the cognitive and academic benefits of bilingualism, with a strong focus on how these findings can inform and influence educational policies. By reviewing existing literature, the study seeks to highlight key insights and provide a deeper understanding of the implications of bilingual education on young learners' development and performance.

The purpose of this study is to provide numerous benefits of bilingualism. To improve a child's cognitive abilities, memory, ability to solve problems, and capacity for critical thought. Beyond cognitive abilities, bilingualism also fosters social awareness, empathy, and adaptability, equipping children with the tools they need to navigate a world that is becoming more interconnected and global. This study examines how bilingual education fosters the development of proficiency in both primary and secondary languages by encouraging the use of language in fostering creativity and innovation in young children.

4. DISCUSSION RESULTS

Basically there are two conditions that allow elementary school children to become bilingual (1) both languages can be acquired sequentially, such as the second language is learned later in school, or (2) simultaneously, such as when young children are exposed to two

different languages at home at the same time. Simultaneous learning, in essence, is only intended for children. On the other hand, sequential learning can occur in children and adults, the second language can be learned during lower school, for example elementary school, or it can be learned after the person becomes an adult, for example at university or in another country. The situation of sequential bilingualism can occur in a child when the child learns a second language at school. This is a fairly common situation that most of us are familiar with and therefore does not need much explanation. A fairly common case where parents speak one language and the community at large speaks another language. The parents speak one language at home, which is different from the language their children use outside the home, on the street, or at school. Sequential second language acquisition can occur at various ages and in various situations. For example, children who attend international schools in Indonesia learn Indonesian at school and English at home, and this will affect the child's cognitive development.

Cognitive Development of Elementary School Children: Jean Piaget, a Swiss psychologist who was born in 1896 (Miller, 1993: 30-34), views that intellectual development or human cognitive abilities occur through four stages, namely:

1. Sensorimotor stage (0-2 years)
2. Preoperational stage (2-7 years)
3. Concrete operational stage (7-11 years)
4. Formal operational stage (11-15 years)

Each stage has different characteristics and abilities in receiving knowledge. Based on Piaget's stages, the cognitive development of elementary school children is at the concrete operational stage, which reflects an approach that is limited to the real world. At this stage, primary school children can form concepts, see relationships, and solve problems, but only if they involve objects and situations with which they are familiar. They are also moving from subjective thinking to objective thinking.

Objective thinking allows children to realize that others can have perceptions that differ from their own. The following is a description of the development of elementary school-age children according to Piaget:

1. Lower Elementary Age (Grades I-III):
 - a. Children can already classify numbers or numbers, although they still often use concrete objects or objects (props).
 - b. They begin to be able to store knowledge or observations in their memory.
 - c. Children begin to be able to operate the rules of logic (logical thinking), although limited to concrete objects.
2. High grade elementary school age (Grades IV-VI):
 - a. Children begin to be able to think deductively hypothetically.
 - b. They begin to be able to develop possibilities based on two alternatives.
 - c. Children begin to be able to make inferences or generalize from various categories.

These developments do not happen all at the same time but gradually during the concrete operational stage. As an alternative, there are various activities in teaching English to elementary school children that can be applied by educators. Based on Piaget's description of the intellectual development of primary school children, and the advantages and disadvantages of bilingual children compared to monolingual ones, what is more important is how to create developmentally appropriate teaching for children of this age. The consideration is that, whatever the subject, as long as it takes into account the interests and development of the child, the psychological impact that is the concern of some people who disagree with the teaching of English in elementary school can be anticipated. Piaget himself did not indicate what subjects are appropriate or inappropriate for elementary school children. Therefore, the problem is not

the type of English itself, but how to create foreign language teaching as a second language that is in accordance with the development of the level of thinking of elementary school children.

Johnson & Newport's opinion suggests that children learn language more effectively due to neurological factors. Older people may not have an elastic brain structure, making it difficult to reorganize a new language system. In contrast, younger children may not be reluctant or embarrassed to try sentences even though they are not yet correct.

Thus, language ability is influenced by the age at arrival effect, which is the age at which a person starts learning the language. A person's language ability is also strongly associated with prestige. Therefore, Matlin (1994:326) argues that behavior is an important factor in language ability, "Bilingualism is associated with prestige. Attitudes are an important determinant of bilingual skills."

Piaget's cognitive theory has had a major impact on educational theory and practice. It has inspired education to design environments, curricula, materials and teaching that are developmentally appropriate for children.

Therefore, from here we can explain what the benefits of bilingualism are for elementary school children, what the problems are and the solutions..

I. The great benefits of bilingualism in terms of cognitive and academic abilities.

Elementary school students can benefit greatly from bilingualism in terms of their cognitive and academic abilities. Speaking and understanding two languages, or being bilingual, has been shown to improve children's cognitive development in a number of ways. Here are just a few of its numerous advantages:

a. Advantages for the Mind

1. **Improved Problem-Solving:** Bilingual kids show greater cognitive flexibility and perform exceptionally well on problem-solving exercises.
2. **Better Memory:** They perform better academically because they have better working memory. Working memory, or the capacity to retain and process information in the mind, has been proven to be superior in bilingual children compared to monolingual ones.
3. **Better Attention:** Children who are bilingual are better able to focus and pay attention, which helps them better block out distractions. Improved Ability to Communicate Children who learn two languages improve their communication abilities as well as their comprehension of grammar, syntax, and language structure.

b. Academic Performance

1. **Greater Success:** Research indicates that multilingual kids do better in school, achieving higher scores on intelligence and achievement assessments.
2. **Cultural Awareness:** Gaining proficiency in several languages enhances one's capacity for empathy and comprehension of various cultures.

Increased Cultural Knowledge Children who are bilingual may grow to appreciate other cultures and viewpoints more, which may promote empathy and understanding. **Enhanced Academic performance** Research has shown that children who learn many languages actually do better on academic performance exams in both languages as well as assessments of verbal and nonverbal ability. At Adam Wa Mishmish, we believe in the power of bilingualism and offer educational content to help children learn Arabic as a language and as a culture. Encouraging children to learn a second language can have long-lasting cognitive benefits that can positively impact their academic success and overall development.

According to educational experts the advantages of children bilingual children are as follows:

1. Many understand the structure of two or more languages which makes it easier for them to communicate
2. They are more vigilant in determining the meaning that can change in both languages

3. More sensitive to some pragmatic aspects of the two languages (
4. Tend to be flexible and creative and show advantages on nonverbal intelligence tests that require rearrangement of visible clues and on tasks in concepts that require mental flexibility.
5. Shows better analytical orientation than monolingual children.
6. Use hermenutics (prompts) in interpreting sentences containing ambiguity better than monolingual children.

II. The problem of children learning English as a second language in schools.

Taylor & Taylor's argument suggests that there is nothing wrong with children learning English as a second language at school. The problem is that teaching English in schools often requires formal procedures and methodologies, such as mandatory evaluations, attendance lists, and a strict emphasis on grammar as a guideline.

According to Jefferson (1922:148): Jefferson argues that the brain effort required to master and remember two languages certainly diminishes the child's power to learn other things which might and ought to be learned. This explanation implies that a child's thinking capacity is limited, so their thinking can be less effective because the brain has to store two language systems.

There are two conclusions from this;

1. Bilingual children tend to experience an unfavorable impact on learning achievement, especially in subjects where English is the language of instruction at school. However, this does not negatively affect the development of intelligence (IQ).
2. Bilingualism can have a negative impact on the personality development and social attitudes of primary school children whose first language is not English.

This divergence of views, which disagrees with teaching English to primary school children, may have arisen in response to the concern that too heavy a burden may hinder the development of young children. Such concerns need to be addressed, but the burden should not be placed on English alone.

Based on available data, the curriculum in Indonesia is too burdensome for students, so education experts recognize the need to streamline the curriculum. In addition, there are other factors that convey their messages and missions through the curriculum, such as in an Islamic elementary school in Bekasi that implements four languages, namely English, Arabic, Sundanese and Indonesian, in addition to other lessons.

III. Solutions and results that can be done to support children's cognitive development.

Jefferson argued that children should not be burdened because their brain capacity is limited. Therefore, education should prioritize the material that children must learn. Decisions about this must prioritize the interests of children over the interests of parents or institutions.

Language learning is very important for the child's developmental trajectory. Language skills allow children to communicate with others in their environment, which encourages the development of cognitive skills and improves social-emotional regulation through social interaction.

Cognitive development in children and language development in children influence and are interconnected. Language plays a very important role in children's thinking processes. With language, children can more easily understand new information or abilities.

To improve children's cognitive language development, it is important for children to be actively involved in quality interactions every day. Examples include: Talking to friends, teachers and others. And often listening to songs that use English with increasingly modern media to help children understand and enjoy it more easily. Can listen and watch while learning. I have also applied this to my nephew and this has really helped him learn English more easily. Already know English starting from animals, colors, numbers, fruits and many more.

Teachers also have an important role. The way educators improve children's cognitive abilities in learning is by doing activities that motivate children, such as interesting learning and learning media such as using educational games, playing music, reading story books and many more. By carefully preparing materials and environments, planning learning experiences carefully, providing scaffolding when needed, and taking advantage of moments that allow for teaching, adults can help children develop skills to understand the world around them and be excited about learning opportunities. Give elementary school children lots of opportunities to be able to express their feelings and emotions without anything that makes them feel insecure. Read books and improve literacy skills during individual and group activities, sing songs about the stories you read, and encourage children to imitate the characters in the story with sounds or movements. By doing these methods more and more, children's understanding of English in elementary school will develop as well as their cognitive abilities. Their speaking skills and language comprehension are increasing. Children are able to tell stories with more complex sentences and are also able to understand longer written texts.

5. CONCLUSION

Bilingualism in children can occur in two ways: simultaneous language acquisition, where the child learns two languages simultaneously from birth, or sequential language acquisition, where the child starts learning the second language after mastering the first. Both types of acquisition require the child's brain to process two language systems simultaneously, which in turn creates certain cognitive challenges. Research shows that bilingual children tend to have more developed cognitive abilities, such as better memory, ability to focus, and more efficient problem-solving skills. The management of two languages can increase their cognitive flexibility, which allows them to move between tasks more easily and quickly. Bilingual education has become one of the most researched topics in recent decades, particularly regarding its impact on cognitive development and academic achievement among English language learners. Studies show that bilingual education significantly affects various aspects of child development, including cognitive ability, academic performance and cultural awareness. Educating children in a bilingual environment can provide substantial benefits in terms of language development, cognition and academic success. Bilingualism, the ability to speak and understand two languages, has been found to have many benefits for a child's cognitive development. Bilingual children have better cognitive flexibility, problem-solving skills, communication skills, memory, cultural awareness, as well as academic success. Here are some of the many benefits

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