THE IMPACT OF BILINGUALISM ON CHILDREN'S ABILITIES

Muhammadyunusova Zebo Ulug'bek qizi
gulhayomominova219@gmail.com
Faculty of English Philology, Fergana State University, Fergana, Uzbekistan
Supervisor: **Adxamova Mahsuma Akmaljon qizi**
Fergana state university, EFL teacher
mahsuma423@gmail.com

Abstract. *This scientific article analyzes the positive changes in the thinking processes, problem-solving approaches, and attention span of children who have learned more than one language. Based on research, best-selling books, and theoretical sources, it provides an in-depth look at how multilingualism plays a role in developing creative thinking, flexible thinking, and strong cognitive control in children. Bilingualism is viewed not only as a means of communication, but also as a means of complex brain activation. The article also highlights the benefits of self-education, independent learning, and different ways of perceiving the world through language.*

Keywords: *bilingualism, multilingualism, children's thinking, creative thinking, attentional control, problem solving, metacognition, brain flexibility*

Introduction

In today's globalization and technological progress, multilingualism is becoming an important indicator not only of cultural wealth, but also of human intellectual potential. Especially in childhood, the acquisition of several languages has a significant impact on the human brain and thinking processes. If historically multilingualism was a necessity for rulers, scientists and diplomats, now this situation has become widespread: as a result of multinational societies, international education systems, and migration, the younger generation is growing up in a multilingual environment. This situation raises new scientific questions: how does multilingualism shape children's thinking? How does it affect their ability to concentrate, think critically, solve problems and be creative?

In recent years, research in the fields of psycholinguistics, neuroscience and educational psychology has shown that multilingualism has a positive effect on cognitive development. This article provides an in-depth analysis of this topic: the

impact of multilingualism on children's thinking is comprehensively examined through theoretical sources, experimental studies, and real-life examples.

Methodology

A comprehensive approach was used in writing the article. Initially scientific articles on the topic were reviewed. These articles were selected from prestigious journals such as Nature, Science, and Frontiers in Psychology. The works of world-renowned scientists such as Ellen Bialystok, Antonella Sorace, and Judith Kroll were also analyzed.

In addition, popular books (Goleman's "Emotional Intelligence," Kwik's "Limitless") served to provide a deeper understanding of the ideas conveyed to an international audience in simple language about multilingualism and brain flexibility. More than 20 lectures available on YouTube and TED Talks were studied, and their scientifically based parts were included in the analysis.

Comparative (between monolingual and bilingual children) and contextual (social environment, school, family) analysis methods were used as methods. The results were substantiated by statistical data.

Results

Executive functions, that is, planning, impulse control, focusing attention, and performing tasks in turn are among the most important cognitive components of children's thinking. These skills are formed faster in multilingual children. In a study conducted by Bialystok (2015), bilingual children performed 34% higher on selective attention tests. This means that they are able to get away from distractions faster and return to the main task.

Another example: Kovács and Mehler (2009) in an experiment on 7-month-old infants found that children raised in a multilingual environment mastered new rules and patterns faster. This suggests that the brain is developing executive functions even before language is fully developed. Since multitasking - performing several tasks at once - is a daily occurrence for multilingual children, their brains are constantly challenged.

Problemsolving and creativity: Multilingualism broadens a child’s worldview. Each language is not just a set of words, but also its own system of thought and culture. For example, while German has a lot of explicit planning expressions, Spanish emphasizes emotional states. This develops a multilingual child’s diverse approaches to problems. In a study by Leikin (2014), multilingual children proposed 3 times more innovative solutions on a divergent thinking test. Such children are able to look at problems not only from a verbal, but also from a symbolic, contextual, and

aesthetic perspective. These qualities are especially valued in the modern world: startups, scientific developments and creative projects require multi-approach thinkers.

Neurological basis: Structural and functional changes in the brain are very actively observed in multilingualism. A study by Mechelli et al. (2004) proved that the gray matter density in the brains of multilingual people is higher. This substance is responsible for information processing and decision-making.

Also, the strength of neural connections (white matter integrity) is higher in multilingual children. MRI technologies have shown that the fronto-parietal areas, that is, the areas that control attention are more active in the brains of bilingual children. This not only improves thinking, but also improves emotional control, self-control, empathy, and even stress resistance.

Discussion

The above results reveal the profound impact of multilingualism on children's thinking. But this impact is not only neurobiological or psychological - it is also directly related to sociocultural factors. For example, in what environment does the language learning process take place? Is it an obligation for the child or a natural need? Family relationships, the quality of education, and the attitude of society towards multilingualism all play an important role.

Multilingual children not only think better, but also show high results in listening to others, empathy, and maintaining intercultural balance. This increases their leadership potential in the future. Also, multilingualism is not just about knowledge, but also about looking at life from a different perspective. Through each language, the child discovers himself anew. He harmonizes different worldviews, cultures, and thought systems in his mind.

However, it should not be forgotten that for multilingualism to be a success, it must be formed in a free, loving environment, not under pressure. Otherwise, the child will perceive this language as a burden, which can have the opposite effect.

Conclusion

Multilingualism is not just about knowing a language. It is a way of thinking. It is a child's way of perceiving the world. Scientific research, real-life examples and neurological observations show that multilingual children are more thoughtful, attentive, and have a broader approach to problems. They are formed as creative, flexible, critical thinkers and emotionally intelligent individuals.

Modern education systems must make multilingualism a priority. This not only increases cognitive potential, but also develops intercultural tolerance, cooperation

and a global perspective. Supporting every child's right to be multilingual is the most important investment in the future of modern society.

References

1. Bialystok E., Craik F. I. M., Luk G. Bilingualism: Consequences for mind and brain. – Amsterdam: Elsevier, 2012.
2. Thomas E. M., Gathercole W. C. M. The Handbook of Bilingualism. – Oxford: Blackwell Publishing, 2007.
3. Hakuta K. Mirror of Language: The Debate on Bilingualism. – New York: Basic Books, 2009.
4. King K., Fogle L. Raising Bilingual Children: Common Parental Concerns and Current Research. – Amsterdam: John Benjamins Publishing Company, 2017.
5. Diamond A. Executive Functions. – Palo Alto: Annual Reviews, 2013.
6. Dweck C. S. Mindset: The New Psychology of Success. – New York: Random House, 2006.
7. Tse L. Why Don't They Learn English? Separating Fact from Fallacy in the U.S. Language Debate. – New York: Teachers College Press, 2001.
8. Chomsky N. Language and Mind. – Cambridge: Cambridge University Press, 2006.
9. Cameron D. Verbal Hygiene. – London: Routledge, 1995.
10. Omonturdiyev A. Brief euphemistic dictionary of the Uzbek language. - Tashkent: Science, 2006.