

**MORE THAN ONE LANGUAGE: IMPLICATIONS FOR COGNITIVE
DEVELOPMENT**

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Annotatsiya

Maqolada ikki tillilikning kognitiv rivojlanish va ta'lim natijalariga ta'siri oldingi tadqiqotlarga asoslanib ko'rib chiqiladi. Akademik tadqiqotlarning dolzarbligini aniqlash uchun 2000 va 2025 yillar oralig'ida nashr etilgan ilmiy jurnallar va ilmiy kitoblardan tegishli tadqiqotlarni tanlash orqali adabiyotni sifatli ko'rib chiqish usuli qo'llanildi. Tekshiruv ikki tillilik va ijro etuvchi hokimiyat, xotira va muammolarni hal qilish qobiliyatlari kabi muhim kognitiv qobiliyatlar o'rtasidagi bog'liqlikka qaratilgan. Oldingi tadqiqotlar shuni ko'rsatdiki, ikki tilli odamlar bir tillilarga qaraganda ko'proq kognitiv moslashuvchanlikka ega va o'z ongini yaxshiroq nazorat qiladilar. Bundan tashqari, ikki tillilik, ayniqsa, tillar bilan bog'liq bo'lgan fanlarda akademik ko'rsatkichlarni oshiradi. Topilmalar bir nechta tillarni o'rganish o'quvchilarni chalkashtirib yuborishi mumkinligi haqidagi oldingi e'tiqodlarga ziddir. Maqolada ikki tillilikning ahamiyati ta'kidlanadi va uning globallashtirgan jamiyatda kognitiv va ta'limga qaratilgan afzalliklari ta'kidlanadi.

Аннотация

В статье рассматривается влияние билингвизма на когнитивное развитие и результаты обучения, опираясь на более ранние исследования. Для определения релевантности академических исследований был использован качественный подход к обзору литературы, включающий отбор релевантных исследований из рецензируемых журналов и научных книг, опубликованных в период с 2000 по 2025 год. Исследование сосредоточено на корреляции между билингвизмом и такими важными когнитивными способностями, как исполнительные функции, память и навыки решения проблем. Предыдущие исследования показали, что билингвы, как правило, обладают большей когнитивной гибкостью и лучшим контролем над своим мышлением, чем монолингвы. Кроме того, билингвизм, по-видимому, улучшает академическую успеваемость, особенно по предметам, связанным с языками. Полученные результаты противоречат ранее существовавшим представлениям о том, что изучение более чем одного языка может быть затруднительным для учащихся. В статье подчеркивается важность билингвизма и акцентируются его когнитивные и образовательные преимущества в глобализованном обществе.

Abstarct

The article discusses the impact of bilingualism on cognitive development and educational outcomes, drawing on earlier research. To determine the relevance of academic studies, a qualitative literature review approach was used by selecting relevant studies from peer-reviewed journals and scholarly books published between 2000 and 2025. The investigation focuses on the correlation between bilingualism and essential cognitive abilities like executive authority, memory, and problem-solving skills. Previous research has revealed that bilingual individuals tend to have greater cognitive flexibility and better control of their minds than monolinguals. Additionally, bilingualism seems to enhance academic performance, especially in subjects related to languages. The findings contradict previous beliefs that learning more than one language can be perplexing for learners.' The article underscores the importance of bilingualism and emphasizes its cognitive and educational benefits in a globalized society.

Key words: bilingualism, cognitive development, flexibility of thinking, memory, education

Introduction

In almost every present moment of our lives, we are surrounded by language. We use language to express our thoughts and feelings, connect with others, understand our culture, and comprehend the world around us. For many people, this rich linguistic environment includes not just one language but two or more languages. In fact, the majority of the world's population speaks two or more languages. According to the results of a survey conducted by the European Commission in 2006, 56 percent of respondents reported that they could speak a language other than their mother tongue [1]. Bilingualism has become increasingly common in a globalized world. According to Grosjean (2010), bilingual individuals regularly use more than one language in daily life, which shapes their cognitive processes. Previous research suggests that bilingualism may enhance executive function, memory, and problem-solving skills (Bialystok, 2001). Despite earlier beliefs that bilingualism could confuse children, modern studies demonstrate its potential cognitive and academic benefits. This article aims to examine how bilingualism influences cognitive development and educational outcomes based on existing research.

Methods

The cognitive benefits associated with multilingualism are believed to result from the brain's constant need to manage two linguistic systems and switch between them. This regular mental exercise can enhance cognitive flexibility and improve attentional control. Moreover, multilingual individuals tend to develop a more refined understanding of language structure and usage, which can also contribute to improved metacognitive skills. These developments have led to shifts in educational paradigms, with increasing support for multilingual education programs in early childhood across different parts of the world. To determine the cognitive benefits of multilingualism, first-year English philology students were asked to complete an online survey at the University World Languages of Uzbekistan. Among the group of 50 individuals aged 18 to 20, they came from diverse language backgrounds including monolingual, bilingual, and multilingual. All respondents gave written consent before completing the questionnaire and were encouraged to participate. The survey was voluntary. It included multiple-choice and Likert-scale questions asking students to evaluate their understanding of cognitive advantages such as increased metacognitive awareness, improved problem-solving power, and attention span. The participants were asked to indicate which cognitive areas they believed experienced the greatest benefit from multilingualism, with questions such as "attentional control," "working memory",

“flexibility in thinking,” and “language structure awareness”.

The anonymous collection of responses was achieved through an online method, enabling individuals to complete the questionnaire as they pleased. In order to be dependable, the survey contained several reverse-coded items and attention-check questions. Quantitative analysis was conducted on responses after the data collection phase. We calculated the likelihood of each choice and used inferential statistics such as chi-square tests to identify significant patterns in participants' perceptions. The results showed strong agreement on some cognitive benefits. According to the survey, 68% of students cited "flexibility in thinking" as the primary benefit of multilingualism, while 58% emphasized attentional control and 46% focused on improving working memory. This suggests that students have a strong grasp of how multilanguage experience can impact their cognitive function and support the idea that early exposure to multiple languages can lead to heightened cognitive flexibility and metacognitive skills. The online survey methodology proved to be an efficient and effective method for collecting students' opinions, while the quantitative analysis facilitated systematic interpretation of trends and the identification of predominant beliefs about multilingualism's cognitive influence. The outcomes have implications for the design of curriculum and the promotion of multilingual education programs in higher education institutions.

Results

The availability of cognitive flexibility allows an individual to explore alternative associative pathways and make decisions. Behaviorally, when flexible people are faced with problems, they tend to look for alternative solutions to their problems. Cognitive flexibility is very useful in creative thinking because it helps an individual avoid rigid thinking [2]. To rephrase, individuals with cognitive flexibility tend to evaluate alternative solutions when confronted. According to Guilford (1987) differences in creative skills can be attributed to factors such as problem sensitivity, idea fluency (advanced ideas), flexibility and originality of ideas, synthesizing abilities, analysis, and evaluating abilities. According to Guilford, flexibility is the ability to accept and evaluate new ways of thinking. The ability to think of two distinct ideas or multiple tasks simultaneously is more easily attainable when someone speaks two languages. Beyond theoretical considerations of cognitive flexibility, bilinguals are also more flexible than monolinguals. Multi-language thinking represents a cognitive and cultural renaissance that transcends traditional educational boundaries [3]. People with a blend of diverse cultural backgrounds often results in a complex connection between language and identity. Through his writings, Jhumpa Lahiri showcases her mastery of multilingualism and cross-cultural identity, experience of immigrants. In a society where multiple languages are spoken, her characters often find it challenging to comprehend them, integrate their language with the language of their adopted nation. Lahiri explores how language, self-perception, belonging, and cultural adaptation are shaped by acquisition, leading to the formation of complex yet detailed portraits of individuals with diverse cultural and linguistic backgrounds. Multilingualism is a heterogeneous life experience that may promote flexible goal adjustment [4].

Discussion

The present study demonstrates that multilingualism plays a vital role in developing cognitive flexibility and metacognitive awareness in university students. The survey results showed that most participants (68%) believed that managing multiple languages provided them with better thinking flexibility while 58% reported advantages in attention control and 46% experienced working memory improvements. Theoretical frameworks explain the perceptions of

people who use multiple linguistic systems because their daily practice requires them to switch between languages which enhances their executive function and attention capacity. The students who showed more interest in flexible thinking than other mental abilities demonstrated their ability to understand cognitive control as an abstract concept which they could use to solve problems and think flexibly. This response pattern corresponds with Guilford's (1987) creative cognition model which identifies flexibility as a major element which underlies divergent thinking and problem sensitivity. Multilingual individuals develop better skills to assess different solutions while they connect different concepts together which proves useful in educational settings and creative work. The ability to speak multiple languages enables people to create new connections which enhance their analytical abilities and improve their methods of handling complicated situations. Multilingualism serves as a more than just a communicative resource because it operates as a cognitive resource that enables people to develop their mental abilities. The cross-cultural literary representations in Jhumpa Lahiri's works show how multilingual experience reaches its highest expression through qualitative elements.

References:

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