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# The Effect of Bilingualism and Multilingualism on Academic Behavior

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## Abstract

The phenomenon of bilingualism and the effect of it on general and academic purposes is not something that anyone could deny, in one aspect being able to participate and understand others and convey your message to them is one thing and in another aspect, communicate effectively is other important element in effective relations. In this article researcher strongly claims that if bilinguals and monolinguals evaluate their success in business or in academic places, you could easily understand that the winners are bilinguals because of their ability to understand and create a positive and effective relation with others. They should be more successful in their business and communicate with all peoples around the world.

**Keywords:** self effective, self efficacy, Task based learning and CLT approach

## 1. Introduction

The researchers have been attempting to identify the influences or variables that influence foreign language acquisition. The researchers even wanted to know how to tell the difference between good and unsuccessful students. Since achievement is determined by a number of factors, researchers emphasized the importance of learning. Many researchers have identified learning strategies, and they all agree that active learners employ a variety of strategies and techniques to effectively solve problems they encounter when learning or acquiring a language. Investigations into the use of learning strategies by bi- or monolingual students have been conducted all over the world, especially in English-speaking countries.

The aim of this study is to look into the differences in learning strategies used by monolingual and bilingual foreign language learners when learning a language. It also aims to see whether factors like ethnicity and proficiency have an effect on the use of learning techniques.

In certain parts of the world, the number of people who can speak more than one language has grown in recent years. According to [1] about 70% of the world's population is bilingual. This emphasizes the importance of researching the role of bilingualism in the teaching and learning of a foreign language. Bilingualism is a practice that exists in other countries around the world, including Iran. Furthermore, various parts of the world speak a mixture of languages and dialects. As a result, there could be gaps in acquiring a foreign language between monolingual and bilingual students. In Iran, English is a foreign language, and learning a

foreign language in order to communicate with people from other countries is a must in a developing world.

The controversy about whether learning two languages benefits or hinders the production of either language has become one of the most fiercely pursued research questions by contemporary language scientists. During almost every waking minute of our lives, we are surrounded by words. We use language to express ourselves, interact with others, and associate with our history, as well as to comprehend the world around us. For certain people, this diverse linguistic world includes not only one, but two or three languages. In reality, bilingual or multilingual people make up the vast majority of the world's population. In a 2006 European Commission poll, 56 percent of respondents said they could communicate in a language other than their mother tongue. Millions of people in the United States speak a language other than English in their daily lives, whether at work or in school. Neither Europe nor the United States are isolated. According to the Associated Press [2], up to 66 percent of the world's children are bilingual. 3 Researchers have been able to look further into the brain to explore how bilingualism communicates with and affects the neural and physiological processes thanks to scientific advancements in recent decades.

## **2. Cognitive consequences of bilingualism**

When a bilingual person uses one language, the other is almost always present at the same time, according to research. When a human hears a phrase, he or she does not hear the whole word at once; rather, the sounds are delivered in sequence. Long before the word is done, the language machine in the brain starts to infer what it is by triggering a large number of words that complement the signal. If you hear the word "may," you are likely to think about words like "candy" and "candle," at least in the early stages of word comprehension. This stimulation is not limited to a single language for bilingual people; auditory feedback triggers matching words regardless of the language they belong to. Dealing with this constant linguistic rivalry will lead to linguistic difficulties. Knowing many languages, for example, will allow speakers to name pictures more slowly<sup>7</sup> and increase tip-of-the-tongue states.

As a consequence, the frequent balancing of two languages necessitates the need to limit how much time a person spends in - language. This is a valuable attribute from a communicative standpoint—it can be tough to interpret a message in one language if the other language is constantly interfering.

Similarly, if a bilingual person switches between languages constantly while speaking, the listener can become confused, particularly if the listener only knows one of the speaker's languages. The bilingual brain depends on executive functions, a regulatory mechanism of general cognitive skills that involves mechanisms including concentration and inhibition, to maintain the relative equilibrium between two languages.

Since a bilingual person's two language systems are both alive and competitive, she or he employs these control structures while she or he speaks or listens. Consistent activity enhances regulation systems and alters brain regions associated with them. When it comes to activities that include dispute resolution, bilingual people often outperform their monolingual counterparts. People are asked to name the color of the font of a word in the classic Stroop task. Where the color and the term complement each other. If the color and the word do not align, people are more likely to call the color wrong. To ignore the meaningless term and concentrate on the correct color, the neural system must use additional tools. Inhibitory regulation refers to the capacity to suppress conflicting visual stimuli and concentrate on the specific features of the input. When it comes to activities that need inhibitory regulation, bilinguals often outperform monolinguals. Bilinguals are also faster

than monolinguals at switching between tasks; for example, when converting from categorizing objects by color (red or green) to categorizing them by form (circle or triangle), bilinguals transition more quickly than monolinguals. 13 When adjusting tactics on the move, this reflects greater cognitive function.

According to research, bilingual benefits of executive performance are not limited to the language networks of the brain. 9 Researchers have investigated which brain regions are involved as bilingual people undergo activities that require them to alternate between their two languages using brain imaging techniques such as functional magnetic resonance imaging (fMRI).

When bilingual people have to transition between naming pictures in Spanish and English, the dorsolateral prefrontal cortex (DLPFC), a brain area correlated with processing abilities including concentration and avoidance, shows increased activity. Language switching has been discovered to include mechanisms such as the anterior cingulate cortex (ACC), bilateral supermarginal gyri, and left inferior frontal gyrus (left-IFG), both of which are involved in cognitive function. The left-IFG, which is also referred to as the brain's language processing node, tends to be active in both linguistic<sup>15</sup> and non-linguistic processes. The bilingual benefit has neural origins in subcortical brain regions that are typically concerned with sensory perception. Simple speech sounds are heard by monolingual and bilingual teenagers. They exhibit very close brain stem responses to sensory input when there is no external noise. When the same sound is played to both classes in the presence of external noise, the bilingual listeners' neuronal response is even greater, indicating improved decoding of the sound's fundamental pitch.

A sound quality that is closely linked to pitch perception To put it another way, when bilingual people hear a sound, blood pressure (a measure of neuronal activity) increases in the brain stem. Surprisingly, this increase in sound encoding seems to be linked to improved auditory attention.

The cognitive regulation taken to manipulate multiple languages tends to have a wide range of effects on neurological performance, fine-tuning both cognitive and sensory functions.

### **3. Improvements in learning**

Being bilingual will have real-world benefits. Bilingual experience can enhance cognitive and sensory processing, allowing a bilingual person to better process information in the environment and provide a clearer signal for learning. This increased attention to detail could explain why bilingual adults learn a third language more quickly than monolingual adults learn a second. The desire to concentrate on knowledge about the new language while eliminating intrusion from the languages they already speak could be at the core of the bilingual language-learning benefit. Bilingual people will be able to navigate newly acquired words more quickly, resulting in greater vocabulary improvements than monolingual people who aren't as skilled at inhibiting competitive knowledge.

Furthermore, the advantages of bilingualism seem to begin early—researchers have shown that bilingualism improves focus and conflict control in children as young as seven months.

### **4. How bilingualism puts emergent readers at an advantage**

To fully understand the benefits, it is important to understand what we are talking about when we say “bilingual”. The definition of bilingual is a person who



speaks two or more languages fluently; therefore, bilingual people can be divided into two categories: simultaneous and sequential; Simultaneous bilinguals start learning two languages at birth or before age three, and sequential bilinguals learn a second language later. Both subsets suffer from the misunderstanding that knowing two languages makes it difficult to learn to read. But one of the main advantages of being bilingual is literacy, and the reason for this lies in metalinguistic. Language learners develop metalinguistic skills at a younger age than most other children. Linguists believe that they are better equipped to grasp the structure of words because of exposure to multiple languages at a young age. This can help bilingual students develop phonological awareness skills, an essential pre-reading skill, faster than their classmates.

A larger vocabulary is another benefit of bilingualism, which affects the development of reading and writing skills. Bilingual students tend to be exposed to more words in both languages than children who speak only their mother tongue, so they are more likely to learn the equivalent of any word they learn in the other language. With more words in your vocabulary, spelling words and learning the alphabet will be more natural. In addition, in later grades they will be predisposed to spell more complex vocabulary. The prevalence of these reading advantages depends on several factors, particularly how similar the languages of a bilingual student are. For example, a student who speaks Spanish and Portuguese will learn to read and write faster in both languages than a student who speaks Chinese and English. These benefits are also generally more pronounced if the student has strong, though not necessarily equal, knowledge of both languages. However, any level of bilingualism can strengthen a student's vocabulary and metalinguistic skills.

## **5. Advantage and disadvantages of bilingualism**

The ability to communicate in two languages is often regarded as a remarkable accomplishment, particularly in English-speaking countries. Given that 70 percent of the world's population is estimated to be bilingual or multilingual [1] there is reason to think that bilingualism is the standard for the vast majority of citizens. Researchers in the region have shared differing viewpoints on the benefits and drawbacks of bilingualism or multilingualism.

The majority of previous research indicated that bilingualism has negative effects. Internalizing two languages instead of one can result in a more complicated, well-equipped theoretical calculus, allowing the infant to switch between two sets of laws while using symbols.

Bilingualism also has a positive impact on foreign language achievement, according to several studies. Childhood bilingualism, for example, was found to have a beneficial impact on adult ability to learn a foreign language. That is, people who learned a second language as a child have a better chance of understanding foreign languages as adults. Thomas [3] also looked into how English monolinguals and English-Spanish bilinguals learned college French. The bilinguals outperformed the monolinguals in her research, with the bilinguals outperforming the monolinguals. Since the findings of studies on the effects of bilingualism get mixed up, some researchers decided to perform tests using more controlled variables. Any of these studies' results resulted in a neutral stance toward bilingualism. In a study comparing the development of an artificial grammar by monolingual, bilingual, and multilingual students, [4] found that while multilinguals performed better in some situations, there was "no convincing indication that they were superior in language learning ability.

Having the required material information in L1 seems to make learning the right vocabulary elements in L2 much easier.

The concept of competence conversion is backed by cognitive science studies, which looks for representational schemas for dynamic narratives in two languages. Given that skills do migrate through languages, it's possible to think about transfer as happening on a componential, skill-by-skill basis, or as occurring more broadly, where the whole structure of skills in a domain moves [5].

## **6. Benefits of bilingualism**

For all of us, learning a foreign language has been a lifetime ambition. It's a must for children whose parents have moved to a country where they cannot speak their native tongue. However, an increasing body of evidence suggests that bilingual schooling has many advantages beyond the potential to work in a different country and community. The tradition of teaching school subjects in two distinct languages is known as bilingual education. It can be used to assist students in transitioning from their original language to the languages spoken in the country where they currently reside, but it can also be used to teach academic material in two languages at once. It is important because it contributes to bilingualism, which is the practice of speaking and recognizing two languages: one's native tongue (L1) and another's native tongue (L2) (L2). Transitional Bilingual Education, Dual Language Immersion Bilingual Education, and English as a Second Language are also examples of bilingual education curriculum models. Transitional Bilingual Education was once the most common curriculum model, but it has steadily fallen out of favor as many educators contend that it does not adequately support diversity and bilingualism. Dual Language Immersion Bilingual Education, on the other hand, is gaining attention because it supports both native and non-native students. English as a Second Language (ESL) can be thought of as an alternative to other services for individuals who choose to develop their English skills through a combination of methods and approaches, such as school courses and self-directed learn at home programs [6].

## **7. Pro: enhanced mental skills**

People who speak two or more languages outperform monolinguals in some mental activities, such as retaining emphasis on essential facts, according to research. This advantage of bilingualism has been shown in both children and adults, dispelling the misconception that bilingualism hinders academic growth by "confusing" the brain. Bilinguals, on the other hand, find it easy to focus their attention when they are used to flipping between languages. Judith Kroll, Distinguished Professor of Psychology at Penn State, said, The bilingual is somehow able to compromise between the rivalry of the languages. This balancing in languages is thought to be the source of these cognitive abilities. Since the opportunity to pay attention to the environment around us and prioritize useful facts while avoiding irrelevant knowledge is crucial for learning, bilingual children are slightly more competitive than their monolingual peers in problem-solving and creativity activities.

## **8. Con: education can be expensive**

Teaching academic material in two languages can be very costly, as shown by the costs of bilingual education systems all around the world. This is one of the reasons

that, in its most intensive ways, this college curriculum concept is traditionally exclusive to private colleges, which are out of reach for the majority of students and families. Modern language learning applications like Encore!!! have been leveling the playing field of bilingual education in recent years, allowing language learners to immerse themselves in engaging language content on an equal footing. Rather than paying for pricey lessons, language learners can easily download a mobile app, choose a lesson plan depending on their level of proficiency, and follow along. Encore!!! is an excellent example of an app that all language learners should be aware of whether they want to learn how to become bilingual without costing a lot of money. There are 12 language pairs included in the free edition, as well as five free lesson plans. Vocabulary, greetings, and helpful phrases are included in both proposals, as are verb conjugations, sentences with similar vocabulary, and discussions led by native speakers.

## **9. More cognitive benefits of being bilingual**

While early linguists believed that learning a second language induced developmental delays, current evidence indicates that this is not the case. (8) Bilingual pupils have a number of distinct advantages in school and beyond. Bilingual pupils, for example, have better functioning memory and attention spans. These abilities can contribute to both academic and professional success. On activities requiring executive coordination, bilingual students outperform monolingual students. This includes self-discipline, perseverance, and other abilities that aid students in achieving their objectives. Bilingual students also have the intelligence and drive to take on challenging school tasks when paired with the higher abstract thinking skills they acquire. And the benefits do not end with academic success. Bilingual people are more creative than monolingual people, which can lead to satisfaction as well as success. They're also better at multitasking and resolving conflicts, qualities that help both themselves and others. Best of all, bilingualism has been attributed to a lower risk of cognitive loss later in life. Bilingualism's cognitive gains favor students throughout their lives, from birth to old age. Bilingual students can learn to read not just as well as monolingual students, but much better. You will help them learn pre-reading skills as an educator, particularly if you teach a primarily bilingual classroom.

## **10. Conclusion**

There is no controversy when it comes to the value of a bilingual education. In my head, it does not happen. Bilingual schooling, in my opinion, should be not only considered helpful and useful, but also promoted and possibly implemented by society. Being literate in two languages has only positive consequences in life. I'd take that a little further and encourage students to study as many languages as they can! There is no risk in doing so, because the rewards are enormous. Bilingual (at least) schooling is common sense in a variety of contexts, from travel to job prospects to general interactivity with others there is no compelling explanation why capable individuals do not get at least a bilingual education.

## **11. Key findings**

Bilingual programs, Dynamic bilingualism, Enrichment bilingual programs, Heritage/indigenous programs, Immersion programs.

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