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Department of English



## **The Effects of Bilingualism on the Human Mind**

### **and Cognitive Abilities**

The case of First Year LMD Students of English at Ammr Theledji

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## *Dedication 1*

*I dedicate this modest work to the soul of my father, you were for us a friend, an advisor, a model, you made enormous sacrifices so that we could benefit from a good education, you have the favour in shaping my identity that helped me during my life . you left us too early but you will remain eternal in our hearts. I wished that you were here with me today because this work is the fruit of your efforts. may Allah the almighty welcome you to his paradise and rest in peace.*

*To my very dear mother who has always been there for me, and who gave me everything, her passion and patience along the years of my education were the secrets behind this stand today. I just want her to know that I love her. “May God always protect her”.*

*To my dear brother “Abd Elbasset” who were the father to me and who earn the gratitude for standing by me in my hard times, I wish you a life full of joy and success.*

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*To my beautiful roommate Rania Allan whom I spent the most beautiful and happiest days of my life with her, may Allah blesse you and give you all what you wish for.*

*Zahra Nour Elhouda Elaihar*

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*This research is dedicated to my dear parents, who have been a source of inspiration for me and have given me strength when I was on the verge of giving up. To my Supervisor Mr. Guessmi , to my sisters, Lamia, Samira, Sabrina, to my brothers: Karim, Toufik, and my uncle Mohamed,my dear cousin Fatima who helped me a lot ,and to my dear friends Amel, and Meriem, to my bosses Mr.Benkacimi and Mr. El Maizi, mentors, friends, and classmates who encouraged me to finish this study through their words of advice and encouragement. Finally, I thank the almighty God for his guidance, strength, and power.*

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## **Abstarct**

*The current study aims to demonstrate the effects of bilingualism on the human mind and cognitive abilities, as well as how a bilingual brain differs from a monolingual brain. The study also discusses the link between bilingualism and mental aging and illnesses such as Alzheimer's. It also looked into the students' perceptions of the difficulties they might face while learning a new language. Bilinguals were thought to have a wide range of cognitive and creative abilities. Furthermore, being bilingual may help with cognitive processing with in the educational environment as well as on the mental aspect. A questionnaire was used to collect the information. Additionall , the researcher used a descriptive method and a quantitative approach. The findings of this study show that being bilingual is extremely beneficial, both psychologically and educationally. The findings also show that the majority of respondents strongly agreed on the importance of learning a new language and becoming bilingual.*

**Keywords:** *Bilingualism, monolingualism, cognitive abilities, mental aging.*

## *List of Abbreviations*

*EFL English as a Foreign Language*

*LMD Licence Master Doctorate*

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# *General Introduction*

## General Introduction

Bilingualism is the ability to master two different languages, or simply by learning a second language after the primary language. Parents used to teach their children a second language at school or home. They believe that it is very beneficial for their children to use a second language besides their mother tongue language. They think that their children can be cultivated, open-minded, and educated. Whereas other parents believe that teaching their children, a second language is just a waste of time and it can be heavy for their little minds to be charged.

Teachers support foreign language learning because they believe it is so important to their students especially children of early age. They think that children have clean minds where they are still discovering the new world by acquiring new things, and new information such as structures, and sounds. However, adults are supposed to learn grammar and rules since they advanced in learning.

Learning a foreign language helps the children to develop an appreciation for other cultures and to accept change. Children will be able to accept any variation or change. Whenever they listen to a new language, they become so curious to learn this new language even if it has different beliefs and heritage. It also can facilitate for them to communicate with outsiders and foreigners. In addition to that, they can travel to any new place in the world, where they can be comfortable since they have already learned about the language and its popular places. For example, Algerian people can travel to England easily because they have the English language as a second language in their educational programs. So it is easy for them to communicate and visit the place. In conclusion, this study is going to explore the effects of bilingualism on the human mind and cognitive abilities. Accordingly, the researcher will try to answer the following questions: Does speaking two different languages affect the human mind in its way of thinking? What are the advantages of being a bilingual person? One might wonder further questions such as: How does the brain of bilingual people differ from monolingual people? Does bilingualism influence cognitive aging? and Does bilingualism affects the learning process?.

Consequently, to answer the previous questions, a set of hypotheses were raised. Additionally, the problem will be solved which is how bilingualism can affect the human mind and cognitive abilities?

The major goals of this study are to highlight and investigate the impact of bilingualism on the human mind and cognitive capacities, as well as to demonstrate the differences between being bilingual and being monolingual. Furthermore, it will attempt to demonstrate the importance of being bilingual, to facilitate the learning process, to promote every skill, and to enable students to communicate more effectively.

The questionnaire is the research instrument that was utilized in the previous study since it is well suited to gathering the needed data on the subject. As a result, the questionnaire includes a mix of multiple-choice, open-ended, and alternative answer (true/false) items. Aside from that, the questions will be well-structured. starting with the first section, which covers the contestants' backgrounds. Then they were asked to answer more detailed questions (such as whether they are bilinguals or not, and how their bilingual situation affects their writing, listening, and reading abilities), and finally, they were asked to express their thoughts on being bilingual. All of this was done in order to corroborate or refute the hypotheses offered.

The study paper is divided into three sections. The first (which will be a theoretical background section) will cover the history of bilingualism as a whole, and it will present the review of literature.

In the light of the second chapter (research methodology) the researcher will present the followed methodology and research design( a descriptive method was used and a quantitive approach was applied). Furthermore, the researcher will analyze the issue, provide the question, hypotheses, and key goals that this study aims to achieve. The researcher will also go over the sampling and questionnaire in great detail.

The researcher will focus on assessing each element of the questionnaire based on various quantitative analysis measures in the third and the final chapter. In addition, the researcher will focus on the questionnaire's findings and results, as well as make

some recommendations. The findings will be analyzed, the key findings will be presented, and some ideas and recommendations will be made at the end.

The main findings that the researcher found were that being bilingual has the capacity to produce, reform, and influence a student's character, personality, and tendencies. In addition, bilinguals have faster stroke recovery and lower stress levels. And more will be presented in the coming chapters.

# ***Chapter one: Literature Review***

## **Introduction**

This chapter seeks to understand bilingualism, the benefits of bilingualism, and the influence that bilingualism has on the human mind and cognitive abilities. Language has a vital role in our life because language is all around us at all times. By language, people express Language contributes to the developments of our personality and is used all over the world. Humans are distinguished from other animals by their use of language. Bilingualism is a common topic. And it is on the rise throughout the majority of the world. Throughout the past few decades, there has been an increase in research on bilingualism. Due to the prevalence of bilingualism, much researchers have been conducted on the topic. Although the science of bilingualism is limit, many questions concerning bilingualism are still without answers. And other questions can't be answered. But, due to the researchers conducted on bilingualism, we can answer most of the questions. Bilingualism is a dependent field; bilingualism is correlated with other disciplines studies like anthropology, sociology, linguistics...etc.

The phenomenon of speaking two or more languages is known as bilingualism. It refers to the ability to communicate effectively, in two languages. By speaking more than one language. A person will have a better consciousness and a better new way of thinking. Many studies have been proven that learning a new language has academic effects on the human mind and cognitive abilities.

### **1.1.Definition of bilingualism:**

Bilingualism and multilingualism have always been two universal facts arising from the necessity to communicate with people from various linguistic origins.

Bilinguals, according to Macnamara(1967), are those who are fluent in at least one of their second language's language abilities (listening, speaking, reading, and writing) (Macnamara, 1967)

Diebold (1961) coined the phrase 'incipient bilingualism' to describe the early phases of contact between two languages, which provided a minimum description of bilingualism (Diebold,1961). Neither of these criteria mentions the absolute minimum level of ability needed to be termed bilingual. Bilinguals, on the other hand, are individuals who display total command of two separate languages without interference between the two linguistic processes (Oeistreicher, 1974) or who show "native-like control of two

languages (Bloomfield, 1933). These two classifications, however, both place rigorous restrictions on bilinguals and have been linked to the stigmatization of bilingualism, with speakers perceived as being somewhat weak in their linguistic abilities.

According to Weinreich (1953), "the practice of alternately employing two languages shall be called bilingualism here, and the individuals engaged bilinguals."

As a result, a bilingual is someone who speaks two or more languages alternately regularly. Even within the definition, though, speakers' actual linguistic abilities can vary greatly. These varying levels of linguistic aptitude give rise to a plethora of alternative definitions of distinct types of bilingualism. In the subject of linguistics, there are significant distinctions between bilingualism.

But where do all of these early definitions fail? For example, Macnamara discusses the bare minimum of proficiency in one's mother tongue, where "mother tongue" is a crucial term.

The popular criteria, according to Skutnabb-Kangas, are that one's native tongue is the language in which one thinks, sleep, and counts (Skutnabb-Kangas, 1981). "Can be able to use that new language for these functions, even though not all speakers do" after living in a new language community for a period. It is merely a matter of personal preference as to how quickly one adapts to the new environment.

To put it another way, the first flaw in these early definitions is their treatment of the concept of genesis. The mother tongue is the first language that a kid learns, according to sociology.

As a result, a bilingual is someone who has learned two languages from scratch or in tandem with native speakers. But what about a language that someone has to use frequently for a job or communication but isn't their first language to learn?

The second reason for the above-mentioned definitions' flaws is Bloomfield's definition, which claims that competence is defined as "native-like control of two languages."

Mother tongue is described as "the language a person knows best" from a linguistic standpoint. A bilingual person, then, is someone fluent in two languages.

“Definitions of bilingualism are essential to characterize and compare bilingual individuals or different contexts in which bilinguals find themselves,” Skutnabb-Kangas believes.

Reyes (2008) emphasizes that bilingualism should be understood as a continuum in which linguistic aptitude varies depending on social, educational, and other circumstances (Reyes,2008)

Because there are constantly ‘intrusions’ from other languages, Bialystok (2001) feels that it is impossible to be and remain monolingual. Children may be multilingual as a result of their parents’ preference to talk in their native language at home. Furthermore, the community’s language may differ from the child’s home language, forcing the youngster to learn two languages in order to interact at home and in the community (Bialystok, 2001)

Unlike previous definitions of bilingualism, Musk believes that “a definition of bilingualism should focus instead on the functions that language performs” (Musk, 2006).

Mackey suggests the following definition for bilingualism in the same vein:

Bilingualism is a quality of language use, not phenomenon of language. It is a message feature, not a code feature. It belongs to the area of parole rather than langue. (Mackey,1962)

It is now evident that what bilingualism is and how it is defined covers a wide range of topics. Because scholars prefer to regard bilingualism as having numerous elements, it has always been difficult to come up with a single reliable description of a bilingual person.

## **1.2. Importance of being bilingual:**

“The limits of my language mean the limits of my world.” said Ludwig Wittgenstein in his “Tractatus Logico-Philosophicus,” published in 1922. Our perception is influenced by the words we have at our disposal, and the more words we have, the better. Learning a new language allows us to perceive the world in a different light.

That premise is supported by several of modern linguists. Bilingualism (or multilingualism) may provide various advantages to the growing brain, in addition to assisting us in communicating. According to the hypothesis, a bilingual infant develops better executive control, or the ability to efficiently regulate higher cognitive processes like problem-solving, memory, and cognition, as a result of switching between languages. She

improves her ability to suppress some impulses while promoting others, and she develops a more flexible and nimble mind overall. Researchers have coined the term "bilingual advantage" to describe this phenomenon.

For the early part of the twentieth century, researchers believed that bilingualism was a *dis* advantage, causing a child's I.Q. and verbal development to suffer. However, in recent years, data to the opposite has surfaced, research that has proved both far-reaching and persuasive, with most of it stemming from the painstaking work of psychologist Ellen Bialystok. Bilingual speakers appear to have an advantage in numerous tasks, including those that require working memory.

Both communicative and cognitive functions are served by language. It does not exist on its own; rather, it serves as the foundation for a meaningful overall behavior that is regarded proper in a certain culture (Hamers, 2004). As a result, because language behavior is influenced by societal influences on an individual level, Individual language behavior can also be regarded as a result of societal language behavior. There are constant interactions between these two forms of language behaviors, with language valorization playing a crucial role (Hamers, 2004).

“The attribution of specific positive values to language as a functional tool, that is, as an instrument that will enable the fulfillment of social and cognitive functioning at both societal and individual levels,” Hamers (2004) defines valorization.

The theory that bilinguals and multilingual experience constant cross-linguistic activation and interaction during language processing underpins the notion that bilinguals and multilingual can benefit intellectually from their bilingualism. As a result, a cognitive control system that permits speakers to resolve the conflict between actively competing languages is required to utilize the correct language in any given context (Marian et Spivey, 2003). In humans, a cognitive control system for nonverbal processing already exists—the so-called executive function (EF). Individuals use the EF cognitive control system to choose between alternative and (sometimes) competing reactions in their daily lives (Keye et al, 2009). Selective attention, information updating, set-shifting, task monitoring, and conflict resolution are all cognitive abilities that fall under the umbrella of executive function (Botvinick et al, 2001), (Diamond, 2013), (Miyake et Friedman, 2012). The growth of EF is thought to begin in early childhood and continue until adolescence when it achieves maturity.

It is self-evident that knowing two or more languages provides benefits. Children who speak more than one language can communicate with a greater number of people. It also aids children in their understanding of other cultures and practices.

On tasks that require cognitive flexibility, dual language learners outperform monolinguals. This is a catch-all word covering skills including task switching, impulse control, and problem-solving. Children who learn two languages may do better in games that need these abilities.

A classic example of this type of game is Red Light Green Light. These cognitive advantages last for the rest of one's life. They help seniors' theory of mind and may even prevent the start of Alzheimer's disease.

Last but not least, many people are interested in studying bilingualism just because they enjoy languages, meeting new people, and learning about different cultures. It goes without saying that knowing a language other than our mother tongue allows us to feel at ease while traveling and to appreciate literature, films, and music from different cultures. Many people would be inspired to become bilingual and/or research the field of bilingualism as a whole simply by the prospect of understanding how people in various regions of the world think and live. Given the rapid technological advancements that have made communication easier and more affordable than ever before, it is unsurprising that an increasing number of people aspire to become bilingual and are looking for the best available means to do it (Altarriba et al., 2008).

### **1.3.Benefits of bilingualism**

Several studies have shown that learning a new language improves cognitive abilities, increases a person's job opportunities, enhances brain function, and memory. The advantages of being able to communicate in, more than one language are self-evident. Travelling around the world becomes easier, discovering new cultures become more pleasurable. Moreover speaking two languages has social, cultural, educational, and personal benefits. Bilingualism opens up new doors that help people in their life (Mark Bassett, 2019).

#### **1.3.1.Benefits of bilingualism on brain**

Several studies have shown that learning a new language improves cognitive abilities, increases a person's job opportunities, enhances brain function, and memory. The

advantages of being able to communicate in, more than one language are self-evident. Travelling around the world becomes easier, discovering new cultures become more pleasurable. Moreover speaking two languages has social, cultural, educational, and personal benefits. Bilingualism opens up new doors that help people in their life (Mark Bassett, 2019).

### **1.3.2.Cultural benefits of bilingualism**

Being able to communicate in another language is beneficial in cultural situations. Speaking two languages can make a person more aware of cultural differences. Also, it makes them learn why those differences exist and the significance of cultural respect. Being bilingual discloses people to discover various new ideas, customs, and perspectives from various cultures (Mark Bassett, 2019).

### **1.3.3.Social benefits of bilingualism**

Bilingualism can expand social opportunities. It can boost social skills. Learning a new language leads a person to know more people, and build more relationships. In addition to that, people will gain confidence in social situations. Crosby (2014), for example, proposed that bilingual speakers who learn a second language in a bicultural context may have a more developed sense of social justice due to their increased unequivocal empathy for cultural diversity (Mark Bassett, 2019).

### **1.3.4. Benefits of bilingualism on everyday life**

Mastering two languages can lead to more job opportunities. The use of bilingualism is very essential in the workplace. Particularly, with international offices, because they consider bilinguals more privileged in taking the chance. Dealing and communicating with foreign clients is regarded as a very important advantage. Bilingualism Increases cultural awareness, makes travel easier and more enjoyable, improves job market competitiveness, and provides people with a valuable feeling known as confidence. Clearly, it has tremendous benefits in a variety of areas (Mark Bassett, 2019).

## **1.4 Bilingualism and human mind**

Many studies agreed that children between the ages of 0-3 have small brains, which are like white paper where you can write everything you want. At this stage,

children are learning walking, speaking, eating, and sounds. They are still discovering the world, so it is very easy for them to acquire a second language. According to the University of Washington news, “the US census shows that 27% of children under the age of 6 are learning other than English” (Tracy Trautner, Michigan State University Extension - January 28, 2019).

Children absorb sounds, structures, and intonation patterns easily. After the age of 8 kids can profit from speech muscles that reveal the variation of the sound of the second language (Tracy Trautner, Michigan State University Extension - January 28, 2019). Some educators believe that bilingualism has negative effects on human brains and cognition whereas others believe the opposite.

**A.** Here are 7 positive effects of a bilingual person on his mind:

**1. Increase brainpower :**

Learning a second language is a good way to keep the brain healthy and sharp. Being bilingual can develop a person’s multitasking skills, attention control, and problem-solving. It can also help to improve memory like remembering people’s names (My Mark Basset January 14, 2019).

The person can be very intelligent and smart by solving certain kinds of mental puzzles. He can easily focus on the information and the responses. A 2004 study by psychologists Ellen Bialystok and Michelle Martin-Rhee, found that bilingual people are more successful than monolingual people who struggle with everything. (Tracy Trautner, Michigan State University Extension - January 28, 2019).

**2. it can give children an academic advantage**

“Studies have shown that the effects of bilingualism can help developing a child’s educational development, cognitive functions, social skills, literacy, and emotional skills that have positive effects for many years to come”. (by Mark Basset January 14, 2019).

The person can achieve very high grades and scores in his studies; he can also master social skills such as dealing with people and communicating easily with outsiders.

**3. Increase awareness of other cultures**

Bilingual people explore diverse customs, ideas, and perspectives from different cultures. They are very intellectuals about the other countries. (by Mark Basset January 14, 2019).

Most of the bilingual people have a background about the place, the language, the religion and the customs for example, nowadays; the English language is an international language, which led most people from every place in the world, knows English language, food, places, and culture.

#### **4. Make travel easier and more enjoyable**

Traveling is more fun and easier when there is no language barrier; bilingual people will be able to talk directly with the settlers and make more friends along the way. They also know what food to order without pointing at pictures and asking for directions. . ( Mark Basset January 14, 2019). Bilingual people will have no difficulties with communication and direction. They will really enjoy the vacation.

When a monolingual person wants to travel across the world, he will certainly have difficulties during his travel. He will find difficulties with communication, when he lost his way it is impossible to be understood by the locals because it is difficult for them to understand signs.

#### **5. Improve competitiveness in the job market**

Learning a second language can afford more job opportunities, because nowadays, most of the companies need workers who master different languages since they have foreign relationships. Companies need people who can communicate easily with foreigners without any difficulties. ( Mark Basset January 14, 2019).

#### **6. Find it easier to learn a third language**

Some languages are a little bit similar to each other, so the second language will help in improving and mastering the second language, for example, Spanish and French languages are quite similar to each other. Most of the words in the second language are the same in the third language. Therefore, from acquiring a new language you can acquire other new languages. ( Mark Basset January 14, 2019).

#### **7. Stay mentally stronger for longer**

“Recent studies show that bilingual people’s brains age more slowly and therefore they can live longer and more satisfying lives. It is now widely recognized that being bilingual can delay neurological diseases like dementia and Alzheimer’s.” (Mark Basset January 14, 2019).

“Bilingualism serves as enrichment for the brain and has real consequences when it comes to executive function, specifically attention and working memory,” Kraus says.

**B-** Here are some negative effects of bilingualism human on the mind:

### **1. Bilingual people tend to have weaker verbal skills**

Bilingual people tend to produce fewer words than monolingual people who speak one language fluently. In other words, their vocabularies in each language tend to be smaller than that of people who only speak one of those languages. (Miguel angel Muñoz, 23 June 2014).

Another study has revealed that bilingual people experience “tip-of-the-tongue” every moment especially when a person loses the exact word to describe something. These cognitive costs do not just affect the person’s vocabulary but also the grammar one. (Miguel angel Muñoz, 23 June 2014).

### **2. Bilingualism people can mix up their languages when they are speaking**

Bilingual people tend to mix their languages whenever they are speaking or writing. We called it “code-switching”. Sometimes, when a student is stuck in a word, he directly tries to find it in another language so he mixes his languages.

This is, is also noticeable at the level of writing, some students mix their languages whenever they are writing without paying any attention to their mistakes.

### **3. Getting confused**

When a person learned a second language, he maybe gets confused at the grammatical level, for instance, a bilingual person can mix the grammatical rules of the two languages when he is writing or speaking.

Some educators agree that most people who are bilingual are all the time confused and they are sometimes stuck in producing words or writing a letter where they use the grammatical rules of their other language.

#### **4. Getting tired**

The brain will lose its energy when it is looking for the appropriate word or the rule, which makes the brain getting tired whenever the person is stuck.

Some studies believe that bilingualism helps the memory to be alive whereas others believe that being bilingualism will tire the brain and confused it.

### **1.5 Bilingualism and Cognitive Abilities**

Because of the relative multitude of advances and the cycle of globalization that has happened in ongoing many years, the utilization of at least two dialects most of the populace has become typical practice. Consequently, there is a developing revenue of specialists in examining the obtaining and handling of language and its psychological and neural bases. They additionally wish to comprehend the ramifications of bilingualism on the intellectual advancement of bilingual individuals<sup>1</sup>. Nonetheless, the little examination has been led on parts of hear-able execution. (SciELO, 2020)

Pioneer researchers consider that bilingualism is a factor that encourages semantic mindfulness and, as an outcome, language improvement. In this sense, they propose that bilingual people have more intellectual adaptability than monolinguals. Advantages were confirmed in bilingual subjects concerning the upkeep of intellectual capacities, which incorporates an expansion of neural associations, expanded jargon, and more prominent utilitarian redesign of cerebral activity<sup>6</sup>. Past examinations have proposed that bilinguals may have better execution on measures that assess verbal skills<sup>7</sup>, and they may likewise have more noteworthy mental adaptability and a more assorted arrangement of mental abilities; additionally, psychological qualities, like the chief elements of inhibitory control and consideration, are substantially more evident. (Frontiers, 2020) Consequently, it is basic, in the current investigation, to survey hear-able capacities and psychological side effects in this populace, on the grounds that the capacity to comprehend discourse should be viewed as the most significant of the quantifiable parts of human hear-able capacity. The last is fundamental for typical correspondence, and it is subject to hear-able abilities<sup>10</sup>. When utilizing two dialects, people face circumstances of clashing data

through two diverse etymological ideas which represent an incredible test. Confronting this test permits them to improve the hear-able capacities associated with this interaction; one of them is the hear-able figure-foundation capacity, particularly for verbal sounds. Accordingly, the goal of this examination is to assess the psychological and hear-able capacities of monolingual and bilingual people, just as break down and think about the outcomes found in various estimations.

We are surrounded by language in almost every summary of our lives. We use language to communicate our thoughts and feelings, to associate with others and to relate to our way of life, and understand the world around us. Moreover, for some people, this rich etymological climate includes one language and at least two. The truth is, most people are bilingual or multilingual. In a 2006 study conducted by the European Commission, 56 percent of respondents indicated that they had the option to communicate in a language other than their first language. In many lands that rate is high - for example, 99% of Luxembourgers and 95 percent of Latvian people speak more than one language.<sup>1</sup> Even in the United States, which is generally considered a single language, one-fifth of those over five years old of English at home in 2007, a 140% increase since 1980.<sup>2</sup> Millions of Americans use a language other than English in their daily presence outside the home, when they grind away or at home. Europe and the United States are in good company, with the same brand. The Associated Press reports that up to 66 percent of young people in the world are bilingual. A few decades ago, new advances have allowed experts to look inside the cerebrum to examine how bilingualism connects and transforms cognitive and sensory structures. (Ashawire, 2020)

Bilingual experience makes dim matter denser, so you have more cells. This means that a better mind. White matter permits messages to traverse organizations of nerves and the cerebrum. Bilingualism advances the respectability of white matter as you age. Bilingual youngsters who routinely utilize their local language at home while experiencing childhood in an alternate nation have higher insight, an investigation has found. In an investigation, bilingual youngsters end up being more astute than the individuals who talk only one language. Early research on bilingualism, led before the 1960s, be that as it may, connected bilingualism with lower IQ scores, intellectual lacks, and surprisingly mental hindrance. These examinations revealed that monolingual kids were as long as three years in front of bilingual youngsters in both verbal and non-verbal knowledge

Bilingual children have presumably lower IQ Levels and that they are externally performed by monolinguals in both verbal and non-verbal insight tests. BILINGUALS are more touchy to semantic relations between words. It is genuine that being bilingual gives intellectual benefits and makes a solid impact on a leader capacity of mind however communicating in the second language than that of home climate makes a conflict and disarray among the guardians and youngsters. It makes an absence of cooperation and correspondence among them. Someone bilingual from birth probably won't feel an incredible same, be that as it may. The essential detriment of being bilingual is that it's anything but a turnout for the cerebrum. As it's been all around recorded as an increase to your mind, it's in any case depleting. One more of the burdens of being bilingual is miscommunication.

## **1.6. Bilingualism Versus Monolingualism**

The Oxford Advanced Learner's Dictionary definition of monolingual is simple: "speaking or using only one language" (Oxford Advanced Learner's Dictionary). There is no additional information contained in the definition of the concept monolingual. Monolingual has several other names such as unilingual, monoglot, mother tongue...etc.

Being monolingual isn't necessarily a weakness. In actuality, many competent people worldwide are monolingual. However, research indicates that there are numerous advantages to being bilingual, and these advantages extend further than the ability to speak multiple languages. To name a few, there are cognitive, educational, social benefits...etc.

Bilinguals have two native languages, whereas monolinguals have only one. Bilinguals must understand what their native language or mother tongue is. The mother tongue, according to the Oxford Advanced Learner's Dictionary, is "the language you first learn to speak when you are young." As a result, age plays a significant role in defining the mother tongue.

Many people are interested in learning languages, meeting new people, and learning about diverse cultures, thus they want to pursue bilingualism. Having a language other than our tongue, of course, allows us to feel at ease when traveling and even to admire literature, films, and music from various cultures. The promise of understanding how individuals in different parts of the world think and live would drive many people to become bilingual and/or investigate the field of bilingualism as a whole. Given the

growing technical innovations that also have made communication easier and more accessible than it's ever been, it's unexpected that a large number of people want to be bilingual and are seeking the highest quality ways to accomplish so. (Altarriba et al, 2008).

## **Conclusion**

Based on this chapter, it was found that bilingualism has a clear influence on the human mind and cognitive abilities .also; it has many benefits in different aspects from professional and personal to health benefits. Bilingualism has cognitive and neurological benefits that stretch from early childhood to old life, as the brain processes information more effectively and prevents cognitive decline. Furthermore, the above-mentioned attention and aging benefits are not limited to persons who were raised bilingual; they can also be exhibited in those who learn a second language later in life. The literature of bilingualism on the human mind and cognitive abilities is large and consistent, but, it is important to understand the limitation and problems of this literature. Research on bilingualism is challenging as results vary depending on which languages are concerned (Bialystok 2012).

To sum up, the current literature on the effects of bilingualism suggests that bilingualism is mainly beneficial through life, and all this will be confirmed in the coming chapters.

# ***Chapter Two: Research Methodology***

## Introduction

The second chapter is devoted to the research methodology, where the study that aims to discover the effects of bilingualism on the human mind and cognitive abilities on first-year LMD English students in Laghouat, Algeria is going to be presented. Furthermore, the presented hypotheses will be tested through data collection using the research instrument (The questionnaire). This study used a descriptive survey method in order to explain, justify, and illustrate the hypothesis and objective as well as to describe the effects of bilingualism on the human mind and cognitive abilities. In addition, the research will present the methodology, the research design, the approach were used, and finally the questions and the hypothesis were presented.

### 2.1 Context

This research will take place in the department of English, at Amar Thelidji University of Laghouat; Algeria, during the second semester of the academic year 2020/2021. This study will examine the impacts of being bilingual on the human mind and cognitive abilities, the entire number of first-year students is 186 students (see appendix B), yet the researchers can't work with all of them due to the global pandemic COVID 19. Therefore, the questionnaire was concerned with only 18 students. Additionally, the research picked up the participants randomly from different groups to avoid bias and make the study reliable and objective.

### 2.2 Research Design and Methodology

This research will use a quantitative approach , According to Aliaga and Gunderson (2002), quantitative research methods are used to explain an issue or phenomenon by gathering data in numerical form and analyzing it by using mathematical methods, particularly statistics. (Leedy & Ormrod 2001; Williams, 2011) stated that quantitative research method is concerned with quantifying and analyzing variables in order to obtain results. It entails the use and analysis of numerical data using specific statistical techniques to answer questions. The researcher needs to select the appropriate methodology and design to manage this research in order to achieve the desired data.

### 2.3 Statement of the Problem

Bilingualism is not a new phenomenon, and people have been speaking more than one language since ancient times(Cenoz, 2013). This study comes out of the quest to discover and

examine how bilingualism affects the human mind and cognitive abilities. In addition, it will look at its consequence on the educational side as well as the psychological side.

### 2.3.1 Research Questions

For the purposes of developing this research, we raised a set of questions in order to improve the research's accuracy :

1. Does speaking two different languages affect the human mind in its way of thinking?
2. What are the advantages of being a bilingual person?
3. How does the brain of bilingual people differ from monolingual people?
4. Does bilingualism influence cognitive aging?
5. Does bilingualism affects the learning process?

### 2.3.2 Hypotheses

According to Derek Jansen(*June 2020*) , a hypothesis is a statement based on facts that explains why or how something works (or some reasonable assumptions), he also claimed that to be considered a scientific hypothesis, it must be testable. Otherwise it is not a hypothesis. Based on the previous questions, we formed some hypothesis in order to collect data and analyze the results :

1. Bilingual mind can have better attention and task\_switching capacities.
2. A bilingual person can have a number of cognitive and creative strength.
3. Bilingual brains and monolingual ones can differ in terms of preservations.
4. Bilingualism can protect against illnesses such as Alzheimer.
5. Being a bilingual may help to get better process information in the learning environment.

### 2.3.3 Objectives of the Study

The main objectives this study aims to reach are :

- To highlight the impacts of being a bilingual person.
- To show the effectiveness of bilingualism on the human mind and on cognitive abilities.
- To know the diffrence between a bilingual person and a monolingual person.
- To know if being bilingual affects the learning process.

### 2.3.4 The Sample of the Study

In order to develop this research there must be a sample to rely on , a sample can be defined as follows :

*"In research terms, a sample is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole. The purpose of sampling is to conclude populations from samples, we must use inferential statistics, to enable us to determine a population's characteristics by directly observing only a portion (or sample) of the population. etc"*

*( Information sheet 16. Education Centre, The Hillingdon Hospital. March 2006)*

According to what has been mentioned above, the researchers have selected the eighteen participants randomly from different groups in order to avoid bias and make the study more reliable and objective.

"Random sampling" indicates that each member of the target population has an equal and independent probability of being chosen. The term "independent" refers to the fact that the choice of one element has no bearing on the choice of others. 'Simple' does not imply that random sampling is easier to implement than other approaches, but rather that procedures are taken to assure that nothing else than chance influences selection each time a decision is made (Sapsford and Jupp, 2006: 30).

### 2.3.5 Research Instrument

The instrument used was a questionnaire which is essentially a structured technique for gathering primary data; it is typically a series of written questions to which respondents must respond (Bell 1999). Questionnaires, when used correctly, can be an excellent way to collect quantitative data about people's attitudes, values, experiences, and past behavior. Devaus (1996) saw the questionnaire in a much wider context (namely as a technique in which various persons are asked to answer the same set of questions).

## 2.4 Description of the Questionnaire

Gay and Airasian (2000) briefly had defined the questionnaire as ‘ *several questions related to a research topic*’ (qtd.in Dale T.Griffiee, 2012 : 135). To point out, the research will adopt a formal standardised questionnaire to the present study(see appendix A).this research is looking to test and quantify hypotheses and analyze data statistically, the questionnaire consists of a mixture of multiple-choice questions, close-ended ones and alternative response questions(true/false) to gather the desired data, to be noticeable. This questionnaire was formed and based on the personel experience of the researchers. the first type of questions gives the students liberty to choose any answer that suits him/her from the given ones.The second part of the questions is a combination between multiple choices and dichotomous questions(yes,no). The last type of questions should be answered by the students with whether the given sentences are true or false. Accordingly, including different types of questions enables the researcher to find out different points of view, and makes the participants answer with honesty due to the anonymity. Furthermore, since the questionnaire is for first year LMD students, the researchers attempted to make the words simple to avoid any misunderstanding. This questionnaire consists of three parts, and each part has its own purpose.

In the first part, participants were asked some general questions concerning them and their background. The second part was about the student’s bilingualism concerning their language skills and their opinion about some effect of bilingualism. Finally, the last part consisted of questions about the effects of bilingualism on the human mind and cognitive abilities.

<b>Parts</b>	<b>Type of question</b>	<b>Number of questions</b>
<b>Part one</b>	General questions concerning them and their background	<b>4</b>
<b>Part two</b>	Student’s bilingualism concerning their language skills	<b>8</b>
<b>Part three</b>	The effects of bilingualism on the human mind and cognitive abilities	<b>5</b>

**Table 1:** the Division of Questions in the Questionnaire.

## Conclusion

This chapter captures the essence of the study by providing information about the study's participants, tools, methodology, and research focus, and how the researchers dealt with the research context. In the beginning, the methodology was introduced, then the problem, the questions, and the hypotheses were presented, in addition, the sampling was exposed. Furthermore, the researchers have described the questionnaire which was addressed to first-year LMD students of the English Department of Amar Telidji University, Laghouat..

Ultimately, this chapter was an introduction to what we are about to deal with in the coming chapter which is devoted to data analysis, findings, discussion, and recommendations.

## ***Chapter Three: Data Analysis, Findings, Discussion and Recommendations***

## Introduction

As previously stated, this chapter will be entirely devoted to data analysis and findings, as well as offering some suggestions and recommendations on how to be bilingual and how bilingualism affects the human mind and cognitive abilities, either positively or negatively. It thus throws a shed of light on the general findings of the questionnaire through discussing them in detail, and each question of the questionnaire will be analyzed based on various quantitative analysis measures, the obtained results will systematically discussed through using a set of tables, pie charts and bar charts. Additionally, each university student should consider the possible recommendations, as they will help them and provide an overview of the benefits of being bilingual in the future.

### 3.1 Questionnaire Analysis and Interpretation

The questionnaire is designed to collect the necessary data for the researcher to use quantitative analysis to answer the research questions. According to Creswell (2002), quantitative research is the process of collecting, analyzing, interpreting, and writing the findings of a study. Furthermore, quantitative research entails the collection of data in order for information to be quantified and statistically treated in order to support or refute “alternative knowledge claims” (Creswell, 2003, p. 153).

As a result, the results will be consolidated in tables, figures, (pie charts and bar charts ) In case it is required.

#### 3.1.1 Analysis of the First Part

The following table shows the student’s sample

university	Student’s sample		
	M	F	Total
Amar Telidji	8	10	18
Laghouat			

**Table 3.1** Student’s sample

The results of the first and the second question showed that the sample consists of eight males and ten females. They are aged between 18 and 33 years old, and most of them are 19 years old.

**Question three:** What was the socio-economic situation of your family?

it is important to know that the abbreviation N stands for the number of respondents and (%) stands for the percentage this number represents.

<b>Options</b>	<b>N</b>	<b>%</b>
<b>Upper class</b>	3	16.66%
<b>Middle class</b>	14	<b>77.77%</b>
<b>Lower class</b>	1	5.55%
<b>Total</b>	18	100

**Table 3.2 :** Social classes of the respondents.

From the results of table 3.2, it is evident that the majority of the students are from the middle class **77.77%** , and 16.66% are from the upper class and the rest are from the lower class.

**Question four:** Indicate the situation that best describes your childhood.

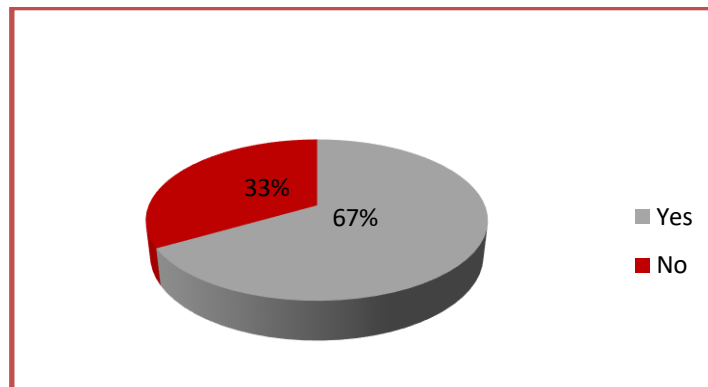
<b>Option</b>	<b>N</b>	<b>%</b>
<b>Raised by bilingual parents</b>	7	<b>38.88%</b>
<b>Raised by only one bilingual parent</b>	4	22.22%
<b>Learned a second language at school or private language schools.</b>	7	<b>38.88%</b>
<b>Total</b>	18	100

**Table 3.3 :** Bilingual situation

Table 3.3 reveals that **38.88%** of the respondents were raised by bilingual parents, which means both of their parents speak two different languages, the table also shows that **38.88%** of the respondents have learned a second language during school or have learned in private language schools.while 22.22% of the respondents were raised by only one bilingual parent, which means that either the father is bilingual and the mother is monolingual or vice versa.

### 3.1.2 Analysis of the Second Part

**Question one:** Do you consider yourself bilingual? if yes, for what two languages?



**Figure 3.1:** Bilingual and non-bilingual students

Figure 3.1 shows that most of the students are bilingual **66.66%**, and the languages they consider their selves bilingual in, are: Arabic-English; Arabic-French; Arabic-Turkish; and English-Spanish. But most of them are bilingual in Arabic and English languages. On the other hand, the rest of the students(33.33%) do not consider themselves bilinguals.

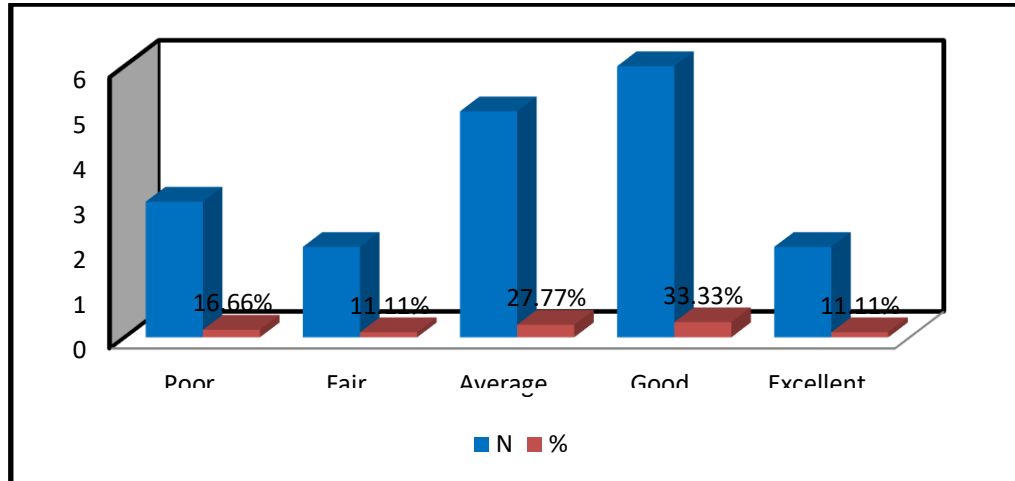
**Question two:** How bilingual do you consider yourself?

Option	N	%
Highly proficient in both languages	12	<b>66.66%</b>
Highly proficient in the first language but not proficient in the second language.	6	33.33%
Total	18	100

**Table 3.4:** Student's bilingual proficiency.

As shown in table 3.4, most of the students (66.66%) are highly proficient in both languages, for example in this case and according to the previous question(question 1), they are proficient in Arabic language and English language. Some of them 33.33% are highly proficient in only the first language but not proficient in the second language.

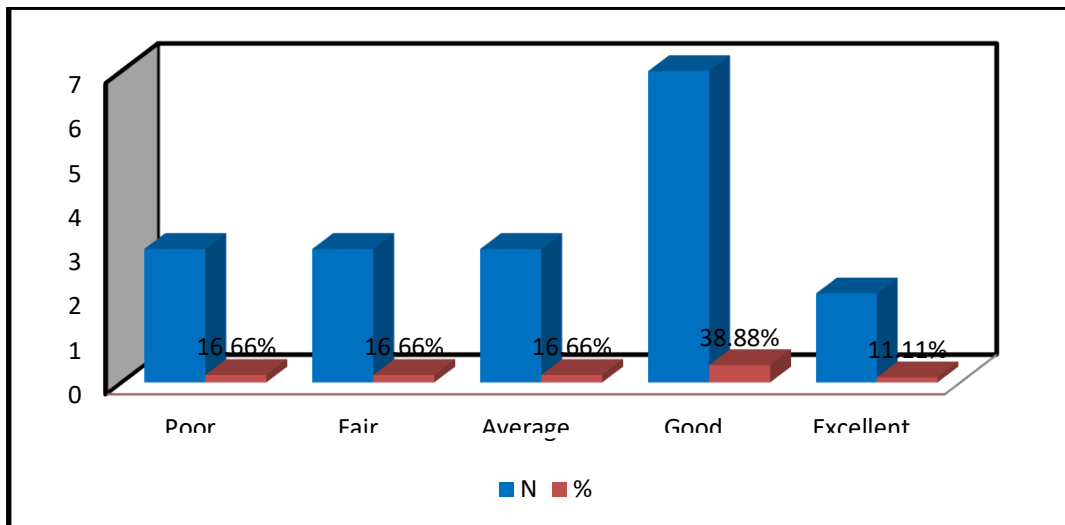
**Question three:** How bilingual do you consider yourself with respect to your speaking ability?



**Figure 3.2:** Student's bilingualism concerning their speaking ability.

The results are obtained from the figure 3.2 Show that **33.33%** from the percentage of students are good at speaking two languages, 27.77% are average, 16.66% of the total are poor, and the rest are either fair or excellent.

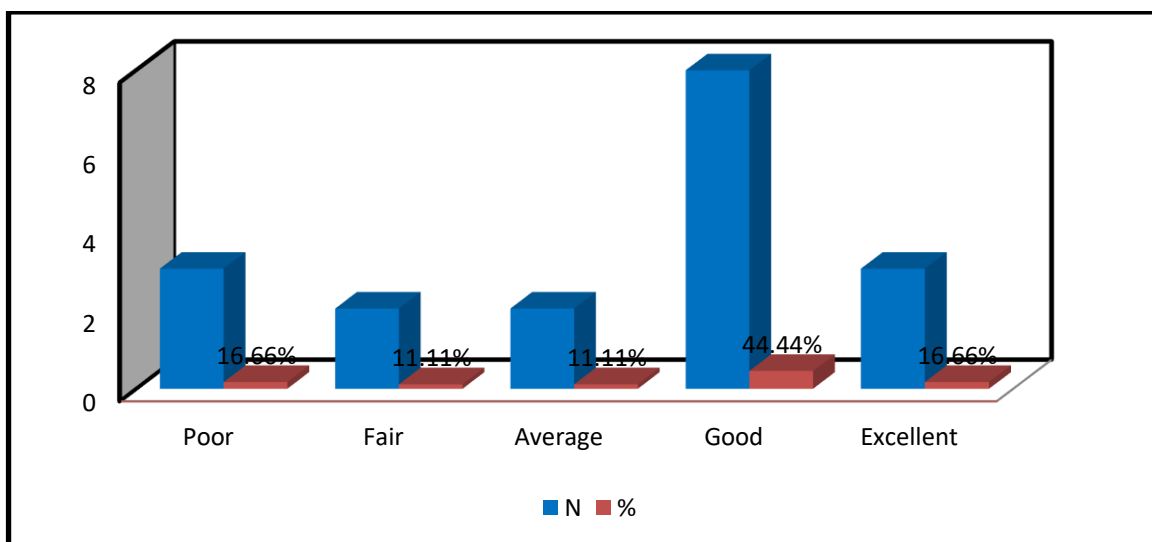
**Question four:** How bilingual do you consider yourself with respect to your writing ability?



**Figure 3.3:** Student's bilingualism concerning their writing ability.

Figure 3.3 shows that **38.88 %** of the bilingual students are good at writing which shows that they access more than one language during writing, and this is one of the great impacts of being a bilingual

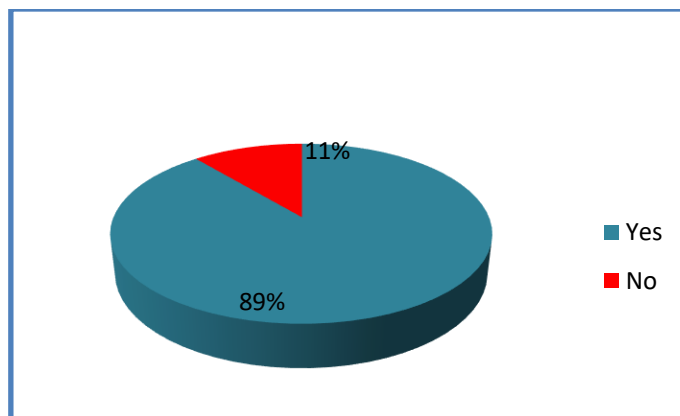
**Question five :** How bilingual do you consider yourself with respect to your listening ability?



**Figure 3.4:** Student's bilingualism concerning their listening ability.

Figure 3.4 reveals that student's bilingualism concerning their listening ability is pretty good with a percentage of **44.44%**. Whereas 16.66% of the respondents are poor, the same percentage 16.66% are excellent, the rest are fair and average bilinguals respected to the listening ability.

**Question six :** Do you think that being bilingual makes you good at communicating with foreigners?



**Figure 3.5:** bilingualism and communication with foreigners

According to figure 3.5, it is evident that being a bilingual is really helpful and good when it comes to communication with foreigners. **89%** of the respondents agreed on that.

**Question seven:** Do you face problems while learning a new language? And what are they?

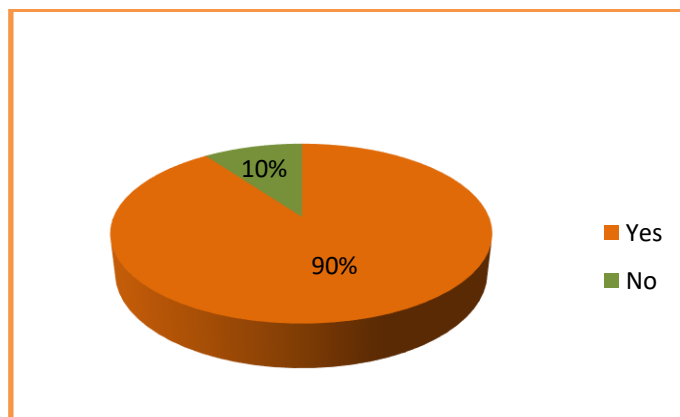
Options	N	%
No	1	5.55%
Sometimes	10	<b>55.55%</b>
Often	5	27.77%
Always	2	11.11%
<b>Total</b>	18	100%

**Table 3.5 :** problems while learning a new language.

Based on the results that are obtained from the table 3.5 shows that most of the students with a percentage of **55.55%** do face problems sometimes while learning a new

language. Among these problems, pronunciation problems. Furthermore, they seem to have difficulties with vocabulary and grammar.

**Question eight:** In your opinion, does bilingualism facilitate our learning process?



**Figure 3.6 :**Bilingualism effect's on the learning process.

From the results of figure 3.6, we notice that **90%** of the students answered with : yes, bilingualism do facilitate our learning process. While only 10% disagreed.

### 3.1.3 Analysis of the Third Part :

**Question 1:** Children learn easily a new language than adults.

Option	N	%
True	12	66.66%
False	6	33.33%
<b>Total</b>	<b>18</b>	<b>100%</b>

**Figure 3.6:** Learning a new language for children compared to adults.

From figure 13, we notice that the majority of the participants with a percentage of **66.66%** approved that learning a new language is much easier for children than for adults; however, 33.33% stated that this is inaccurate.

**Question 2:** Bilingualism has negative effects on the human mind.

Option	N	%
True	4	22.22%
False	14	<b>77.77%</b>
<b>Total</b>	<b>18</b>	<b>100%</b>

**Table 3.7 :**Bilingualism effects.

From the results, we find out that **77.77%** of the participants approved that bilingualism does not have any negative effects on the human mind. Others 22.22% believe that it has some.

**Question 3:** The brain of a bilingual processes language differently from that of a monolingual.

Option	N	%
True	14	<b>77.77%</b>
False	4	22.22%
<b>Total</b>	<b>18</b>	<b>100%</b>

**Table 3.8 :**Bilingual brain and the monolingual one.

From the findings above, we find out that **77.77%** of the participants responded by saying it is true that the brain of a bilingual processes language differently from that of a monolingual. Whereas, 22.22% of them think that this is unreliable.

**Question 4:** Bilinguals are more open-minded than Monolinguals.

Option	N	%
True	16	<b>88.88%</b>
False	2	11.11%
<b>Total</b>	<b>18</b>	<b>100%</b>

**Table 3.9 :**Bilinguals compared to monolinguals

Through the presented results, we can denote that **88.88%** of the participants agree that bilinguals are more open minded than monolinguals .

**Question 5:** Bilingualism protects you against some illnesses and mental aging.

<b>Option</b>	<b>N</b>	<b>%</b>
<b>True</b>	<b>11</b>	<b>61.11%</b>
<b>False</b>	<b>7</b>	<b>38.88%</b>
<b>Total</b>	<b>18</b>	<b>100%</b>

**Table 3.10:** bilingualism effecton on health

The results of this question reveal that **61.11%** of the respondants agree with that bilingualism protects against mental aging and some illnesses such as Alzeheimer and the development of Dementia.

### 3.2 Disscussion of the Questionnaire Results

From the analysis of the first part, in which participants were asked some general questions concerning them and their background only to know who are we dealing with, it can be noted that over 66.66% of the participants are from the middle class, that some of them were raised by bilingual parents and others have learned the second language at school or private language schools. A lot have added that they learned the second language from the internet or by practicing with their friends or families.

The second part of the questionnaire reveals that the majority of the students are bilinguals and highly proficient in both languages. In this part, the researchers attempted to discover the student’s bilingualism concerning their speaking, writing, and listening abilities. After the analyses of the questions of this part, it is noticed that bilingualism do help the students, because of the reason that bilingualism has a lot of positive impacts that are helping them in their educational career as well as their everyday life, not to mention its significant role assisting them to expand their thoughts. Yet, the fact that there are other students who are incurious about beign bilingual cannot be denied. The participants also have mentioned that sometimes they face some problems while learning a new language, among these problems, pronunciation problems. Furthermore, they seem to have

difficulties with vocabulary and grammar. A large number of the participants asserted that bilingualism contributes to raising their skills of writing and thinking to a higher rank. Nevertheless, some participants do not agree with that, because they think that it has some negative aspects either for instance, they claim that when having the ability to speak two languages it sometimes confuses them and the person they are communicating with, they may struggle to get along in monolingual societies, besides they stated that studying new languages can shift the focus of the student.

The analysis of the third part supports the second, third, and fourth hypothesis. It reveals that more than half of the respondents confirmed that bilingualism has positive effects on the human mind, also bilingual students showed several of cognitive and creative strength because bilingualism provided them with the opportunity to increase their awareness of other cultures, 77.77 percent of respondents admitted that it helped them become better and more open-minded. Furthermore, being bilingual exposes the individual to a wide range of customs, ideas, and perspectives from various cultures. Of course, being non-bilingual does not preclude you from learning a second language, but bilingual education allows for a more immersive experience.

It is quite necessary to know the problems that are faced by students during learning a new language and to give it a try to solve them. According to the findings, nearly 60% of the participants have problems with vocabulary, grammar, and pronunciation, which may impact their understanding of the context. As a result, the current chapter will include a number of suggestions, tips, and recommendations.

### 3.2.1 Discussion of the Findings

The current study's questionnaire was used to assist the researcher in collecting a large amount of data and validating the proposed hypotheses. Its main goal was to investigate the effects of bilingualism on the human mind and cognitive abilities, as well as how it affects students' psychology and educational system.

The questionnaire was also used to study opinions of the first-year LMD student of the English language about the importance of being bilingual and if it affects their lives in some domains. The questionnaire data show that the majority of participants believe that being bilingual has the capacity to produce, reform, and influence a student's character, personality, and tendencies. Most of the students 61.11% agreed on that bilingualism

protects us against mental aging as well as Alzheimer, there have been many studies proving that being bilingual can benefit one's health. Researchers recently found that there is growing evidence to suggest that bilingualism can delay the onset of Dementia and Alzheimer disease.

From the results obtained from the answers of the participants, it is clear and evident that bilingualism does affect the learning process but in a very good way, according to their experience, they became better in their studies.

It should be highlighted that the findings of this study validated the researcher's proposed hypothesis in order to answer the preceding questions to get at the desired results.

### 3.3 Recommendations and Suggestions

Depending on what has been found in the general results and presented above, several recommendations will be suggested, monolingual students need to learn new languages because being bilingual has the advantage of allowing you to see the world in different ways. Some even claim that speaking two languages can feel like having two different personalities at times. Bilinguals are used to constant transition. Because they already have more than one point of view on the world, they are usually less affected by changes in the environment and more open to new things and new experiences. Again, students need to be bilinguals for the sake of having faster stroke recovery and lower stress levels. Furthermore, a bilingual person can have a number of cognitive and creative strengths as well as it affects the human mind for instance in terms of preservations.

It's not too late to start learning a language! Although it is easier to learn a language as a child, it is possible to learn a language as an adult. Why not give your children the advantage of being bilingual if you have them at home (brothers or sisters or even your own kids)? Even if children do not become bilingual, learning any language can be beneficial. Remember that monolingualism (being monolingual) is in the minority, and more and more people are discovering the benefits of bilingualism.

It's important to note that the researchers had several limitations, such as a small number of subjects (18 students only). Another key aspect to remember is that the conclusions of the researcher cannot be generalized, and the area needs to be researched

further. Future researchers should look on obtaining large numbers of participants in EFL classrooms with diverse degrees of proficiency.

## Conclusion

In summary, this study used a questionnaire as the research instrument, which allowed us to arrive at the findings and results. The researchers thoroughly examined each section of the questionnaire, and then attempted to demonstrate the benefits of being bilingual, as well as how it can affect the learning process and its impact on the human mind and cognitive abilities. He also presented the data, and the impact of bilingualism was discussed in this chapter. Finally, a set of recommendations was offered based on the main conclusions of the studies as well as some gathered information.

To summarize, bilingualism can be a powerful tool for improving a student's level and facilitating the learning of a third language. It also aids the brain in resolving internal conflict and strengthens the mind's cognitive muscles.

# *General Conclusion*

## General conclusion

For the past few decades, there has been considerable debate surrounding the issue of bilingual education in Canada and around the world. In Canada, the issue has become highly politicized as it stems from a long history of French-language rights. In 1963, the Government of Canada implemented the Royal Commission on Bilingualism and Biculturalism with the hope of creating a bilingual country. Consequently, French immersion programs were disseminated across the country during the 1970s. Not only has bilingual education been a “hot topic” among scholars and politicians, but the issue of bilingualism has also been highly publicized in pop culture media as today’s parents are faced with many educational choices. Specifically, parents are required to make a difficult decision as to whether to send their children to an English, French, or French immersion school. Parents must intelligently weigh the pros and cons of each program to decide the best fit for their children. To add to the complexity of this decision, the research evidence and media anecdotes often provide contradictory statements and mixed results. However, it is important to note that as with many educational issues, it is difficult to control for many external variables that may affect the outcomes of any study, namely the complex background factors (i.e. socioeconomic status and gender.) Thus, parents, policymakers, and educators must be wary of the potential limitations of the studies when interpreting the results. (Jessica Pownall)

Bilingualism is more complex than yes or no categorization. Bilingualism must include the degree of proficiency in each language and such as what it means to know a language must be considered factors that facilitate or hinder bilingualism must be considered .in addition to that, bilingualism may have positive or negative consequences for language skills.

The questionnaire was chosen as one type of data collection resource for this study. It was created for first-year Lmd English language students. The instrument used aided the researcher in gathering sufficient amounts of data. Furthermore, the investigator provided a detailed description of the sampling, the design of the questionnaire, and the findings. Furthermore, the results show that bilingualism helps students perform better in most domains such as education, communication, psychological attitude, and so on. However, the general findings reveal several issues that students face. The final chapter provided

numerous suggestions and recommendations on how to be bilingual and how it benefits the human mind and cognitive abilities.

It is necessary to mention that the researcher faced some constraints, such as a limited number of participants (18 students only). Another important point to note is that the researcher's findings cannot be generalized, and the area needs to be further investigated. It would be extremely beneficial if future researchers investigated gathering numbers of participants with varying levels in EFL classrooms.

# *Appendices*

## **Appendix A: Student's Questionnaire**

# **The Effects of Bilingualism on the Human Mind and Cognitive Abilities**

Be assured that your participation is voluntary and will be kept private. Also, your data are anonymous and confidential.

---

Hello dear students:

First of all, I would like to thank you for taking part in this five-minute questionnaire. It aims at collecting your personal point of view and your own thoughts about the effects of Bilingualism on the human mind and cognitive abilities. Answer the questions below ticking (✓) the right answer, or just write down the answer with brief sentences if needed.

### **Part one:**

1) Age.....

2) Gender:

Male                       Female

3) What was the socio-economic situation of your family?

Upper class.

Middle class.

Lower class.

4) Indicate the situation that best describes your childhood :

Raised by bilingual parents.

Raised by only one bilingual parent.

Learned a second language at school or private language schools.

Other option:.....  
.....  
.....

**Part two:**

1) Do you consider yourself bilingual? if yes, for what two languages?

- Yes                       No

The two languages are.....

2) How bilingual do you consider yourself?

- Highly proficient in both languages.  
 Highly proficient in the first language but not proficient in the second language.

3) How bilingual do you consider yourself with respect to your speaking ability?

- Poor.  
 Fair.  
 Average.  
 Good.  
 Excellent.

4) How bilingual do you consider yourself with respect to your writing ability?

- Poor.  
 Fair.  
 Average.  
 Good.  
 Excellent.

5) How bilingual do you consider yourself with respect to your listening ability?

- Poor.  
 Fair.  
 Average.  
 Good.  
 Excellent.

6) Do you think that being bilingual makes you good at communicating with foreigners?

- Yes                       No

7) Do you face problems while learning a new language? And what are they?

- No
- Sometimes
- Often
- Always

8) In your opinion, does bilingualism facilitate our learning process?

- Yes                       No

### **Part three:**

According to you, are the following statements True or False:?

1) Children learn easily a new language than adults.

- True                       False

2) Bilingualism has negative effects on the human mind.

- True                       False

3) The brain of a bilingual processes language differently from that of a monolingual.

- True                       False

4) Bilinguals are more open-minded than Monolinguals.

- True                       False

5) Bilingualism protects you against some illnesses and mental aging.

- True                       False

**Thanks, your contribution is greatly appreciated**

## **Appendix B: Official Statistics of English Department Students**

### **Université Amar Telidji de Laghouat**

**Faculté: FACULTÈ DES LETTRE ET LANGUES ÉTRANGÈRES**

**Dèpartement: LANGUES ET LITTERATURE ANGLAISES**

**Annèe Universitaire: 2020/2021**

### **NOMBRE TOTAL DES INSCRITS EN DEP ANGLAIS**

<b>Annèe</b>	<b>MAS</b>	<b>FEM</b>	<b>TOTAL</b>
<b>1 er lic</b>	<b>98</b>	<b>88</b>	<b>186</b>
<b>2ème lic</b>	60	113	173
<b>3ème lic</b>	49	94	143
<b>1er Mas</b>	99	146	245
<b>2ème Mas</b>	44	118	162
<b>TOTAL</b>	350	559	909

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## ملخص

تهدف الدراسة الحالية إلى إظهار تأثيرات ثنائية اللغة على العقل البشري والقدرات المعرفية ، وكذلك كيف يختلف الدماغ ثنائي اللغة عن الدماغ أحادي اللغة. تناقش الدراسة أيضًا العلاقة بين ثنائية اللغة والشيخوخة العقلية وأمراض مثل الزهايمر. كما نظر الباحث في تصورات الطلاب لل صعوبات التي قد يواجهونها أثناء تعلم لغة جديدة. يُعتقد أن ثنائيي اللغة يمتلكون مجموعة واسعة من القدرات المعرفية والإبداعية. علاوة على ذلك ، فإن كونك ثنائي اللغة قد يساعد في المعالجة المعرفية في البيئة التعليمية وكذلك في الجانب العقلي. تم استخدام استبيان لجمع المعلومات ، كما استخدم الباحث المنهج الوصفي والمنهج الكمي. تظهر نتائج هذه الدراسة أن كونك ثنائي اللغة مفيد للغاية ، من الناحيتين النفسية والتعليمية. تظهر النتائج أيضًا أن غالبية المستجيبين وافقوا بشدة على أهمية تعلم لغة جديدة وأن يصبحوا ثنائيي اللغة.

**الكلمات المفتاحية:** ثنائية اللغة ، أحادية اللغة ، القدرات المعرفية ، الشيخوخة العقلية.

## Résumé

La présente étude vise à démontrer les effets du bilinguisme sur l'esprit humain et les capacités cognitives, ainsi que sur la différence entre un cerveau bilingue et un cerveau monolingue. L'étude traite également du lien entre le bilinguisme et le vieillissement mental et des maladies comme la maladie d'Alzheimer. Il s'est également penché sur les perceptions des élèves quant aux difficultés auxquelles ils pourraient être confrontés lors de l'apprentissage d'une nouvelle langue. On pensait que les bilingues avaient un large éventail de capacités cognitives et créatives. De plus, être bilingue peut aider au traitement cognitif dans l'environnement éducatif ainsi que sur l'aspect mental. Un questionnaire a été utilisé pour collecter les informations, de plus le chercheur a utilisé une méthode descriptive et une approche quantitative. Les résultats de cette étude montrent qu'être bilingue est extrêmement bénéfique, à la fois psychologiquement et pédagogiquement. Les résultats montrent également que la majorité des répondants étaient fortement d'accord sur l'importance d'apprendre une nouvelle langue et de devenir bilingue.

**Mots-clés :** Bilinguisme, monolingue, capacités cognitives, vieillissement mental.