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**Investigating Teachers' and Students' Attitudes towards
the Use of English as a Medium of Instruction in Higher
Education in Algeria.**

**The Case of Second-Year Students and Teachers
of computer science faculty, University of M'sila**

**Dissertation Submitted to the Department of English in Partial fulfillment the
Requirements for the Master Degree**

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Dedication

All praise is to Allah, the most graceful and most compassionate the Almighty, who gave us strength and health to accomplish this work

I dedicate this work:

To the memory of my beloved father “Ibrahim”

you are Forever in our hearts

To the apple of my eye, my mother” Nadia”, the source of my happiness and strength. Thank you for your unconditional love, support and patience.

To my dear sister Sonia for her support, encouragement and motivation throughout the journey

To my siblings: Khalifa, Iman, Karim, Sonia and Abdulrahman

I couldn't make it without you

Love you all.

To my dear aunts: Djanet and Fatma.

To my dear Uncle: Amar and his daughters.

To my nephews: Khalil, Sohaib, Ayman, Amir and Yousef.

To my nieces: Omaima and Noursin.

To my best friend and partner Amani thank you for everything.

Chahinez

Dedication

In the Name of Allah, Most Gracious, Most Merciful

I dedicate this work to:

My beloved family

*To the “Queen of hearts”, dear mother ‘Samia’, for her endless love,
patience, sacrifice and support.*

*To the best father in the world, dear Father " Hocine" who has always
been proud of me and believed in me.*

My beloved sister ‘Amina’

My little brothers ‘Amine & Ilyas’

To my partner ‘Chahinez’ for being humble and cooperative

To my friends ‘Amel & Karima’

*To all those who have been helpful, caring, and patient, I dedicate this
simple work.*

Amani.

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Abstract

The study aims to investigate the attitudes of both teachers and students towards the use of English as a medium of instruction in the Faculty of Information Technology and Computer Science at M'sila University. Building upon previous works in this area, the study seeks to understand the perspectives and preferences regarding the use of English as a potential alternative to French within Algerian universities. To accomplish the research objectives. Quantitative and qualitative data were collected through the administration of two questionnaires, the first one was published online and seventy-five (75) second-year information technology and computer science students respond to it, the second questionnaire was handed out to 21 teachers who answered the questionnaire given to them along with an interview conducted with the head of the department. By utilizing this methodology, the study sought to capture a comprehensive understanding of the attitudes toward English as a medium of instruction. The findings of this study shed light on the participants' recognition of the importance of English as a medium of instruction in the Faculty of Information Technology and Computer Science. Notably, a majority of the participants exhibited positive attitudes toward the utilization of English in their academic pursuits. These findings contribute to the existing body of knowledge and offer valuable insights for learners, teachers, and policymakers. Through exploring the perspectives of both teachers and students, the study offers a deeper understanding of the potential pedagogical implications of implementing English as a medium of instruction in higher education in Algeria.

Keywords: English as a medium of instruction, teachers' attitudes, students' attitudes, the head of the department, faculty of information technology and computer science.

List of Abbreviations

% : Percentage.

CCT: Cognitive consistency theory.

EFL: English as Foreign Language.

EMI: English as a Medium of Instruction.

ESP: English for Specific Purposes.

FMI: French as a Medium of Instruction.

IELTS: International English language testing system.

ITCS: Information technology and computer science.

MOI: Medium of Instruction.

Q : Question.

TAM: Technology acceptance model.

TOEFL: The test of English as a foreign language.

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ملخص

General

introduction

1. Background of the study:

English as a facto-global lingua franca is increasingly becoming the most powerful language due to globalization. Crystal, D. (2003) stated that English has emerged as a global language with an estimated 1.5 billion speakers worldwide, encompassing both native and non-native speakers (p.6). English has proven its effectiveness in various domains such as education, politics, health, business, economics, science, and technology, Graddol, (1997). Despite Being fully aware of the significance of English as a foreign language and its contributions to scientific studies, technological innovation, and educational advancement, Algerian authorities have not yet taken any concrete steps towards the formal integration of English by embracing the language in its official documents, and legal and administrative transactions, Rahmani (2021). Nevertheless, the Ministry of higher education and scientific research invited authorities to incorporate English into higher education.

However, Algeria is a linguistically complex country in nature, and implementing the English language as a medium of instruction and research in higher education will not be an easy task. considering the dominance of the French language as a former colony in Algeria since 1830, the attempt of demolishing French and replacing it with English in universities as a medium of instruction requires time, effort, and a multidimensional program.

The use of English as a medium of instruction in technology-related fields has gained significant attention in recent years. Due to its dominance as a global language, proficiency in English has become crucial for individuals pursuing careers in technology. This shift towards English-medium instruction is driven by the recognition that English is the dominant language in scientific research, technological advancements, and international collaborations. Additionally, English proficiency provides students with access to a vast range of resources, literature, and professional opportunities in the field of technology. there is a growing need to investigate the attitudes and perceptions of teachers and students regarding the use of English as a medium of

instruction in higher education. Understanding the views and experiences of both students and teachers can help shape effective instructional strategies, curriculum development, and language support initiatives to enhance the learning outcomes and success of students in technology-related disciplines.

In light of what has been discussed. This research paper aims to investigate the attitudes of teachers and students toward implementing English as a medium of instruction in higher education in Algeria.

2.Statement of the Problem:

The global dominance of the English language encompasses economy, communication, technology and academic advancement which led to an increasing demand for teaching and learning this language. Despite that, many countries, including Algeria, still prioritize French as the first foreign language taught in middle and secondary schools. The historical influence of French colonization in Algeria for over a century has established French as a widely spoken second language and the language of instruction in most scientific disciplines. However, recently, there has been a growing interest among Algerian policymakers to enhance English language teaching and gradually increase its prominence. Suggestions have been made to integrate English into primary schools and utilize it as universities' main medium of instruction. This shift in educational policy has sparked public debates among teachers and students, each with their own opinions and perspectives on this new direction in teaching. By 2022, the Ministry of Education has actively implemented the substitution of French with English in primary schools. The next anticipated step is to adopt English as the primary medium of instruction in higher education.

3. Significance of study:

The present study holds significant importance as it aims to provide a comprehensive understanding of the challenges and opportunities associated with the implementation of English as a medium of instruction (EMI) in Algeria. By investigating the attitudes of teachers and students, valuable insights can be obtained regarding their perceptions, expectations, and experiences about EMI. These findings provide rich data to decision-making, curriculum development, and pedagogical practices in ITCS, facilitating adjustments to better meet the needs and preferences of the Algerian university. Moreover, this research contributes to the existing body of knowledge on English instruction in higher education, serving as a valuable resource for future studies and guiding the enhancement of language policies and practices within the Algerian ITCS sector.

4. Research Question:

- The present study aims to answer the following questions:
- What are the attitudes of teachers and students of the Faculty of Information Technology and computer science towards using English as a medium of instruction in higher education?
- What challenges may teachers and students face while using English as a medium of instruction instead of French?
- What procedures can institutions follow to face the difficulties that may arise after integrating English as a medium of instruction in Algerian universities?

5. Research hypotheses:

Based on the above questions and aims, it is possible to assume the following hypotheses:

- Teachers and students of the Faculty of Information Technology and computer science hold a positive attitude towards using English as a medium of instruction in the Algerian university.
- Teachers and students of the Faculty of Information Technology and computer science hold a negative attitude towards using English as a medium of instruction in the Algerian university.

6. Research Objectives:

The primary focus of this present study is:

- To identify the attitudes of teachers and students of the Faculty of Information Technology and computer science towards the use of English as a medium of instruction MOI in higher education.
- To examine the challenges and difficulties that teachers and students face when using EMI in the Faculty of Information Technology and computer science.
- To make recommendations that can facilitate the implementation of EMI in the faculty of Information technology and computer science.

7. Research methodology and data collection:

This study adopts a quantitative research method with a descriptive approach. It aims to gather structured data on the attitudes towards English as a Medium of Instruction (EMI). The research design focuses on describing the perceptions of participants without manipulating variables.

The primary objective of this study is to examine the perceptions and attitudes of 21 teachers from the Faculty of ITCS at the University of Mohammed Boudiaf, Msila, towards the English as a Medium of Instruction (EMI). Additionally, an online questionnaire was distributed to 75 out of 284 students to gain insights into their perspectives, beliefs, and attitudes regarding the use of

English as a medium of instruction. The study employed two questionnaires and one informal interview.

By employing these mixed methods, the research endeavors to achieve a comprehensive understanding of the teaching and learning dynamics within classrooms where English serves as the medium of instruction, The Interview was conducted with the headmaster of the faculty of ITCS to investigate the situation of EMI in his faculty and the procedures done to ensure the effectiveness of using EMI in the faculty of ITCS.

8. Structure of the Dissertation:

The dissertation is divided into theoretical and practical parts that comprise two chapters. The first chapter contains two sections, the first section deals with EMI its definition and its significance, its benefits and the challenges that may face teachers and students when using EMI. While the second section is devoted to cover the concept of attitude, types, its components, theories, models and measurements. Whereas, the second chapter is dedicated to the field of work that provides a detailed description of the students' and teachers' questionnaires and the interview with the headmaster of the ITCS faculty in the first section, followed by a discussion of the main findings in section two. In addition to that, the chapter clarifies some limitations of the study and provides pedagogical implications for teachers, students, and policymakers.

Chapter one
Literature review

Introduction:

The global importance of English as a means of communication has led to its widespread use as a lingua franca among individuals with diverse cultural backgrounds. Additionally, the concept of English as a medium of instruction (EMI) has gained increasing recognition within the academic community. The use of EMI in tertiary education has sparked significant debate in recent years. This chapter aims to explore the significance of EMI within the educational system by examining its definition, growth, and challenges faced by EMI instructors. Furthermore, this study examines the benefits and impacts associated with the utilization of English as a medium of instruction, shedding light on its significance within the specific context of Algeria. It explores the advantages brought about by using English as a medium of instruction, as well as the effects it has on various aspects of education in Algeria.

1.1.1 Definition of Medium of Instruction:

Traditionally, higher education institutions have predominantly used the local language as the medium of instruction, which aligns with the learners' mother tongue in many regions worldwide. However, there has been a notable shift in recent times, with English being increasingly employed as the language of instruction, particularly in Europe and various other countries (Dearden, 2014; Doiz et al., 2013). Graddol (2006) asserts that this trend has become so widespread that over half of international students now receive education in English. The rationale behind this surge in English as a medium of instruction is its widespread use for sharing research findings through books, journals, and conferences (Mauranen et al., 2010).

According to Macaro (2018) « The use of the English language to teach academic subjects other than English itself in countries or jurisdictions where the first language of the majority of the population is not English” (p.19).

Baker (2018) asserts that the adoption of EMI in higher education is driven by the globalization of education, the growing demand for English proficiency in professional arenas, and the belief

that using English as the medium of instruction can enhance academic outcomes. However, Doiz et al. (2014) emphasize that EMI brings both advantages and challenges. On one hand, it enables students to develop their English proficiency and prepares them for potential careers in an increasingly interconnected world. On the other hand, it can impede students' comprehension of complex concepts and result in communication difficulties if they do not possess sufficient proficiency in English.

Besides, Dearden (2015) stated that despite the benefits of EMI, there are concerns about how it may affect equity and access to education. Students from disadvantaged backgrounds may struggle to keep up with the language demands of EMI, leading to further inequality in education. For that reason, Lasagabaster et al. (2014) indicated that globally more and more universities are caught up in the rush to offer both undergraduate and postgraduate programs through the medium of English.

1.1.2 The Significance of English as a Medium of Instruction:

English holds a crucial position on the global stage. Its extensive spread and adoption make it an influential language worldwide. As the specification of a global language, it essentially refers to a language that is learned and spoken internationally. According to Crystal (2003), English is recognized as the official language in a majority of countries, making it the most commonly employed language globally. Additionally, it holds the position of being the most widely spoken second language worldwide. Furthermore, it is estimated that over 50% of web pages consist of content in the English.

Graddol (2006) emphasized that English is utilized as an Educational Medium of Instruction (EMI) to provide greater options for an institution's development. Besides, English is an international language that is used by the majority of countries in communication, business, education, diplomacy, technology, and international organizations. Many countries agree to use English as a global language (p. 87).

Additionally, Wanphet and Tantawi (2018) verified that is a widely adopted method of globalization in higher education across the globe. It has evolved from being a foreign language or L2 to the language of academic disciplines in tertiary education. so that, a major outcome of international colleges particularly in terms of internationalization is the adaptation of English as a medium of instruction. Furthermore, Doiz et al. (2013) argued that the dominance of English-medium instruction is strongly entrenched in social, economic, and technological advancements, as well as in international communication. This dominance is a consequence of globalization, which has led to the proliferation of English-medium programs in higher education institutions. Alkandari (2018) English as a medium of instruction has gained immense popularity in recent years, particularly in international universities, because of its ability to provide access to a global audience, improve individual prospects and enhance employability.

Wu (2019) asserted that English as a medium of instruction has become a crucial factor in higher education across the globe. It is recognized as a language that is not only important for multicultural communication but also for academic and professional settings

Karvonen (2017), added that using English as a medium of instruction offers better job opportunities and career development (p. 28). Therefore, most reputable government jobs require a separate assessment to evaluate proficiency in English. Adopting English as a universal language enables individuals to communicate with international customers and vendors, contributing to business growth and income. For instance, Kassim and Ali's (2010) research on Malaysian professionals employed by global corporations revealed that English verbal proficiency is crucial to workplace success (p. 168).

1.1.3 Development of English as a medium of instruction:

As a global language, English has come to dominate in many aspects of life including technology, international communication, and education. This dominance has led to a rise in the use of English as a medium of instruction (EMI) in non-anglophone countries. Students in

countries such as China, Japan and the UAE are taught academic subjects such as science, mathematics, geography and economics in English.

Shang (2009) argued that the recent trend of using English as a medium of instruction can be attributed to several factors including the era of colonialism, globalization, the growth of international trade, and the increasing job opportunities in industries such as tourism, aviation, and information technology as an outcome of World War two. The international education industry has also played a role in promoting English as a medium of instruction. Schools, colleges, and universities offer courses in English to attract international students. English proficiency tests such as Test of English as a Foreign Language (TEOFL) and International English Language Testing System (IELTS) have also helped individuals worldwide to improve their English language skills.

Furthermore, technology has played a significant role in the growth of English as a medium of instruction. Online platforms like Coursera, Udemy, and edX offer courses in English making it possible for individuals to learn from anywhere in the world. It is predicted that the trend of using English as a medium of instruction will continue to grow as the demand for English language skills increases. English has undoubtedly become a universal language, and its importance in education and the workplace cannot be overstated.

The use of English as a medium of instruction (EMI) has witnessed a significant surge worldwide, particularly in non-anglophone countries, where it is replacing English as a foreign language (EFL) for teaching academic subjects including science, mathematics, geography, and medicine. This trend can be understood within the historical context of the English language's migration and spread across the globe. The influence of British colonial power and the emergence of the United States as a dominant economic force has played crucial roles in establishing English as a global language with widespread usage and recognition. As a result, EMI has gained prominence as a means to provide students with direct access to academic content and resources

in English, facilitating their learning and participation in international educational and scientific communities.

Crystal (2003) noted that beginning with the pioneering expeditions to the Americas, Asia, and the Antipodes, the historical story recounts the migration of English across the world. It was an expansion that continued with nineteenth-century colonial activities in Africa and the South Pacific, and which took a major stride forward when it was chosen as an official or semi-official language by numerous newly independent nations in the mid-twentieth century and discussed the historical migration and expansion of English across the globe, ultimately supporting its characterization as a "global language". Every continent currently has an English-speaking population, as well as islands in the three major seas — the Atlantic (St Helena), Indian (Seychelles), and Pacific (Seychelles) (in many islands, such as Fiji and Hawaii). This spread of representation makes the application of the label 'global language' a reality.

The current worldwide dominance of English is mainly attributed to the rise of British colonial power during the late 1800s and the emergence of the United States as a leading economic powerhouse in the 1900s. In the past, people could easily provide a political justification as the sole reason for the international prevalence of English. Pitman (1873) said that 'since The British Empire spans about a third of the earth's area, and British subjects account for nearly a fourth of the world's population,' (p. 289) to validate his projections regarding English being the language of the future.

According to Ferguson (1982), the globalization of English in the latter half of the 20th century is unprecedented. In his introduction to the volume "The Other Tongue" (as cited in Krashru, 1992), Ferguson stated that "There has never been before a single language which has spread [as lingua franca] over most of the world, as English has done this century." (p. 12). This expansion of the language has made English crucial for technology and international communication. Krashru (1992) emphasized the unique position of English as a universal language for cross-cultural communication, which is unparalleled in world history. Essentially, English has become

the language that bridges different cultures and facilitates effective communication among them (p.67).

The global spread of English continues to accelerate, with predictions by Graddol (1997) that the number of native or first-language speakers would decrease while the number of second-language speakers would increase. Crystal (1997) estimated that this trend has already resulted in approximately 33.7 million L1 English speakers across 56 countries, with L2 speakers numbering between 1.2 to 1.5 million. As a result, English has become a recognized global language widely understood and spoken by people of diverse cultures and backgrounds. Phillipson (2016) presents the concept of linguistic dominance to describe situations where one language holds a position of power over others. In light of this, he proposes a framework of linguistic dualism that aims to prevent the establishment of an English-only policy, which could have detrimental effects on native languages. Within this framework, Phillipson emphasizes the importance of preserving cultural heritage and maintaining linguistic diversity, while also recognizing the significance of English as a global language. By advocating for linguistic dualism, he seeks to strike a balance that allows for effective communication in English while safeguarding the integrity and vitality of other languages.

Furthermore, the increasing significance of English as the language of higher education has resulted in many countries embracing English as a Medium of Instruction (EMI) for foreign language teaching (Macaro et al., 2018, p. 36; Wanphet & Tantawi, 2018, p. 145). As a result, academic disciplines such as Science, Mathematics, Geography, and Economics are frequently delivered using English.

Overall, the growth of English as a medium of instruction has become a global phenomenon. The trend is believed to continue with the increasing demand for English language skills in many parts of the world.

1.1.4 The Shift from French to English in Algeria:

The Algerian society finds itself in a critical and delicate period of its history, where the issue of language sparks a recurring debate. The presence of the French language, which has existed for nearly a century and a half in Algeria and neighboring countries such as Morocco and Tunisia, has come under scrutiny since the outbreak of the popular revolt. Many voices now rise against French, viewing it as the language of the colonizer and not an international business language. Instead, proponents argue that English should replace French. ARAB, S. (2019).

This idea of language transition emerged as early as September 2010 when former Minister of Higher Education, Rachid Harraoubia, stated that his department was considering introducing English in universities, particularly in scientific and technological fields. Recently, the former Minister of Higher Education and Scientific Research, Tayeb Bouzid, expressed the need to promote the use of English in research through his official Facebook account, citing its status as the language of international channels and scientific journals. A survey on the replacement of French by English in higher education revealed that 94% of respondents favored the use of English.

While most Algerians support the replacement of French with English in education, such a significant decision requires comprehensive reforms starting from the primary cycle and a long-term strategy. Presently, Algeria lacks the necessary resources and trainers to swiftly transition to English. Additionally, it should be noted that education in Algeria is primarily conducted in Arabic, with the introduction of French starting in the third grade and English in the first year, albeit with limited hours. Therefore, a thoughtful approach that encompasses multiple aspects and involves academics and specialists is crucial for successful implementation.

Moreover, languages cannot simply replace one another, as each language possesses its own importance, richness, and cultural significance. French, in Algeria, extends beyond a mere

language; it is deeply intertwined with Algerian identity, culture, and history. While French may not be an international business language, it remains the language of business for a significant portion of the Algerian population, who utilize it in economic, cultural, artistic, and tourism-related transactions. Thus, transitioning from one language to another, particularly in the realms of work and education, is a complex endeavor.

1.1.5 The Status of English as the Medium of Instruction in Algerian University:

English as the Medium of Instruction (EMI) is a topic of great interest and debate in the Algerian educational system, particularly in university education. Algeria has a rich history and culture that is intertwined with the Arabic language. Arabic is the official language of the country, and French is considered the second language. However, English has gradually emerged as an important language, especially in the field of science and technology.

One of the main reasons why English is being used as a medium of instruction in Algerian universities is the globalization of education. Many Algerian students aspire to pursue higher education abroad, where English is the main language of instruction. Thus, mastering English becomes essential for their academic success. Moreover, the use of English in universities can enhance the visibility of Algerian research internationally and improve their chances of collaborating with other academic institutions across the globe.

Abdelli (2020) assumes that despite the possible benefits of EMI, there are also some concerns. One of the significant challenges is the lack of competent English teachers. There is a shortage of qualified English teachers in Algerian universities, which limits the effectiveness of the EMI policy. Additionally, students who are not proficient in English may experience difficulties in understanding the course content. This issue can lead to the exclusion of students who do not have access to English language education before joining universities.

Instead of focusing on replacing French with English, it is suggested that Algerians prioritize the development of their national languages, such as Tamazight (an ancestral language) and Arabic (the language of the Quran). Algerians should also aim to enrich themselves intellectually and

scientifically by embracing the learning of multiple languages, including English, gradually and extensively. English can be introduced progressively in scientific research and education, recognizing its status as an international language, without eliminating French or any other language.

EMI has emerged in Algerian universities in response to the increasing demand for English language education in the globalized world. While it has its benefits, some challenges need to be addressed, including the lack of qualified English teachers, limited proficiency in the English language among students, and infrastructure deficits. To address these issues, Algerian universities should focus on improving teacher training, language education, and infrastructure. These efforts will enhance English-language education, helping students succeed in their studies and professional endeavors.

1.1.6 Challenges related to implementing EMI in the Algerian University:

Implementing English as a Medium of Instruction (EMI) in Algerian universities has many potential benefits, such as increasing their global visibility and improving the quality of education offered. However, it also presents various challenges that must be overcome to ensure its success. Bradford (2016) Proposed four categories of challenges found in EMI, namely linguistic Challenges, cultural challenges, structural challenges, and identity-related (institutional) challenges.

Linguistic challenges in English as a Medium of Instruction (EMI) programs are commonly experienced by both lecturers and students. Non-native students, in particular, often struggle with understanding the accented English of native lecturers and face difficulties comprehending lecture content delivered in English. Additionally, they encounter obstacles in comprehending academic literature published in English due to their insufficient language proficiency. Consequently, their limited English proficiency hampers their active participation in class discussions. This situation

poses a challenge for teachers who must find ways to accommodate and support students with lower language proficiency to ensure their understanding and engagement in the lessons.

Previous research on EMI implementation in various contexts has identified common challenges and approaches to address them. For example, Pham and Baldauf (2018) found that language proficiency and pedagogical challenges were the most significant barriers to successful implementation in Vietnam. They recommended that "teachers and students should be provided with language support, and appropriate pedagogical training should be given to teachers." Similarly, Ushioda and Dörnyei (2012) who had implemented EMI in Japan suggested that curriculum design should be aligned with the language proficiency level of students and that teachers should be trained to use appropriate teaching strategies.

As Canagarajah (2018) noted, "EMI implementation is not about substituting one language for another. It requires a thorough understanding of the context, goals, and needs of the stakeholders involved." Therefore, it is crucial to involve all stakeholders, including teachers, students, and administrators, in the decision-making process and provide them with the necessary support and resources to ensure the success of EMI implementation.

Cultural challenges, as defined by Bradford (2016), arise from the differences between the characteristics and expectations of students from different cultural backgrounds. These challenges are significantly influenced by the experiences of EMI lecturers and teachers. King (2013) notes that teaching styles that may be intuitive and effective in one cultural context, such as a speaker from Britain using an assertive teaching style, may not align with the predominant learning dynamics in another context, like Thailand, where students prefer a more passive learning approach.

Moreover, Negash (2006) confirms that when English is the medium of instruction, curricula and learning materials are often adapted from other languages and cultural contexts. This can

result in materials that are inadequate in terms of the student's language proficiency and culturally irrelevant to the local student population.

cultural challenges in EMI programs encompass discrepancies in teaching styles, inadequacy and cultural irrelevance of instructional materials, and anxiety regarding the perceived dominance of English over local languages, particularly in contexts where historically marginalized languages are involved.

Bradford (2016) identified structural challenges in English as a Medium of Instruction (EMI) programs that pertain to the overall coherence of the program. These challenges encompass issues like an insufficient number of EMI courses and a lack of support staff who can effectively work with diverse student populations.

Additionally, Byun et al. (2011) highlighted that potential EMI lecturers often hesitate to participate due to a lack of confidence resulting from inadequate training or a lack of financial incentives. The issue of confidence overlaps with the linguistic challenges mentioned earlier, creating a cycle where administrators and potential EMI lecturers perceive a need for exceptionally high proficiency levels to teach EMI courses, yet receive little or no institutional support to attain those levels.

Finally, according to Bradford (2016), the identity-related (institutional) challenge is related to how the EMI program is perceived from the outside and the identity of the EMI program, the lecturers who are teaching the EMI program, and the student's enrollment (p. 12). Institutional identity, particularly the preoccupation with how it is perceived by the rest of the world such as in World 14 rankings, appears to be a growing concern among higher education institutions seeking to internationalize as a key driver of EMI policy (Knight, 2015).

Conclusion:

Section One has examined several key elements pertaining to English as a medium of instruction (EMI) in Algerian universities. It began by providing a definition of EMI and proceeded to explore its development and growing global prominence. The significance of EMI was highlighted, emphasizing its ability to broaden access to global knowledge, enhance international communication skills, and create academic and professional opportunities for students. Additionally, the shift from the French language to English as the preferred medium of instruction in Algeria was acknowledged. However, the section also addressed the challenges associated with implementing EMI in Algerian universities. This comprehensive overview serves as a foundation for understanding the definition, development, significance, and challenges related to EMI in Algerian higher education. It paves the way for further exploration of effective strategies, solutions, and best practices to overcome these challenges and facilitate the successful implementation of EMI within the Algerian higher education context.

Section Two: Attitudes, types, components, theories, models and measurements.

Introduction:

The concept of attitudes is regarded as one of the most extensively researched topics in physiology, social psychology, and other related academic fields, attitudes are complex and multifaceted constructs. therefore, many famous researchers were interested in understanding attitudes as a rich area for investigation.

1.2.1 Definition of Attitudes:

According to American heritage dictionary, the word attitudes originated from the French word “attitude” which means posture or position of the body, the French word is derived from the Italian “attitude” which means disposition or pose. the Italian word is derived from the Latin word “aptitude” which means fitness or ability.

Over time, the word attitudes have come to refer to a person's mental disposition or stance toward something, reflecting the original meaning of posture or position in a metaphorical sense. According to the American psychologist Gordon Allport (1954), "attitudes are probably the most distinctive and indispensable concept" (43), he was considered the father of the study of attitudes, and his works contributed significantly to understanding the nature of attitudes.

Allport (1935) defines attitude as "a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related". (p. 810)

Petty, and Cacioppo (1981) claimed that attitudes are simply pre-evaluated opinions either positive or negative towards an item a human or an occurring situation.

Similarly, Eagly and Chaiken (1993) viewed attitudes as "a psychological tendency expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1)

Apart from this, Kerch and Crutchfield (1948) stated that "An attitude can be defined as an enduring organization of motivational, emotional, perceptual, and cognitive processes concerning some aspect of the individual's world" (p. 152).

1.2.2 Types of Attitudes:

There are several types of attitudes in psychology and social psychology: Positive Attitude, Negative Attitude, Neutral Attitude, Sikken Attitude, Explicit Attitudes and Explicit attitude.

but these three are the most important ones:

1.2.2.1 Positive Attitude:

The maintenance of a positive attitude is very beneficial, when a person is being positive towards an object, a person or a group of people there is a high probability of receiving positive results or advantages. Alternatively, when a person expresses unfavourability it will only bring

negativity around, it should be noted, that all attitudes are influenced by both external and internal factors

According to Ajzen (2005), positive attitudes are shaped through the evaluation of individuals, places, objects, or events, influenced by our beliefs and values (p.13). For example, when examining a person, several factors come into play that may contribute to one's inclination towards a particular language. These factors encompass linguistic features, social dynamics, and political considerations.

Based on the example provided, individuals tend to develop a favorable attitude toward the English, for instance, when they feel comfortable with key linguistic aspects such as grammar and vocabulary. Additionally, languages spoken by prestigious or dominant groups are often more widely accepted, particularly in cases where there is no history of political conflict between the language community and the individuals forming their attitudes.

therefore, a person must always manage to be happy cheerful confident and determined all the time to hold a positive attitude that can facilitate daily encounters with the society

1.2.2.2 Negative Attitude:

A person who consistently holds a negative attitude tends to ignore the positive qualities of individuals and the favorable aspects associated with situations, objects, and groups. Instead, they primarily focus on the flaws and imperfections of people, which leads the person to overlook the positive attributes. It is crucial to actively avoid adopting a misguided approach characterized by negative attitudes. This inclination towards negativity can have profound negative consequences on an individual's mental well-being and overall life performance. Unfavorable perceptions of the surrounding environment are often shaped by social and cultural factors, as well as past life experiences, leading to the accumulation of negative ideas and emotions such as frustration,

doubt, fear, and hate. Minimizing and overcoming these negative tendencies is of utmost important promote personal growth and improve the overall quality of life.

1.2.2.3 Neutral Attitudes:

Neutrality is a cognitive and affective state in which individuals consciously choose not to express their biases or prejudices in their attitudes. It represents a deliberate effort to remain unbiased and detached from personal emotions and opinions. As Allport (1954) noted, "Neutral attitudes allow individuals to suspend their judgments and maintain a state of impartiality" (p. 76). People with neutral attitudes strive for a sense of objectivity and often perceive it as a virtue.

Living with a neutral attitude can have both positive and negative consequences. On one hand, individuals who adopt neutrality may experience a sense of self-satisfaction as they distance themselves from strong emotional reactions. This aligns with the words of Bruner (1957), who stated, "Neutrality offers individuals a sense of equilibrium and detachment from subjective biases" (p. 112). However, this detachment may also lead to a tendency to overlook personal issues and challenges. As Harlow (1962) pointed out, "Individuals with neutral attitudes may avoid confronting their life problems, relying on the belief that someone else will solve them" (p. 45). This inclination toward passivity can hinder personal growth and development.

It is essential to note that maintaining a neutral attitude does not imply indifference or apathy. It simply reflects an alternative perspective in evaluating people, objects, situations, and controversial topics. However, this neutrality can sometimes result in a lack of motivation and engagement, leading to what Higgins (1997) referred to as "a state of motivational hibernation" (p. 221). Over time, this can manifest as brain fog and emotional insensitivity, impacting an individual's overall well-being.

Neutrality as an attitude involves consciously choosing to suspend personal biases and judgments. It can bring a sense of objectivity and detachment, but it also carries the risk of overlooking

personal challenges and becoming disengaged. Understanding the complexities of neutrality allows for a comprehensive examination of its implications on individual functioning and psychological well-being.

1.2.3 Component of Attitudes:

Attitudes are a complex multi-dimensional construct that consists of three units: affective, cognitive, and behavioral. these components are referred to as the ABC model of attitudes,

- **A** ➡ **Affective**
- **B** ➡ **Behavior**
- **C** ➡ **Cognition.**

This model was first developed by the psychologists Martin Fishbein and Icek Ajzen between the late 1970s and early 1980 inspired by Gordon Allport's contribution to the study of attitude. (Fishbein & Ajzen, 1975).

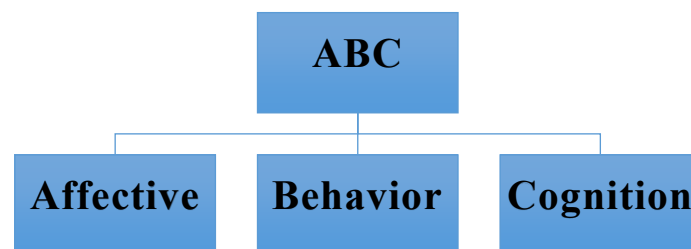


Diagram 01: ABC model of attitudes.

1.2.3.1 Affective Component:

Most researchers highlight the affective segment as the fundamental component and the most powerful determinant of attitudes. Fazio, R.H., & Zanna, M.P. (1981:185). according to Rosenberg & Hovland (1960), "Affective reactions such as likes and dislikes are the basic fundamental international attitude" (p.14) similar to Eagly and Chaiken (1998) who stated that "Affective responses are feelings of liking or disliking, enjoyment or aversion, and positive or

negative evaluation that are experienced about an attitude object" (p. 269). This component refers to the emotional aspect of attitudes, it involves feelings and emotions associated with an attitude object. In this case, an individual's emotion will be stimulated by a certain object person, or situation causing the person to react either in a negative manner or a positive one according to the stimuli's nature. The emotional response associated with attitudes is indeed influenced by an individual's preferences and likes or dislikes towards a particular attitude object. Positive emotional responses, such as happiness, joy, and excitement, tend to arise when individuals encounter an attitude object for which they hold a favorable disposition (Eagly & Chaiken, 1993). In this context, positive attitudes generate positive affective responses as they align with an individual's values, beliefs, or personal interests. Conversely, when an individual encounters an attitude object they dislike or have negative feelings towards, it is common for negative affective responses to arise. These responses may include emotions such as hate, disgust, or fear (Petty, Wegener, & Fabrigar, 1997). Negative attitudes elicit negative affective reactions because they conflict with an individual's preferences, beliefs, or values.

It is important to note that the relationship between attitudes and affective responses is complex and influenced by various factors, including cognitive processes, social context, and individual differences. Attitudes are not solely determined by affective responses, but they can shape and influence emotional experiences (Forgas, 2015).

In summary, individuals' affective responses to attitude objects are influenced by their preferences and liking or disliking towards those objects. Positive attitudes tend to evoke positive affective responses, while negative attitudes elicit negative affective responses.

According to Eagly and Chaiken (1998), emotions encompass a broad range of affective experiences, including feelings, moods, and sympathetic nervous system activity, which individuals associate with attitude objects. They assert that these emotional responses, when combined with cognitive factors, significantly influence the formation of attitudes and subsequent

behavioral responses. Eagly and Chaiken (1998) state, "Feelings, moods, emotions, and sympathetic nervous system activity that people have experienced about an attitude object and subsequently associate with it are central aspects of attitudes" (p. 272).

In this context, the interplay between emotions and cognition plays a crucial role in shaping attitudes and predicting behavior. Affective responses, such as fear, joy, or disgust, are not isolated phenomena but are intricately intertwined with cognitive processes. For instance, an individual's fear of heights can stem from a combination of general knowledge regarding the inherent danger of heights and past traumatic experiences associated with elevated locations.

These cognitive factors, in conjunction with the affective response, give rise to a negative attitude towards activities involving heights. As Eagly and Chaiken (1998) suggest, attitudes are not solely cognitive constructs but also incorporate the emotional dimensions that individuals associate with specific objects or situations.

Therefore, the interaction between emotions and cognition molds attitudes and shapes subsequent behavioral patterns. It is the fusion of affective responses, beliefs, and past experiences that determines the nature of the attitude and guides individuals' approach or avoidance behaviors towards the attitude object.

1.2.3.2 Behavioral Component:

Behaviors encompass an individual's predisposition to act in a specific manner, either verbally or overtly, towards a situation, object, or human being. Ajzen (1991) defines the behavioral component of attitudes as "the extent to which an individual possesses a positive or negative evaluation regarding the performance of a particular behavior" (p. 188) this indicates that individuals can exhibit either positive or negative responses to stimuli through their actions. For instance, a person may engage in avoidance behaviors towards cats due to a genuine aversion or express their dislike verbally by stating, "If I encounter a cat, I would scream." Additionally, it

is noteworthy that behavioral intentions can also be overt or nonverbal, where individuals may still hold negative attitudes towards cats but choose not to express them verbally (Ajzen, 1991).

According to Eagly and Chaiken (1993), attitudes encompass cognitive evaluations as well as affective and behavioral components. The behavioral component, in the context of attitudes towards cats, is evident in observable actions and verbal expressions that reflect individuals' feelings. Although numerous studies have focused on the nature of attitudes, there has been comparatively less emphasis on behavior about the extensive attention given to emotions and cognition. However, it is important to recognize that behavior holds significant influence and is often considered "the most observable component" of attitudes (Eagly & Chaiken, 1993). Researchers have acknowledged that behaviors serve as tangible manifestations of attitudes, readily discernible by others.

One intriguing aspect of behaviors is their susceptibility to change. Behaviors are malleable and can be easily influenced by external factors such as social norms, cultural practices, and past experiences. For instance, consider a student who initially holds a positive attitude toward participating in group discussions in the classroom. However, following an embarrassing incident during one of the sessions, the student's attitude undergoes a shift towards a negative stance. Consequently, the student begins to actively avoid participating, providing excuses or even expressing their intention verbally to the teacher, stating, "I no longer wish to be part of group discussions."

1.2.3.3 Cognitive Component:

The cognitive component of attitudes refers to the beliefs, thoughts, and traits associated with a particular object or topic. It involves the mental processes through which individuals form judgments, evaluations, and assessments. This component encompasses the information and knowledge individuals possess about the attitude object, as well as their cognitive interpretations and attributions. Eagly and Chaiken (1998) explain, "Cognitive responses include beliefs,

thoughts, and information that are relevant to the attitude object and that an individual has retrieved from memory" (p. 271).and before that Petty & Cacioppo (1981) stated that "Attitudes are mental representations that summarize an individual's evaluation of an object or issue."

The cognitive component of attitudes is influenced by deliberate analysis and evaluation of the positive and negative aspects of an attitude object. Ajzen (1991). For instance, when someone purchases a new car, they may consider factors such as safety records, gas mileage, resale value, and repair expenses. This conscious evaluation of different cars leads to the formation of attitudes based on cognitive processes.

One form of attitude influenced by cognition is stereotypes. Stereotypes are beliefs about the characteristics of a particular social group. Research by Esses, Haddock, and Zanna (1993) and Kawakami, Dion, and Dovidio (1998) have shown that holding negative stereotypes about a group is associated with having prejudiced attitudes toward that group. These beliefs, rooted in cognition, play a crucial role in shaping attitudes.

1.2.4 Theories of Attitude:

Theories serve a dual purpose of providing guidance for individuals in their behavioral actions in daily life and serving as valuable tools in research studies within the social and behavioral sciences. They play a crucial role in guiding individuals in the development of attitudes and facilitating attitudinal and behavioral changes. While numerous theories exist regarding attitude formation and attitudinal/behavioral changes, the following ones hold particular significance.

Wrightsman (1985) identified five different theories of attitude change: The Cognitive Consistency Theories, The balance theory, Congruity theory, social judgment and functional theory

1.2.4.1The Cognitive Consistency Theories:

Cognitive consistency theories (CCT) were developed by psychologist Leon Festinger in 1957 to explore how individuals strive to maintain consistency between their beliefs and behaviors. Festinger emphasized the importance of aligning cognition with the evaluation of an object to reduce inconsistencies when beliefs contradict attitudes. One key theory within CCT is cognitive dissonance theory, which explains how individuals experience discomfort when there is a conflict between their beliefs and actions. This discomfort motivates individuals to eliminate one of the beliefs to avoid inconsistency. Another theory, the Theory of Affective Cognitive Consistency by M.J. Rosenberg (1956), focuses on a person's general attitude and its connection to their values. It suggests that when attitudes change, the emotional and cognitive components of the attitude also change. Contradictions in attitude can be resolved by modifying one or both components, and persuasive communication can be used to influence the affective component by providing additional information to modify the cognitive component and overall attitude.

1.2.4.2 The Balance Theory:

In the realm of relationships, there are two general trends: mutual positive sentiments between individuals leading to a positive relationship, or positive sentiments between individuals while simultaneously harboring negativity towards an impersonal object. According to Heider (1946), relationships are either positive or consist of two negatives and one positive. In the former scenario, both individuals' express fondness for each other and establish a positive sentiment relationship. When they collectively have a positive sentiment towards an impersonal object, all aspects of the relationship manifest positively. However, in the latter case, while both individuals share positive sentiments and have a unified positive sentiment towards each other, their attitudes towards the impersonal object turn negative, indicating a coexistence of positive and negative elements within the broader relationship (Heider, 1946). This distinction highlights the interplay between personal and object-related attitudes in human relationships.

Regarding imbalanced triads, a situation arises when all relationships within a social context are negative, or when one person holds a positive attitude towards an impersonal object while the other person holds a negative attitude (Heider, 1958). To address this imbalance, individuals have two options: they can modify their negative attitudes towards the object and adopt a more accepting stance, or they can acknowledge and accept the other person's attitude to prevent the formation of negative sentiments and relational conflicts. These strategies emphasize the importance of attitude adjustments and interpersonal dynamics in maintaining balanced and harmonious social relationships.

1.2.4.3 Congruity Theory:

Osgood and Tannenbaum (1955) proposed the congruity theory of attitudes which is very similar to the balance theory. The theory of Congruity suggests that when there is a perceived mismatch or incongruity between the evaluation of a source and the concept associated with it, individuals are motivated to modify their evaluation to achieve consistency. This theory emphasizes the importance of aligning one's attitudes and beliefs to maintain cognitive harmony. When faced with an inconsistency, individuals may adjust their attitudes or beliefs in order to restore congruity within their cognitive system.

Osgood & Tannenbaum (1955) suggested that “people tend to evaluate things positively or negatively based on their congruence with the individuals’ values and beliefs” (p, 40) The state of congruity occurs when (a) a source and concept which are positively associated have the same evaluations and (b) a source and concept that are negatively associated have the opposite evaluations. Therefore, whenever incongruity occurs, it leads to a change of attitude, Heider (1958:98). This theory suggests how much change in attitude is desired to resolve the state of incongruity. For instance: in the case of euthanasia which is described as the practice of ending someone’s life to relieve their suffering, if both the doctor and the family hold a positive attitude

toward the practice or if both of them hold a negative attitude this represents the stable state of congruity but sometimes there is a state of incongruity when one of the family's sides disagree.

1.2.4.4 Social Judgment:

An occurrence referred to as an imbalanced triad arises when the entirety of relationships within a social framework exhibits negativism or when one individual has positive disposition toward an impersonal entity while the other person embraces a contrasting negative viewpoint. As delineated by renowned scholars Muzaffer Sheriff and Carolyn Sheriff (1969), this phenomenon transpires when "all relationships are negative or one holds a positive attitude toward the impersonal object while the other person holds a negative one" (p. 120).

To restore equilibrium within such imbalanced triads, individuals are confronted with two potential courses of action. Firstly, they can actively recalibrate their negative attitudes towards the pertinent object and adopt a more receptive stance. Alternatively, one may opt to acknowledge and accommodate the other person's attitude, diligently avoiding the emergence of adversarial units and sentimental relationships.

- **Latitude of Rejection:** high ego involvement means that the person holds his initial attitude.
- **Latitude of Non-commitment:** no accepts no rejection Latitude of acceptance: low ego involvement which means the person accepted the offer,
- **Latitude of Acceptance:** low ego involvement means that the person will change his anchor.

1.2.4.5 Functional Theory:

Every individual inherently possesses attitudes towards various objects or individuals, encompassing a spectrum of positive or negative orientations. According to the functional attitude

theory proposed by psychologist Daniel Katz (1960), these attitudes serve specific functions that influence their formation. These functions play a crucial role in shaping an individual's favorable or unfavorable disposition towards the respective attitude object. Attitudes are essentially expressed to fulfil diverse psychological needs or pursue specific life goals. The fundamental principle of the functional theory of attitude states that individuals possess attitudes that align with their specific needs. To modify their attitude, individuals must initially identify and understand their underlying needs.

The theory is that there are 4 types of psychological functions namely: the utilitarian function, the ego defensive function, the value expressive function, and the knowledge function.

The utilitarian function Smith et al., (1956) suggests that function works based on reward and punishment, it means that a person will develop a positive attitude if this attitude object provides an advantage or a reward but if an attitude object doesn't serve a function or it doesn't provide a reward but it instead provides a punishment the person tends to develop a negative attitude towards it.

The ego defensive function Katz (1960) happens when we develop an attitude to serve the function of protecting our self-image and ego. In most cases, the attitude tends to be negative for instance, when a teacher commits an error in the classroom and one of his students corrects his error as a way of protecting the self-image one may yell at the student and act like the right knowledge was provided by the teacher.

Both Katz (1960) and Smith et al. (1956) claimed that the value-expressive function of attitudes suggests that individuals develop positive or negative attitudes based on their alignment with personal values and beliefs For instance, if an individual strongly values the concept of animal welfare and opposes cruelty towards animals, they are likely to hold a negative attitude towards practices such as carnivorousism, which involves the consumption of meat derived from animals. The

value expressive function highlights the role of attitudes in expressing and reinforcing one's deeply held values and ethical principles within a given social context.

Knowledge function is significant to the formation of attitude, certain attitudes are advantageous because they collaborate with us to gain a better knowledge of the world. It also helps us to determine the causes of any occurrence. These attitudes aid in the development of attraction to people, things, or events that will be helpful in the future. It gives life purpose (knowledge). Katz (1960).

1.2.5 Models of Attitude:

Numerous researchers have put forth a range of attitude models, and the following are among the most significant and widely recognized ones:

1.2.5.1 Model of Expectancy-Value

Rosenberg (1956) proposes a different and distinct 'value significance' and 'perceived instrumentality' among the early expectancy-value models.

Attitude-related cognitive structures may have manipulable characteristics. There is widespread agreement that attitude may be defined as a full appraisal of an attitude object. This paradigm is made up of two parts: the likelihood 'expectancy' of each belief that makes up an attitude and the worth 'value or affects' connected with each belief (Calder & Ross 1972). According to Fishbein and Ajzen (1975), the Expectancy-Value Model of attitude suggests that a person has numerous beliefs about an attitude object; an item is perceived to have multiple properties. The Multi-attribute Measurement Model is one of the most well-known and widely used Expectancy-Value-based models of attitude.

1. 2.5.2 Vehicle Model:

Calder and Lutz (1972) proposed a comprehensive approach to understanding attitude structure, referred to as the Vector Model, which represents attitudes as a two-dimensional metric space. In their study, they argue that "one dimension corresponds to the emotional response (liking or favorableness) to the object, while the other dimension corresponds to the cognitive component of beliefs about the object" (p. 456). According to their framework, each dimension serves as a distinct set of coordinates within the cognitive space, allowing for the unique identification of every belief an individual holds regarding a particular product or object. This Vector Model provides a valuable framework for comprehending the multifaceted nature of attitudes, encompassing both emotional and cognitive aspects and their interplay in shaping individuals' evaluations and perceptions.

Here are a few examples to illustrate the application of the Vector Model in understanding attitude structure:

Emotional Dimension: Let's consider a study examining attitudes towards a particular brand of chocolate. Participants are asked to rate their emotional response or liking towards the chocolate brand on a scale ranging from "dislike" to "like." The emotional dimension in the Vector Model captures these affective evaluations, with individuals exhibiting varying levels of emotional favorability towards the brand.

Cognitive Dimension: In the same study, participants are also asked to provide their beliefs about the quality and taste of the chocolate. This cognitive dimension in the Vector Model represents the cognitive component of attitudes, reflecting the individual's assessment of the product's attributes based on their beliefs or knowledge. For example, participants may believe that the chocolate is rich in flavor, made with high-quality ingredients, and offers a satisfying taste experience.

By mapping the emotional and cognitive dimensions onto the Vector Model, researchers can analyze the unique combinations of emotional favorability and cognitive beliefs held by individuals towards the chocolate brand. This provides insights into the complexity of attitudes and how they are influenced by both emotional and cognitive factors.

1.2.5.3 Tripartite Model: Watson and Clark (1991)

The Tripartite Model, also referred to as an attitude model, categorizes attitudes into three distinct components: feelings, beliefs, and behavior. Let's explore each component and provide illustrative explanations:

The first component is an individual's emotion, which is represented by verbal expressions of feeling. In this context, the feelings component of attitudes refers to the emotional aspect of one's attitude. It encompasses the individual's emotional responses and subjective experiences associated with the attitude object. Verbal expressions of feeling, such as stating "I love this movie" or "I feel excited about this event," can convey the emotional component of attitudes.

The second is an individual's cognitive response, which is represented by verbal expressions of belief. The beliefs component of attitudes pertains to an individual's thoughts, opinions, and cognitive evaluations related to the attitude object. Verbal expressions of belief, such as stating "I think this product is reliable" or "I believe in the importance of environmental conservation," demonstrate the cognitive aspect of attitudes.

The third is an individual's overt action, which is represented by verbal expressions of intended behavior in response to environmental cues. The behavior component of attitudes focuses on the individual's observable actions and behavioral intentions towards the attitude object. Verbal expressions of intended behavior, such as stating "I plan to attend the event" or "I will recommend this restaurant to my friends," reflect the behavioral aspect of attitudes.

The Tripartite Model recognizes that attitudes encompass not only emotions and beliefs but also the potential for observable behaviors or behavioral intentions in response to the attitude object. By considering these three components, researchers and psychologists gain a comprehensive understanding of individuals' attitudes and their multidimensional nature.

1.2.5.4 Model for Technology Acceptance:

The Technology Acceptance Model (TAM), introduced by Davis (1989, 1993), is a widely used framework for understanding individuals' attitudes towards technology adoption. TAM posits that the intention to use a particular technology is influenced by the individual's attitude towards that technology and their assessment of its utility (Davis, 1989; Davis, Bagozzi, & Warshaw, 1992).

According to Davis (1989), "Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance" (p. 320). This component of TAM suggests that individuals' perceptions of how technology can improve their work effectiveness play a significant role in shaping their attitude toward that technology. For instance, if employees perceive that using a new software application will enhance their productivity and simplify their tasks, they are more likely to develop a positive attitude towards its adoption.

Furthermore, TAM emphasizes the importance of perceived ease of use, which refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 320). Individuals are more likely to embrace technology if they perceive it as user-friendly and requiring minimal effort to operate. For example, employees may be more inclined to adopt a new communication platform if they find it intuitive to navigate and learn, without the need for extensive training or technical expertise.

The interplay between perceived usefulness and perceived ease of use shapes individuals' attitudes toward the technology, which, in turn, influences their intention to use it. By considering

the utility and convenience factors, TAM provides insights into how individuals assess the value and feasibility of adopting a technology. This model has been widely applied in various contexts, such as e-commerce, healthcare, and educational settings, to understand and predict technology adoption behaviors (Djamasbi, Strong, & Dishaw, 2009; Venkatesh & Davis, 2000).

In summary, the TAM framework highlights the significance of individuals' attitudes toward technology and their assessment of its utility and ease of use in shaping their intention to use it. By understanding these factors, organizations and designers can tailor their technologies to meet users' needs and preferences, thereby increasing the likelihood of successful technology adoption and implementation.

1.2.6 Attitudes measurement theories:

The measurement of attitudes plays a crucial role in social psychology, allowing researchers to quantitatively assess individuals' evaluations, beliefs, and behavioral tendencies toward various objects, people, or concepts. Attitudes are complex psychological constructs that encompass affective, cognitive, and behavioral components, making their measurement challenging. Over the years, researchers have developed and refined various theories and measurement techniques to capture the multifaceted nature of attitudes accurately. This section explores the theories and models that underpin attitudes measurement, shedding light on the diverse approaches used to assess attitudes in empirical research. By understanding the underlying theories and measurement methods, researchers gain valuable insights into individuals' attitudes, their underlying dimensions, and the potential consequences they may affect behaviors and decision-making processes.

1.2.6.1 Thurstone Scale:

The Thurstone scale, developed by Thurstone in 1928, is a widely used tool for assessing attitudes. It involves a set of statements or items that respondents are required to indicate their agreement

or disagreement with. The scale operates on the principle of respondents only grading the components they agree with, thus allowing for a more nuanced measurement of attitudes.

Thurstone (1928) explains the scoring process of the Thurstone scale, stating, "The respondent's rating scale consists of a series of items with their numerical values. The respondent rates each item by checking the point on the scale corresponding to the statement with which he agrees" (p.536). In other words, respondents assign a rating based on the degree of agreement or alignment with each statement on the scale.

To determine the numerical values of the items on the scale, a panel of judges is often involved. These judges assign an eleven-point rating to each item, reflecting the attitude being evaluated. The individual evaluations provided by the judges are then averaged to obtain the final score for each item. Thurstone (1928) notes, "The ultimate selection of items is determined by two requirements: that the items cover the entire eleven-point range and that they have intercorrelations that are as small as possible" (p.540).

An example of the Thurstone scale in practice could be its application in measuring attitudes towards environmental conservation. The scale may include statements such as "I actively participate in recycling efforts" or "I support policies aimed at reducing carbon emissions." Respondents would rate their agreement or disagreement with each statement, and the numerical values assigned to the items would reflect the judges' evaluations of the statements' relevance and representativeness of the attitude being assessed.

The Thurstone scale, with its careful scoring process and consideration of item intercorrelations, provides a structured approach to quantifying attitudes. It offers researchers a means to gauge individuals' agreement or disagreement with specific statements, allowing for the assessment of the strength and direction of attitudes across various domains. By employing the Thurstone scale, researchers can obtain valuable insights into individuals' attitudes and beliefs, facilitating a deeper understanding of human behavior and decision-making processes.

1.2.6.2 Likert Scales:

According to Likert (1932), the Likert scale is a technique used to measure attitudes, wherein respondents rate their level of agreement or disagreement with each statement on a scale. Likert scales typically employ a range of response options, such as a five- or seven-point scale, allowing individuals to indicate their degree of agreement or disagreement. Likert (1932) explains the rationale behind the development of Likert scales, stating, "Thurstone scales, refined as Likert scales, were devised to avoid the unreliability of using intermediaries in the production of scales" (P10). The intention was to eliminate the need for intermediary judges in the scale production process, thereby increasing the reliability of the measurement.

Likert scales are designed in a way that does not include a neutral or midpoint option, pressuring respondents to express agreement or disagreement with each item. As Likert (1932) suggests, "Respondents were 'pressured' to agree or disagree with the scale item since Likert scales lack a neutral or medium point at the start" (p.35). This characteristic of the Likert scale encourages respondents to provide clearer and more decisive responses.

In analyzing the results of Likert scales, Likert (1932) proposes the use of deciles, switched sample into groups based on scale results. Likert states, "The sample may be split into deciles according to scale results" (p. 44). By comparing the mean scores of items for the higher quartile with those for the lower quartile, researchers can evaluate the discriminating power of each item.

It is worth noting that although Likert scales are often treated as unidimensional, they can potentially reveal clusters that reflect multiple dimensions. Likert (1932) acknowledges this possibility, stating, "Although Likert scales are not always unidimensional, the method assumes that there is only one dimension" (p.47). This allows for the examination of underlying relationships and the identification of potential dimensions within the scale.

Unlike Thurstone scales, which require logical assessments by judges regarding the relationship between items, Likert scales do not necessarily demand direct relevance between the items and the attitude being measured. Likert (1932) explains, "Unlike the Thurstone scale, Likert scales do not require judges to assess the logical relationship of one item to another" (p. 7). This flexibility allows for the inclusion of items that may indirectly contribute to the final scale score, providing insights into underlying relationships.

However, the inclusion of such items raises concerns regarding objectivity, as some commentators argue. The subjective nature of including items that may have underlying relationships poses challenges to the objectivity of the Likert scales.

In summary, the Likert scale, developed from the Thurstone scale, is a widely used technique for measuring attitudes. Likert scales provide a structured approach to capturing respondents' levels of agreement or disagreement with a set of statements. While Likert scales are often treated as unidimensional, they can potentially reveal multidimensional clusters. The flexibility of Likert scales allows for the inclusion of items with indirect relevance to the measured attitude, although concerns about objectivity may arise in such cases.

1.2.6.3 Scale of Guttman:

Guttman (1944) introduced the Guttman attitude scale, which involves constructing a series of hierarchical statements that pertain to the specific topic under-investigating about emphasizes the importance of demonstrating the strength of attitudes through these statements. He argues that the degree of disagreement with a statement reflects the respondent's position on the scale. Guttman posits that if a respondent disagrees with statement 5, after agreeing with statements 1-4, it follows that the respondent would also disagree with statements 6 and 7, as these statements represent more extreme expressions of the attitude being studied.

However, it is important to note that Guttman scales are not without limitations. The agreement on the rank order of the statements among the subject, researcher, and impartial judges may vary. As Harvey (2012) suggests, "Pilot research often provides the reliability coefficient for rank ordering" (p. 188). This highlights the need for preliminary investigations to assess the consistency of the rank ordering process.

Harvey (2012) further highlights the strength of the Guttman method in capturing multiple dimensions within a scale. The repeatability coefficient indicates the extent to which the content aligns with a specific dimension. In this regard, Harvey states, "The advantage of the Guttman approach lies in its capacity to recognize several scale dimensions. The repeatability coefficient reveals how closely the content relates to a given dimension" (p. 189). This aspect emphasizes the ability of the Guttman method to capture diverse aspects of an attitude.

Another advantage of the Guttman approach is its direct manipulation of actual data to identify an attitude, without relying on assumptions about the underlying nature of the data. As Harvey (2012) explains, "The Guttman approach manipulates actual data directly to identify an attitude rather than drawing judgments about the underlying nature of the data" (p. 192). This direct analysis of data enhances the empirical nature of the Guttman method and its ability to capture attitudes accurately.

Guttman's (1944) development of the Guttman attitude scale involves constructing hierarchical statements that reflect the strength of attitudes. Disagreement with a statement indicates the respondent's position on the scale. While Guttman scales have strengths in capturing multiple dimensions and directly analyzing data, potential limitations include variations in rank order agreement and the need for preliminary research to assess reliability.

Conclusion:

this chapter has explored the extensive research conducted on attitudes in social psychology. The definition of attitudes was discussed, highlighting their various components and types. The affective, cognitive, and behavioral aspects of attitudes were recognized as influential factors in individuals' evaluations and responses towards objects, people, or concepts. Prominent theories and models of attitudes were examined. These theories shed light on the discomfort experienced when attitudes, beliefs, and behaviors are inconsistent, as well as the importance of aligning affective and cognitive components within an individual's attitude system. Measurement of attitudes was emphasized as a crucial aspect of empirical research. Various scales were highlighted as tools for quantifying and exploring attitudes systematically. The chapter underscored the significance of understanding attitudes in relation to persuasion, social influence, intergroup dynamics, and consumer behavior. It also acknowledged that the field of attitudes is constantly evolving, with ongoing research investigating new dimensions, refining existing theories, and developing innovative measurement approaches.

in conclusion, this chapter has presented a thorough examination of attitudes, encompassing their definitions, components, theories, models, and measurement approaches. It has emphasized the ongoing research endeavors that seek to enhance our comprehension of attitudes and their influential impact on human cognition, affect, and behavior within various social environments.

Chapter two

Methodology

Section One: Research Methodology

Introduction:

The objective of this study is to investigate the perspectives of teachers and students regarding English as a medium of instruction in higher education. In the preceding chapter, an extensive review of the pertinent literature was presented to establish a theoretical framework. Now, it is crucial to introduce the practical component of the research to connect theory with real-world application. This chapter is divided into two sections:

Section one outlines the research design and methodology, including details about the data collection method, the target population, sample selection, and the instruments employed in this study. These aspects are crucial for understanding the approach taken to gather relevant data.

Section two focuses on the data analysis, results, and interpretation. The findings of the study are presented and discussed, along with an examination of any limitations that may have influenced the results. Additionally, suggestions for pedagogical implications based on the findings are discussed. This structured approach allows for a comprehensive exploration of the research topic, ensuring that both the methodology and the results are effectively communicated.

2.1.1 Research design:

The primary aim of this study is to address the research questions and hypotheses effectively. To achieve this objective, it is essential to establish a robust research design. As stated by Creswell (2014), a research design serves as a strategic framework that guides the collection and evaluation of data to address research questions and test hypotheses. In light of this, the current study adopts a descriptive research method, which combines qualitative and quantitative analyses. By adopting this approach, the aim is to achieve reliable and robust results that contribute to a thorough comprehension of the research topic. By employing a well-structured research design, the study endeavors to provide valuable insights and contribute to the existing body of knowledge.

2.1.2 Setting and Participants:

The main aim of this study is to investigate the perceptions and attitudes of 21 teachers from the Faculty of ITCS at the University of Mohammed Boudiaf, Msila, in relation to the English as a Medium of Instruction (EMI) approach. Additionally, an online questionnaire was administered to 75 students enrolled at the same university, aiming to gather their perspectives, beliefs, and attitudes towards the utilization of English as a medium of instruction. Furthermore, an interview was conducted with Chatra Mohammed, who holds the position of headmaster at the Faculty of ITCS insights and perspectives from a prominent decision-maker within the department.

2.1.3 Research instruments:

Any research, no matter for which purpose is conducted, entails the use of research instruments. These instruments play a crucial role in providing the necessary resources to address research questions and test hypotheses effectively. Researchers need to exercise caution when selecting the appropriate research instrument for their study. In the present study, both questionnaires and an interview have been chosen as the research instrument. Questionnaires offer a structured approach to gathering data from participants, allowing for a systematic and standardized collection of information. By employing these instruments, the study aims to gather relevant data consistently and efficiently, enabling the researcher to gain insights into the research questions and test the formulated hypotheses.

2.1.4 Teachers' Questionnaires:

The Teachers' Questionnaire is employed as a vital data-gathering tool in this research. It is specifically distributed to the computer sciences teachers affiliated with the Department of Mathematics and computer science at the University of M'sila. This questionnaire enables the researchers to collect valuable insights and opinions from the targeted group of teachers.

Regarding the methodological approach, the current study adopts a descriptive research design, which is underpinned by a quantitative research approach. The primary objective is to thoroughly

examine the accumulated data and conduct a statistical analysis of the attitudes of instructors towards e-learning. This quantitative approach allows for a systematic evaluation of the gathered information, enabling the researchers to draw meaningful conclusions and identify any notable trends or patterns in the data. By employing this methodological approach, the study seeks to provide a comprehensive understanding of the teachers' perspectives on implementing EMI in the faculty of ITCS.

2.1.4.1 Description of teachers' questionnaires:

The questionnaire used in this study was administered to the participating teachers and consisted of a comprehensive set of 19 questions. This set included 14 closed-ended questions, which required respondents to select from predetermined response options, and 5 open-ended questions, allowing for more detailed and unrestricted responses. The questionnaire itself was organized into two distinct sections:

Section one of the questionnaire, comprising questions 1 and 5 (Q1-Q5), is designed to gather general information about the teachers of computer science. The purpose of this section is to gather contextual information that may be pertinent in comprehending the perspectives and attitudes of the teachers.

Section two of the questionnaire, consisting of questions 6 to 14 (Q6-Q14), focuses on exploring the teachers' attitudes towards English as a medium of instruction and its effects on the teaching-learning process in a more general sense. These questions aim to capture the teachers' overall viewpoints and opinions on relevant topics.

Section three of the questionnaire, comprising questions 15 to 19 (Q15-Q19), it aims to explore and identify the potential difficulties that teachers may face when implementing English as a medium of instruction in higher education in Algeria. Additionally, the questionnaire seeks to gather valuable suggestions and recommendations from teachers to facilitate the process of

implementing EMI effectively. By addressing these specific aspects, the study aims to gain a comprehensive understanding of the challenges faced by teachers to identify potential solutions and strategies for enhancing the anglicization of instruction in the higher education context in Algeria.

2.1.4.2 Administration of Teachers' Questionnaires:

The administration of the teachers' questionnaire took place from May 14th to 15th, 2023, at the faculty of computer science, University of MOHAMMED BOUDIAF of M'SILA. The teachers demonstrated collaboration and willingly participated in the questionnaire, providing valuable and insightful information for this research.

2.1.5 Students' questionnaire :

2.1.5.1 Description of Students' Questionnaire :

To achieve the objectives of this research, comprehensive students' questionnaires was developed, comprising twenty-six questions, which are divided into three main sections., along with an additional section for further suggestions. The questionnaire was designed to gather both quantitative and qualitative data, incorporating a range of question types such as closed-ended, open-ended, and Likert scale questions.

The questionnaire is structured into four sections. The first section focuses on gathering general information about students, including their bio-data and proficiency level in English (Q1, Q2, and Q3). The second section, titled "Students' Attitudes," comprises nine questions (from Q4 to Q12) aimed at assessing the student's understanding of the concept of attitudes.

The third section, " Students' Attitudes towards EMI," encompasses thirteen questions (from Q14 to Q24). This section aims to explore the students' attitudes towards e-learning and their perspectives on content-based and language-based courses. The questions in this section seek to

gain insights into the students' preferences and perceptions regarding the use of English as a medium of instruction.

Additionally, a separate section is included at the end of the questionnaire to allow students to provide suggestions and recommendations based on their experiences and observations.

By structuring the questionnaire in this manner, the research aims to collect comprehensive data that combines quantitative and qualitative insights into the student's knowledge, attitudes, and perspectives related to English as a medium of instruction in the context of e-learning.

2.1.5.2 Administration of Students Questionnaire

The questionnaire was specifically designed to explore the attitudes of second-year students in the faculty of computer science at the University of Mohammed Boudiaf in Msila towards the use of English as a medium of instruction. The questionnaire was administered to a sample consisting of 75 out of 284 students at the end of the second semester of the academic year 2022/2023.

To ensure clarity and understanding for students with lower levels of proficiency in the English language, the questions were translated into Arabic to eliminate any potential ambiguity and facilitate the student's comprehension of the questionnaire. Additionally, students were given the freedom to choose whether they preferred to answer the questionnaire in Arabic or English, based on their language preference and comfort.

To accommodate the students' preferences and adapt to their technological habits, the questionnaire was distributed online through emails, and study groups on Telegram and Facebook. This approach acknowledged the students' frequent use of technology and reduced the reliance on traditional paper-based methods. The topic of the questionnaire generated significant interest among the majority of students, resulting in valuable and helpful answers that contributed to the research study.

2.1.6 the headmaster interview:

This interview was arranged with the headmaster of the faculty of ITCS.

2.1.6.1 Administration and Description of the Interview:

On May 21st of the academic year 2022/2023, an unstructured interview was conducted with Mr Chatra Mohammed, the Head of the Faculty of Information Technology and Computer Science. The purpose of this interview was to investigate the attitudes of teachers and students towards English as a Medium of Instruction (EMI) within their department. The interview consisted of nine open-ended questions ,The interview aimed to gather valuable information about the current perceptions and challenges associated with implementing EMI in the faculty, providing valuable insights into the readiness and adaptability of both teachers and students to this educational shift.

Section two: Data Analysis, findings, discussion, limitations and recommendations

2.2.1 Data analysis:

In this study, we have chosen to utilize quantitative and qualitative methods to analyze the data obtained from the questionnaires and the interview. By employing these methods, we aimed to provide an Unfavorable understanding of the collected information. To enhance the readability of the results, we have highlighted them using percentages. Additionally, graphical representations have been employed to visually depict the data, Additionally, tables were employed to present the questionnaire data in importance, allowing for an easy comparison of the related percentages and making it easier for readers to comprehend and interpret the information.

2.2.2 Analysis and Discussion of Teacher's Questionnaire

Section one : General information.

Q 1 : Gender

Gender	Subject	Percentage %
Female	3	14.3
Male	18	85.7
Total	21	100

Table 01 : Teachers' gender.

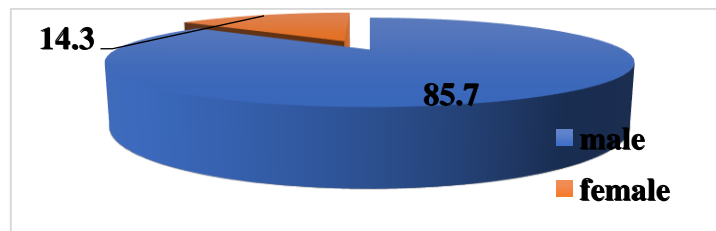


Figure 01: Teachers' gender.

the figure above demonstrates an imbalance in the number of female and male respondents. with 18 males (85.70%) and 3 females (14.30%). Consequently, the male respondents constitute a significant majority within the examined population. This finding suggests that men exhibit a greater inclination toward science and technology compared to women.

Q 2: Age of teachers.

Age	Subject	Percentage %
Under 25	00	00
25 -29	00	00
30 -39	5	23.80
40- 49	10	47.61
50 -59	6	28.57
60	00	00

Table 02 : Age of teachers.

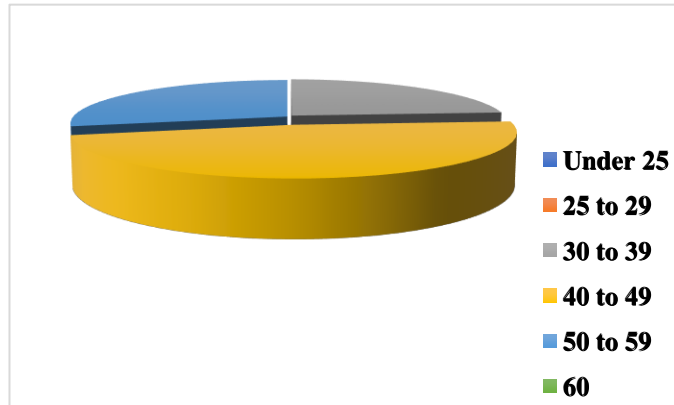


Figure 02: Age of teachers.

The age distribution of respondents in the questionnaire varied across three main age groups. The majority of respondents fell within the age range of 40-49, comprising 47.61% of the total sample. The 50-59 age group accounted for 28.57% of the respondents, while the 30-39 age group represented 23.80% of the sample. The absence of other age groups in this sample limits the generalizability of the findings. However, these results suggest a dominance of older age groups, indicating a substantial level of teaching experience among the respondents.

Q 3: Teachers' scientific degree.

Degree	Number	Percentage %
Bachelor	00	00
magister	6	28.6
Masters	00	00
PhD	15	71.4

Table 03: Teachers' scientific degree.

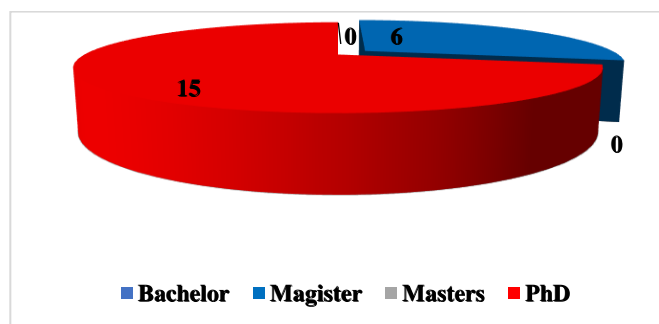


Figure 03: Teachers' scientific degree.

The vast majority of teachers who received the questionnaire hold a Ph.D. degree (71.4%), while a smaller proportion of respondents have a magister’s degree (28.6%). This indicates that the respondents are highly qualified and skilled educators. Their extensive educational backgrounds suggest that their answers and suggestions can be considered reliable and valuable in providing insights and recommendations.

Q 4: Years of experience.

Years	Subjects	Percentage %
1	1	4.8
1-3	00	00
3-5	1	4.8
6-10	7	33.3
11-15	6	28.6
16- 28	3	14.3
More	3	14.3
Total	21	100

Table 04: Years of experience.

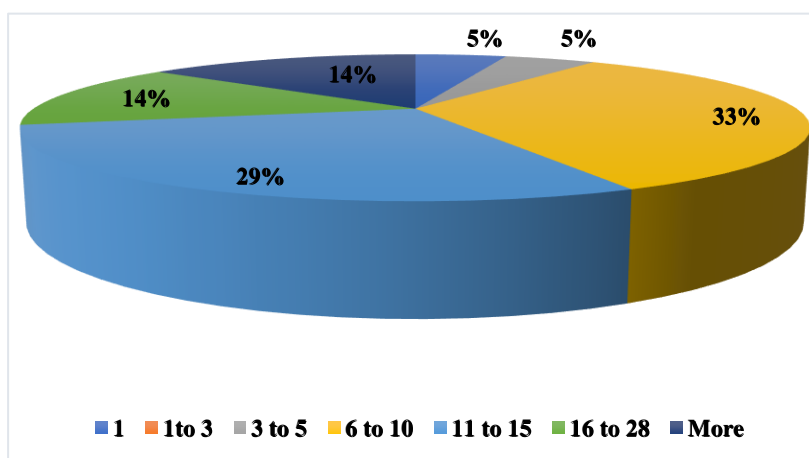


Figure 04: Years of experience.

The questionnaire data reveals diverse teaching experiences among the participating teachers. Approximately 4.8% of teachers worked for one year, while another 4.8% worked for 3-5 years. A significant proportion (33.3%) reported teaching for 6-10 years, indicating a moderate level of experience. Furthermore, 28.6% had 11-15 years of teaching experience, and only 14.3% had 16-28 years of experience. These findings highlight the varied levels of expertise and knowledge among the teachers, favorable disposition of perspectives in the questionnaire responses.

Q 5: English proficiency .

Level	Subject	Percentage
Advanced	3	14.3
Upper- intermediate	11	52.4
Intermediate	5	23.8
Beginner	2	9.5
Total	21	100

Table 5: Teachers’ proficiency.

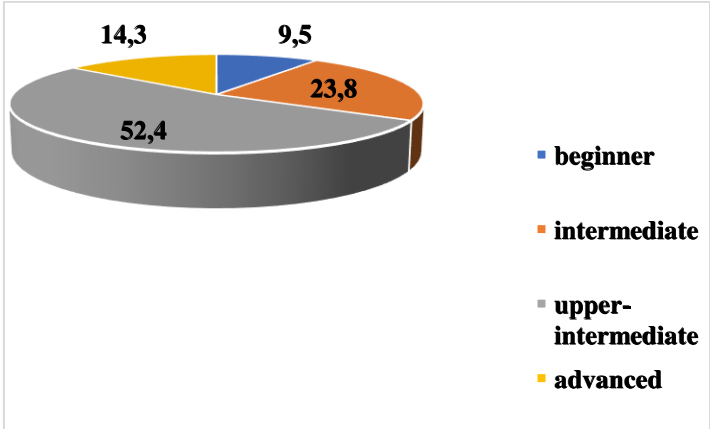


Figure 5: Teachers’ proficiency.

The questionnaire responses obtained from the teachers provide insights into their self-reported levels of proficiency in English. Among the participants, 3 teachers (14.3%) indicated that they possess an advanced level of English. A larger group of 11 teachers (52.4%) reported their proficiency level as upper intermediate. Additionally, 5 teachers (23.8%) stated that their level is intermediate. Interestingly, only 2 teachers (9.5%) acknowledged having a basic level of English

proficiency. These findings reflect a range of English competencies among the participating teachers, with a significant proportion falling within the upper intermediate category. It is worth noting that the distribution of proficiency levels highlights the diversity of language skills among the teachers, which may have implications for instructional strategies and communication within the educational setting.

Q 6: The benefit of using English in the field of computer science.

Option	Subjects	Percentage %
Yes	21	100
No	00	00
Total	21	100

Table 06: The benefit of English in the field of computer science.

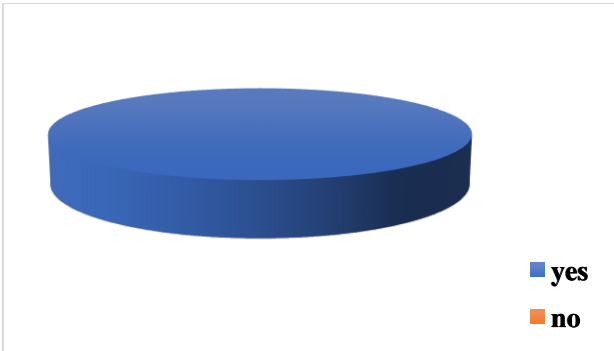


Figure 06: The benefit of English in the field of computer science.

The questionnaire administered to the teachers included a question regarding the perceived benefits of English in the field of computer science. Remarkably, the entire sample of participating teachers, constituting 100% of the respondents, unanimously answered in the affirmative, indicating that English is indeed considered beneficial for the field of computer science. This overwhelming consensus highlights the recognition and acknowledgment among the teachers of the significant role that English plays in the context of computer science education.

Q 7: Teaching English for specific purposes.

Option	Subject	Percentage %
Yes	16	76.2
No	5	23.8
Total	21	100

Table 07: Teaching ESP.

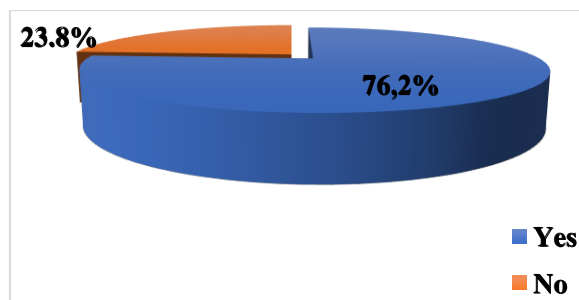


Figure 07: Teaching ESP.

the data reveals that a significant majority of teachers (76.2%) confirmed their engagement in teaching English for specific purposes related to computer science, reflecting their recognition of the importance of tailored language instruction for students pursuing careers in this field. However, a notable proportion of teachers (23.8%) still approach English I instruction in a more general manner. These findings highlight the diverse perspectives and practices within English language teaching, underscoring the importance of considering both targeted and broader approaches to cater to the varied needs and goals of students in the field of computer science.

Q 8: Favorable language for teaching

Language	Subject	Percentage %
Arabic	14	66.7
English	15	71.4
French	11	52.4
Others	1	4.8
Total	21	100

Table 08: The favorable language of teaching.

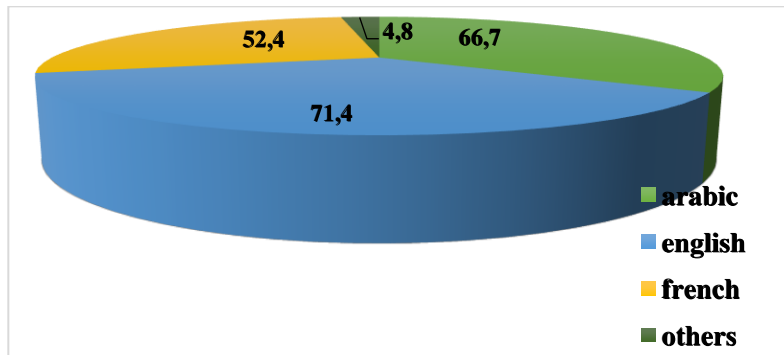


Figure 08: The favorable language of teaching.

The questionnaire administered to teachers inquired about their language preferences for instructional purposes. The study findings indicate that the respondents exhibited clear preferences. Specifically, when it comes to behavioral aspects, 14 teachers (66.7%) favored the utilization of Arabic. Conversely, 15 teachers (71.4%) expressed a preference for English. Additionally, 11 teachers (52.4%) stated a preference for French, and only one teacher (4.8%) mentioned a preference for the Tamazight language. These findings highlight the varied language preferences among teachers, with Arabic and English emerging as the most favored choices. The presence of French as a preferred language indicates its significance in the instructional context. The inclusion of Tamazight as a preference emphasizes the recognition of local languages.

Q 9: Teachers' beliefs regarding the role of English in enhancing instruction for students.

Opinion	Subject	Percentage %
Yes	18	85.7
No	3	14.3
Total	21	100

Table 09: Role of English in enhancing instruction for Students.

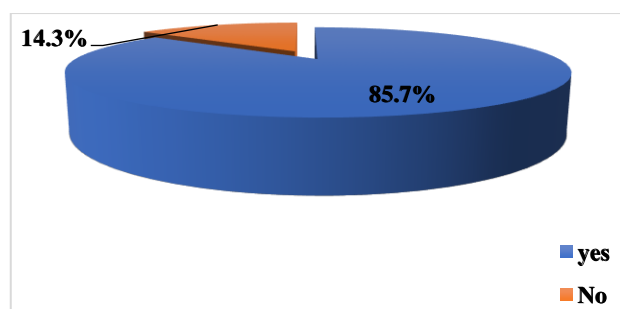


Figure 09: Role of English in enhancing instruction for Students.

Among the respondents, 13 teachers (85.7%) believe that English plays an important role in enhancing instruction for students. They recognized the value of English as a language of instruction and its potential to support students' learning. However, 3 teachers (14.3%) held the opposing view, stating that they do not believe English plays a significant role in enhancing instruction. These divergent perspectives reflect the complexity and differing opinions among teachers regarding the importance of English in enhancing students' understanding of the computer science field.

Q 10: The importance of having an advanced level of language in English courses for students.

Opinion	Subject	Percentage %
Yes	16	76.2
no	5	23.8
Total	21	100

Table 10: The importance of having an advanced level of language in English courses for students.

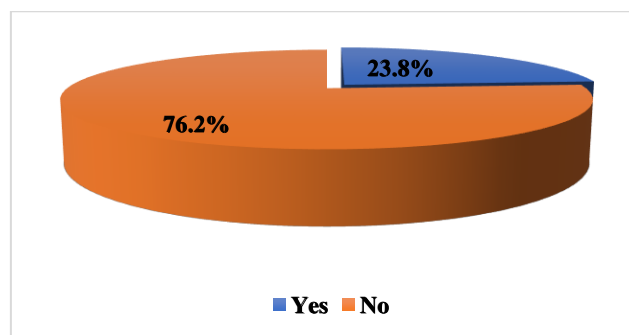


Figure 10: The importance of having an advanced level of language in English courses for students.

When asked about their beliefs regarding the necessity of higher English proficiency for students to understand courses taught in English, teachers' responses varied. Out of the respondents, 16 teachers (76.2%) expressed the belief that students must have a higher level of English proficiency to ensure understanding of such courses. They emphasized the importance of language skills in comprehending complex subject matter delivered in English. However, 5 teachers (23.8%) held the opposite view, stating that they do not believe higher English proficiency is

necessary for students to understand these courses. These contrasting perspectives highlight the differing opinions among teachers on the role of English proficiency in facilitating students' comprehension of content taught in English.

Q 11: Students’ performance level in courses taught in English in comparison to courses taught in French.

Opinions	Subject	Percentage %
Yes	9	49.9
No	12	50.1
Total	21	100

Table 11: Students’ performance level in courses taught in English in comparison to courses taught in French.

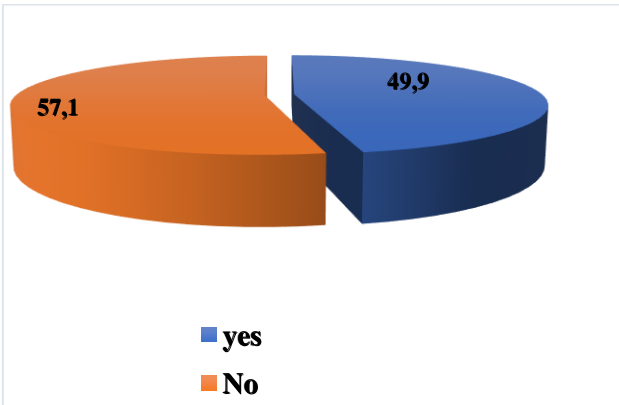


Figure 11: Students’ performance level in courses taught in English in comparison to courses taught in French.

Teachers were asked to provide their observations on the potential differences in student performance between courses taught in French and those taught in English. The findings revealed a range of perspectives among the respondents. A notable portion of the teachers, comprising 49.9% (9 teachers), reported no noticeable distinction in student performance across the two languages. According to their accounts, students demonstrated comparable levels of achievement and engagement irrespective of the language of instruction. Conversely, 50.1% (12 teachers) acknowledged the presence of discernible differences in student performance. These teachers recognized variations in proficiency and student outcomes, with certain students thriving in French-taught courses while others excelled in English-taught courses. The divergent viewpoints expressed by

the teachers highlight the multifaceted nature of language's influence on student performance within different educational contexts.

Q 12: Teachers’ attitudes toward the ministry’s calls to use English as a medium of instruction in higher education

Opinion	Subject	Percentage %
Positive	20	95.2
Negative	00	00
Neutral	1	4.8
Total	21	100

Table 12: Teachers’ attitudes toward the ministry’s calls to use English as a medium of instruction in higher education.

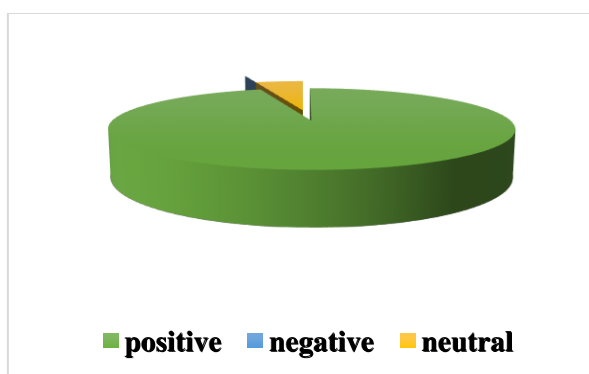


Figure 12: Teachers’ attitudes toward the ministry’s calls to use English as a medium of instruction in higher education.

Teachers were surveyed regarding their attitudes towards the use of English as a medium of instruction in higher education, to determine whether their stance was positive, negative, or neutral. The results revealed a significant predominance of positive attitudes among the respondents, as indicated by 95.5% (20 teachers) expressing a positive outlook towards the use of English in higher education. Remarkably, no teachers reported a negative attitude in this regard. Only a single individual, representing 4.8% of the participants, expressed a neutral attitude towards the use of EMI in higher education.

Q 13: a) difficulties faced by teachers while using English.

Opinions	Subject	Percentage %
Yes	18	85.7
No	3	14.3
Total	21	100

Table 13: The obstacles encountered by teachers in utilizing English as the medium of instruction

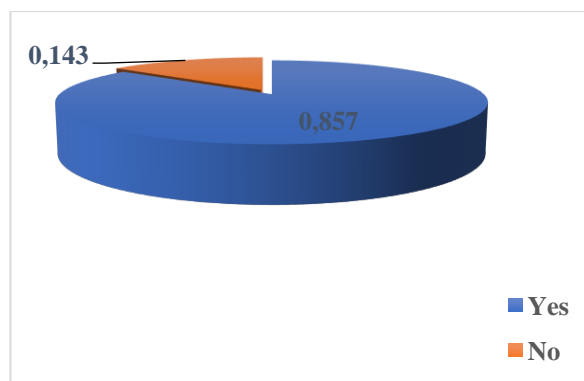


Figure 13: The obstacles encountered by teachers in utilizing English as the medium of instruction.

The question aimed to investigate the obstacles encountered by teachers in utilizing English as the medium of instruction. The results revealed that a substantial majority of teachers, accounting for 85.7% (18 respondents), acknowledged facing difficulties when using English. In contrast, a minority of teachers, constituting 14.3% (3 respondents), reported no encountered obstacles. These findings underscore the prevalent challenges experienced by teachers in employing English as a pedagogical language, thereby emphasizing the significance of providing additional support and resources to address these linguistic difficulties effectively.

b) The specific areas in which teachers encounter challenges when utilizing English.

Option	Limited vocabulary	Lack of fluency	The four skills	All of the above	None of the above	Others
Subject	00	12	00	2	7	00
Percentage %	00	57.1	00	9.6	33.3	00

Table 14: The specific areas in which teachers encounter challenges when utilizing English.

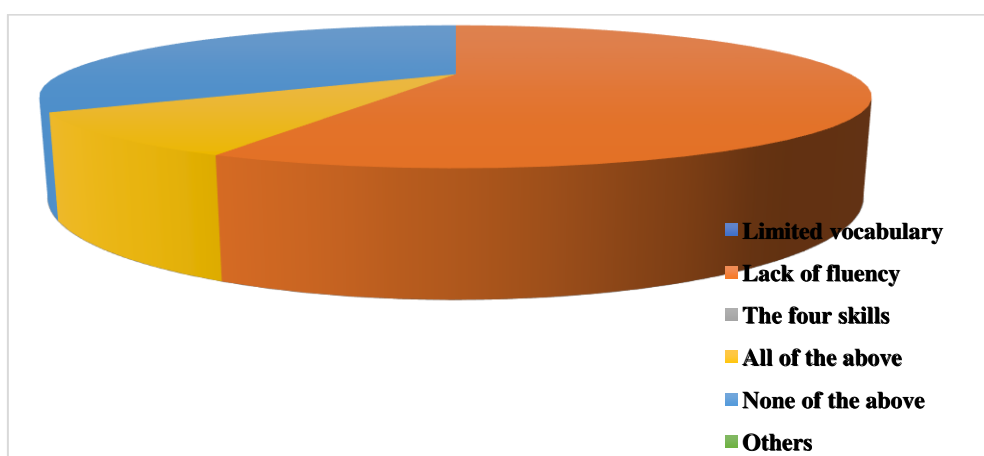


Figure 14: The specific areas in which teachers encounter challenges when utilizing English.

This question aimed to investigate the specific areas in which teachers encounter challenges when utilizing English. Findings revealed that a substantial proportion of teachers (57.1%, n = 12) identified a lack of fluency as the predominant difficulty they face. Conversely, a considerable subset of teachers (33.3%, n = 7) reported no discernible difficulties across the designated areas. In contrast, a minor segment of teachers (9.6%, n = 2) acknowledged encountering challenges while employing English, without providing explicit details regarding the specific linguistic domain. It is noteworthy that none of the participants indicated encountering difficulties related to vocabulary or the four language skills. These outcomes provide valuable insights into the areas of language proficiency that educators may benefit from addressing in order to their instructional efficacy in English context.

Q 15: Teachers’ perception towards employing English as the medium of instruction in in other fields.

Opinion	Subject	Percentage%
Yes	20	95.2
No	1	4.8
Total	21	100

Table 15: Teachers’ perception towards employing English as the medium of instruction in other fields.

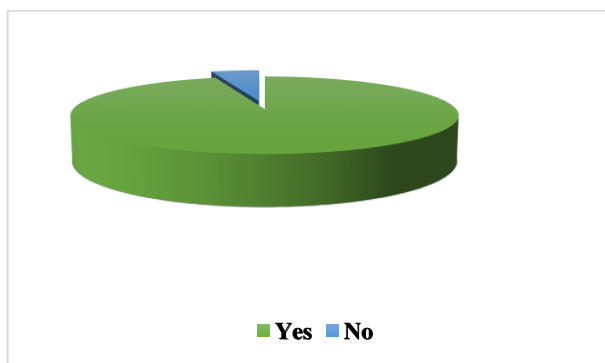


Figure 15: Teachers’ perception towards employing English as the medium of instruction in other fields.

teachers were surveyed regarding their viewpoints on the appropriateness of employing English as the medium of instruction in disciplines beyond technology and computer science within the context of higher education. The results indicated an overwhelming consensus among the respondents, with a substantial majority of teachers (95.2%, n = 20) expressing a positive stance toward the utilization of English across diverse academic domains. In contrast, a single teacher (4.8%) held a dissenting perspective, suggesting reservations about extending the use of English beyond the fields of technology and computer science.

Q 16: Why do you think it is important for Algerian universities to develop English language proficiency among their students and faculty?

This question sought to explore their perspectives on the significance of enhancing English proficiency among students and teachers in Algerian universities specifically in the field of

information technology and computer science. The responses yielded insightful reasons that underscored the importance of prioritizing the development of English language skills. Firstly, a prevailing theme among the teachers' answers was the recognition of English as a globally dominant language. They acknowledged that English serves as a lingua franca, facilitating effective communication in diverse academic and professional contexts worldwide. This acknowledgement reflects the understanding that proficiency in English is pivotal for fostering international collaboration and knowledge exchange. Moreover, the participants emphasized the necessity of keeping abreast of scientific research and academic literature, which are predominantly produced and disseminated in English. Proficiency in English enables access to a vast range of scholarly resources and enables researchers to engage with the latest advancements in their fields. By emphasizing the significance of English as the language of reference and instruction across various disciplines, the teachers highlighted the critical role it plays in enabling students and educators to navigate academic materials effectively. Furthermore, the teachers emphasized the practical implications of enhanced English proficiency. They emphasized that an elevated level of English language skills facilitates collaboration with foreign researchers, enables productive cooperation in seminars and conferences, and eases communication and cooperation with international counterparts. By enabling effective cross-cultural communication, English proficiency is seen as a gateway to establishing meaningful global partnerships and expanding the scope of academic engagement.

Q 17: In your opinion, what are the potential effects on teaching and learning in higher education when English is used as the language of instruction instead of French?

The teachers were asked to share their perspectives on the potential impact of using English as a medium of instruction instead of French on the teaching and learning process. Their responses presented a range of viewpoints, revealing both positive and negative expectations. Those who expressed positive views highlighted several benefits of adopting English as a medium of instruction. They emphasized that it would facilitate communication in seminars and research activities, enabling better collaboration and knowledge exchange among students and faculty. Moreover, they believed that English-based references and courses would enhance the quality of teaching and learning, as they offer access to a wider range of resources and contemporary academic content. On the other hand, some teachers expressed concerns about the potential negative effects of the shift to English as the medium of instruction. They anticipated resistance from teachers who are solely comfortable teaching in French, which could impede the learning and teaching process. Additionally, they feared that students might struggle to understand their

courses if they are delivered in English. However, another group of teachers held a contrasting perspective, asserting that the language of instruction is secondary to the content being taught. According to them, as long as the subject matter, such as computer science, is effectively delivered, the language used becomes less significant. These varied responses highlight the complexity and divergent opinions regarding the impact of English as a medium of instruction. While some teachers anticipate positive outcomes, such as improved communication and access to resources, others express concerns about potential challenges and resistance. Ultimately, these perspectives emphasize the need for careful consideration and effective implementation strategies when introducing changes to the language of instruction.

Q 18: In your opinion, what are the difficulties that the Algerian government may face when putting this decision into practice?

Teachers were asked to identify potential difficulties that the Ministry of Higher Education might encounter following the declaration of English as the medium of instruction in Algerian universities, replacing French. The responses provided by the teachers shed light on several concerns. Firstly, they highlighted the lack of seriousness and commitment among those in positions of authority, as well as among teachers and students, which could impede the smooth implementation of such a decision. Additionally, the teachers expressed apprehension about the possibility of unexamined and poorly planned decisions being made, which could lead to challenges and disruptions in the teaching and learning process. Another significant concern raised by the teachers was the shortage of qualified English teachers. They pointed out that the current pool of teachers might not possess the necessary proficiency or pedagogical skills to effectively deliver courses in English. Furthermore, the senior generation of teachers, who have primarily been accustomed to teaching in French, might resist this decision, citing a preference for their established language of instruction. Lastly, the teachers emphasized the low level of English proficiency among both teachers and students. They highlighted that inadequate language skills could hinder comprehension, communication, and overall academic performance.

Q 19: What kind of support do you think teachers need to effectively teach in English?

Teachers were queried about the types of support that the government could provide to enable them to effectively teach in English. The responses revealed several key suggestions. Firstly, teachers expressed the need for additional language centers within universities, along with qualified and experienced language instructors who can assist them in improving their English proficiency. Access to language resources, including books and references exclusively in English,

was also emphasized as essential for both teachers and students. Furthermore, teachers highlighted the importance of designing an online learning platform exclusively for university teachers. This digital platform would facilitate access to educational materials, teaching resources, and professional development opportunities tailored to English language instruction. Professional formation and training programs for teachers were also identified as crucial for enhancing their pedagogical skills and confidence in delivering instruction in English. These programs could encompass language proficiency enhancement, teaching methodologies specific to English language instruction, and classroom management strategies. Teachers also suggested that providing financial incentives, such as allowances or bonuses, to teachers with a higher level of English proficiency would serve as an encouragement for them to invest more effort in enhancing their language skills and teaching effectiveness.

Q 20: Any Suggestions to avoid difficulties

In the section focusing on teachers' suggestions regarding English as a medium of instruction in higher education, several responses were gathered. The suggestions encompassed various aspects related to language policy and implementation. One recommendation put forth was the complete elimination of French as a medium of instruction, starting from elementary school, with a strong emphasis on teaching solely in English. This proposal aimed to ensure a seamless transition and long-term proficiency in English among students. Financial incentives in the form of bonus payments for teachers were also suggested as a means to motivate and reward educators for their efforts in adapting to the new language policy. Such bonuses could serve as a recognition of their commitment to enhancing their English language skills and delivering quality instruction.

Teachers expressed the importance of carefully managing the transition process. While some recommended expediting the decision, others suggested a gradual shift from French to English. The gradual approach would allow for proper planning, curriculum development, and the necessary infrastructure adjustments, ensuring a smooth transition without disrupting the teaching-learning process. The selection of young and proficient English-speaking teachers was proposed to ensure a skilled workforce capable of effectively implementing English-medium instruction. Younger teachers, often with more exposure to the language and recent pedagogical approaches, were seen as better equipped to adapt to the new language policy.

Additionally, creating awareness among students about the decision to adopt English as a medium of instruction was seen as crucial. This suggestion emphasized the need for clear communication

and engagement with students, ensuring their understanding and support for the language transition.

2.2.3 Analysis and discussion of Students' Questionnaire:

This section presents a comprehensive and detailed analysis of the results obtained from the questionnaire. The data collected from the questionnaire responses are thoroughly examined and interpreted to extract meaningful insights and draw relevant conclusions.

Section One: General Information

Q 1: Gender

Option	Percentage %
Female	62,7
Male	37,3

Table 16: Gender of students.

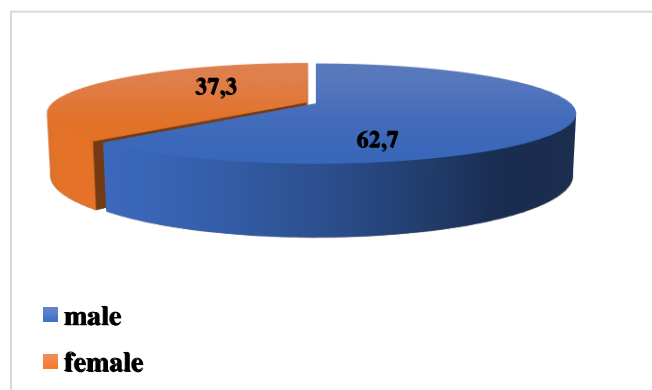


Figure 16: Gender of students.

According to the responses, 62.7% of the students identify as female, while 37.3% identify as male. These findings indicate a majority of female students within the surveyed group.

Q 2: The age of students.

Age	Subject	Percentage %
18	6	8
19	22	29.33
20	30	40
21	9	12
22	3	4
23	1	1.33
24	1	1.33
29	1	1.33
30	2	2.66
Total	75	100

Table 17: The age of students.

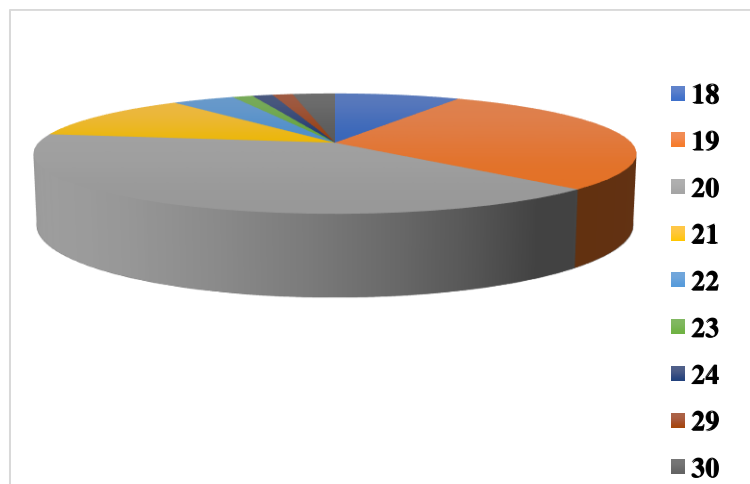


Figure 17: Age of students.

The majority of students fall within the range of 19 to 21 years, with 29 students being 19 years old, 40 students being 20 years old, and 12 students being 21 years old. The age group of 18 years is represented by 8 students, while the 22 years group consists of 4 students. Additionally, there is one student each in the age groups of 23 years, 24 years, 29 years, and 30 years, and only 2 students in the 30 years age group. These findings indicate that the majority of students surveyed are in their late teens or early twenties

Q 03: What is your level in English?

Level	Subject	Percentage%
Low	6	8
Average	25	33.3
Good	20	26.6
Very good	24	32

Table18: students' proficiency.

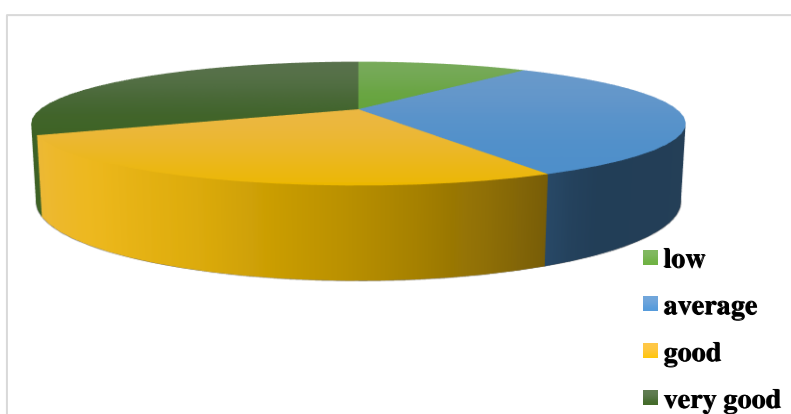


Figure 18: students' proficiency.

The data provided presents the distribution of English language proficiency levels among the surveyed students. According to the responses, 8% of students self-assessed their English level as low, while 33.3% considered it to be average. In contrast, 26.6% reported having a good command of English, and an equal percentage of 32% claimed to have a very good level of English proficiency. These results indicate that a substantial portion of the student population surveyed perceives their English proficiency to be at least average or higher.

Section Two: English as a Medium of Instruction (EMI).

Q 4: is your department providing English courses or ESP courses?

Option	Percentage %
Yes	60
No	40

Table 19: English courses that were provided by the faculty of computer science.

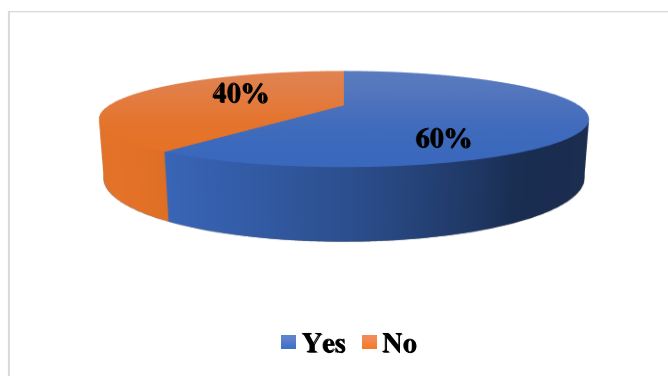


Figure 19: English courses that were provided by the faculty of computer science.

According to the responses, 60% of students indicate that their department does provide English courses or ESP courses, while 40% state that their department does not offer such courses. This data suggests that a majority of students surveyed have access to English instruction or specialized English courses tailored to their specific field of study.

Q 5: How many modules are taught using English in your department?

Option	Percentage %
1	100
2	0

Table 20: Modules taught in English

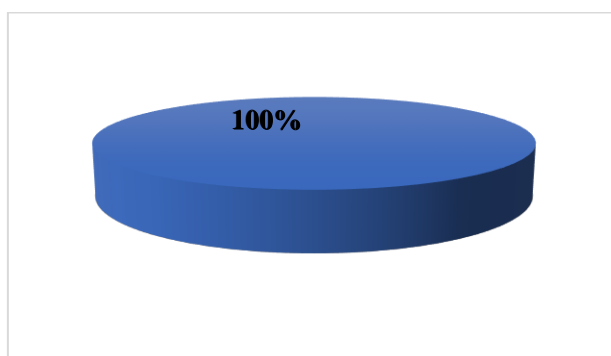


Figure 20: Modules taught in English.

Based on the responses received, it was found that all students (100%) reported the presence of at least one module being taught in English. However, none of the students mentioned having two modules delivered in English. This data indicates that the majority of surveyed students are enrolled in a department where at least one module is conducted in English.

Q 6: How often are you exposed to English courses weekly?

Option	Percentage %
1	100
2	0

Table 21: Number of English courses weekly.

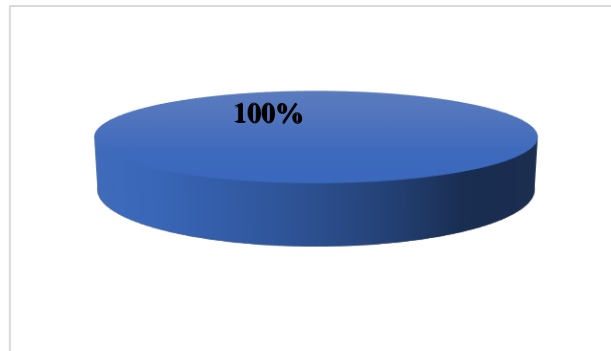


Figure 21: Number of English courses weekly.

According to the responses, 100% of students reported being exposed to English courses once a week, while none mentioned being exposed twice a week. This data suggests that the majority of students surveyed have English courses scheduled once a week as part of their curriculum.

Q 7: Do you find English courses or ESP courses provided by your department sufficient?

Option	Percentage %
Yes	29,3
No	70,7

Table 22: The courses of English or ESP courses are sufficient or not.

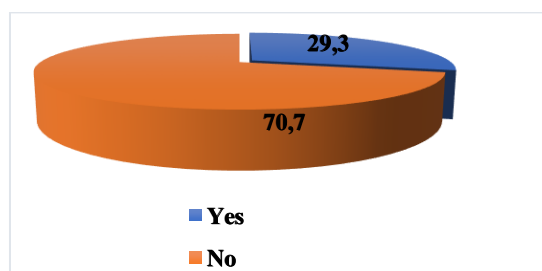


Figure 22: The courses of English or ESP courses are sufficient or not.

The responses indicate that 29.3% of students believe that the courses are indeed sufficient, while a significant majority of 70.7% express that they are not. This data suggests that a considerable number of students feel that the English or ESP courses they are enrolled in do not meet their needs or expectations.

Q 8: Do you enjoy your English courses?

Option	Percentage%
Yes	69,3
No	33,3

Table 23: Percentage of students enjoying the English courses.

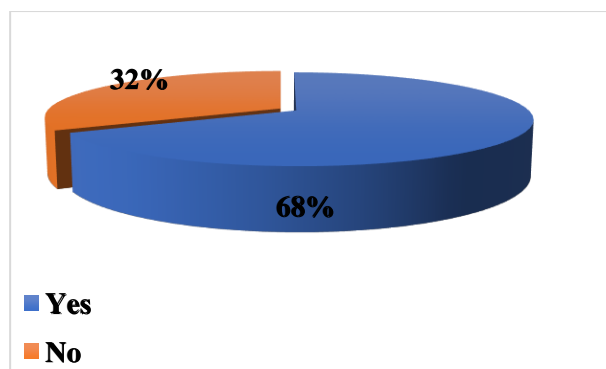


Figure23: Percentage of students enjoying the English courses.

The data provided indicates the percentage of students who enjoy English courses. According to the responses, 69.3% of students affirm that they do enjoy English courses, while 33.3% express that they do not. This data suggests that a majority of students have a positive attitude towards English courses and find them enjoyable. This may imply that they have an interest in the language itself, appreciate the teaching methods or materials used, or find value in the skills and knowledge gained through these courses. However, it is worth noting that a significant minority of students do not share the same sentiment and do not enjoy English courses. This could be due to various reasons, such as difficulties with the language, disengaging teaching approaches, or personal preferences. Recognizing and addressing the concerns of these students can be valuable in creating a more inclusive and engaging English learning environment for all.

Q 9: Which one of these linguistic obstacles may prevent you from enjoying and understanding your English courses?

Option	Percentage %
limited vocabulary	54,7
Lack of fluency	60
poor grammar	34.7

Table 24: Obstacles may prevent the students from enjoying and understanding the English courses.

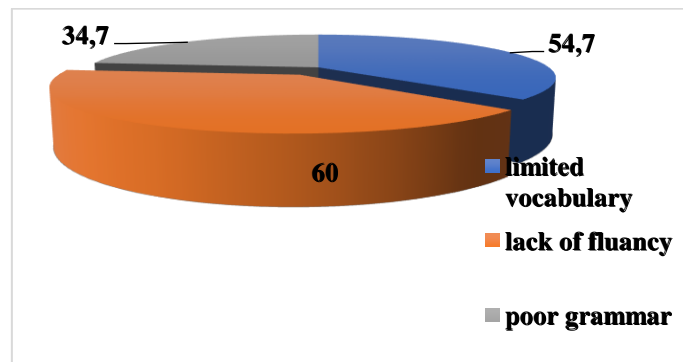


Figure 24: Obstacles may prevent the students from enjoying and understanding the English courses.

The data provided highlights the potential obstacles that students may face when it comes to enjoying and understanding English courses. The survey reveals that 54.7% of students identify limited vocabulary as a significant obstacle. This suggests that a considerable number of students struggle with a lack of words and expressions necessary to comprehend and engage with English materials effectively. Furthermore, 60% of students indicate a lack of fluency as a potential obstacle. This implies that many students may struggle with expressing themselves fluently in English, which can hinder their overall understanding and enjoyment of the courses. Additionally, 34.7% of students mention poor grammar as a challenge. This highlights the importance of grammatical accuracy to fully grasp and appreciate the content of English courses. These findings underscore the need for targeted support and resources to address these specific obstacles and help students overcome them for a more successful learning experience.

Q 10: Which of the following languages do you consider most suitable for higher education instruction?

Option	Percentage %
Arabic	54,7
French	24
English	60

Table 25: The most suitable language for higher education instruction.

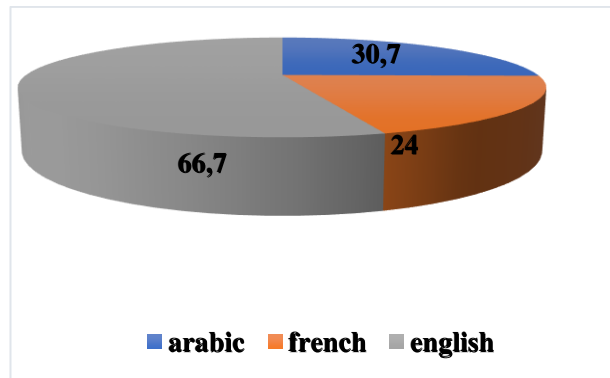


Figure 25: The most suitable language for higher education instruction.

The data provided shows the percentages of students' preferences for the most appropriate language to use for teaching in higher education. According to the responses, 54.7% of students prefer Arabic as the language of instruction, while 24% favor French. Interestingly, a majority of 60% of students express a preference for English as the language used for teaching in higher education. These statistics indicate a significant inclination towards English as the desired medium of instruction among the student population surveyed. It suggests that a substantial number of students believe that English would be the most suitable language for facilitating learning and academic success in higher education.

Q 11: Are you familiar with the term English as a medium of instruction?

Option	Percentage %
yes	77,3
No	22,7

Table 26: Students' familiarity with the term English as a Medium of Instruction.

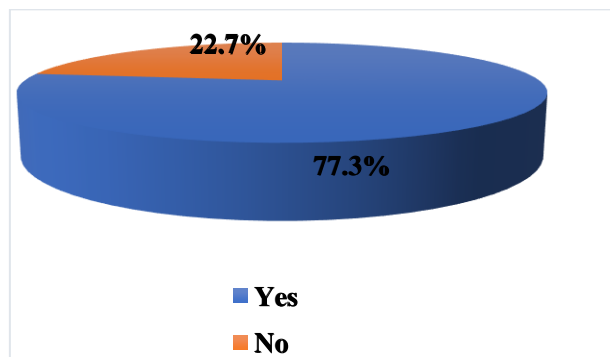


Figure 26: Students' familiarity with the term English as a Medium of Instruction.

The collected data represents the level of students' familiarity with the term "English as a Medium of Instruction." According to the responses, 77.3% of students indicate that they are familiar with this term, while 22.7% report not being familiar with it.

Q 12: Are you aware of the ministry's plan to promote English instead of French in teaching in higher education?

Option	Percentage %
Yes	77,3
No	22,7

Table 27: Students' awareness of the ministry's plan to promote English instead of French in teaching in higher education.

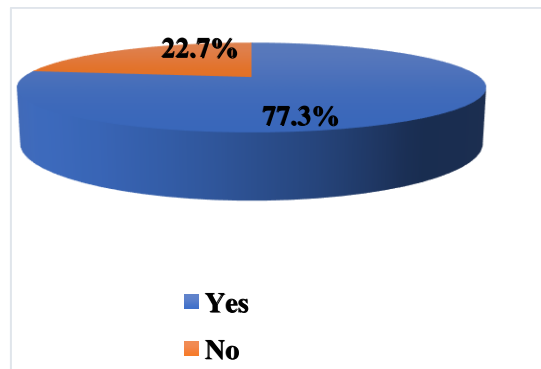


Figure 27: Students' awareness of the ministry's plan to promote English instead of French in teaching in higher education.

According to the responses, 77.3% of students indicate that they are aware of this plan, while 22.7% report being unaware of it. This data suggests that a significant majority of students surveyed are informed about the ministry's intention to prioritize English over French in teaching at the higher education level. This awareness may stem from official announcements, communication from educational institutions, or discussions within their academic circles.

What do you think about it:

The data provided reflects a diverse range of opinions regarding the ministry's plan to promote English as the language of instruction in higher education instead of French. While some student's express excitement, support, and enthusiasm for the change, highlighting the potential benefits of English in terms of global communication, academic resources, and future opportunities, others voice concerns, dissatisfaction, or a preference for French as the language of study.

Some students are optimistic about the decision, seeing it as a positive step forward for their education and prospects. On the other hand, some individuals feel uneasy or offended by the shift, emphasizing their investment in studying French and questioning the ease of the transition.

Some express reservations about the efficiency of the teaching method, while others appreciate the importance of promoting Arabic or supporting bilingual programs. Overall, the data reflect a range of perspectives, with students expressing a variety of emotions and opinions regarding the ministry's plan.

Q 13: your department provided you with English courses then at the end of the semester you were given the right to vote on whether you would like to be interrogated using French or English language. is it true?

Option	Percentage %
Yes, it is true	57,3
No, it is not true	42,7

Table 28: Voting with yes or no.

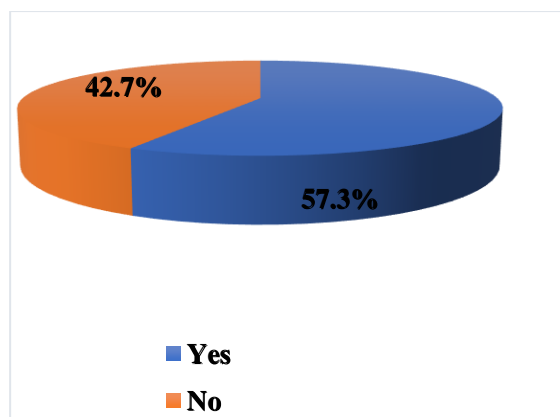


Figure 28: Voting with yes or no.

the students have been asked whether their department provided English courses and offered them the opportunity to vote on the language of interrogation, either French or English, at the end of the semester. According to the responses, 57.3% of students confirm that this statement is true, while 42.7% of students indicate that it is not true. These findings suggest that a majority of students surveyed have experienced the provision of English courses and the subsequent voting process to determine the language of interrogation. This approach highlights consideration for student preferences and an effort to incorporate their input in determining the language used for assessments. However, it is important to note that a significant minority of students disagree with

this statement, suggesting a potential variation in the experiences and practices across different departments or institutions.

Q 14: The majority choose to be taught and interrogated using the English language only, what’s your opinion about the results?

Opinion	Subject	Percentage %
Satisfied	24	32
Slightly annoyed	27	36
Highly annoyed	24	32

Table29: Students’ opinion about the interrogated language.

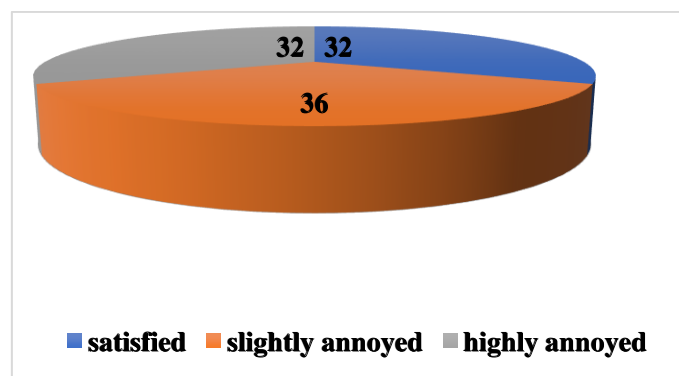


Figure 29: Students opinion about the interrogated language.

Among the respondents, 32% expressed satisfaction with this outcome, while 36% indicate feeling slightly annoyed, and another 32% reported being highly annoyed by the results. This indicates a significant division of opinions among the students surveyed. Those who are satisfied may appreciate the potential benefits of English as a global language, such as access to a wider range of resources, improved communication skills, and increased opportunities for international collaboration. On the other hand, those who feel annoyed may have concerns about the exclusion of their native language, potential language barriers, or a preference for French as the medium of instruction. It is important to acknowledge and address the concerns of both groups to ensure a balanced and inclusive learning environment.

Section three: attitudes towards using English as a medium of instruction

Q15: I prefer using the English language rather than French.

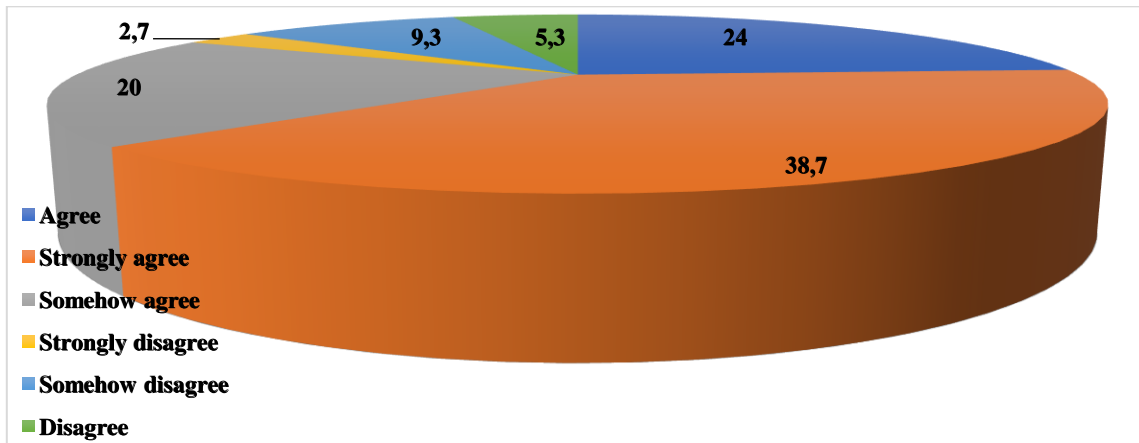


Figure 30: The preference for using the English language rather than French.

A large portion, 38.7%, strongly agree with this preference, emphasizing their strong inclination towards English as the preferred language. Additionally, 24% agree, while 20% somewhat agree, further demonstrating a favorable disposition towards English. On the other hand, only a small percentage, 2.7%, strongly disagree, and 5.3% disagree with the preference for English. A minority, 9.3%, somewhat disagree with the preference.

Q 16: English is the language of science.

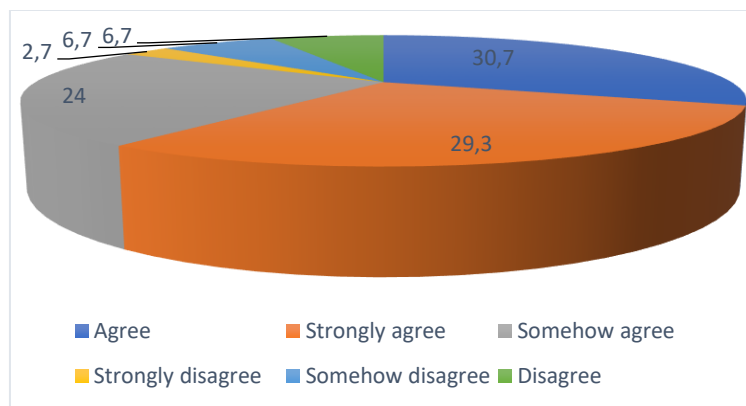


Figure 31: English is the language of science.

A significant portion, 29.3%, strongly agrees with this statement, emphasizing their firm belief in the dominance of English in the field of science. Additionally, 30.7% agree, while 24% somewhat agree, further reinforcing the notion that English holds a prominent position in scientific discourse. On the contrary, a small percentage, 2.7%, strongly disagrees, and 6.7% disagree with the notion that English is the language of science. Similarly, 6.7% somewhat disagree with this statement.

Q 17: English should be used as a medium of instruction in higher education in Algeria

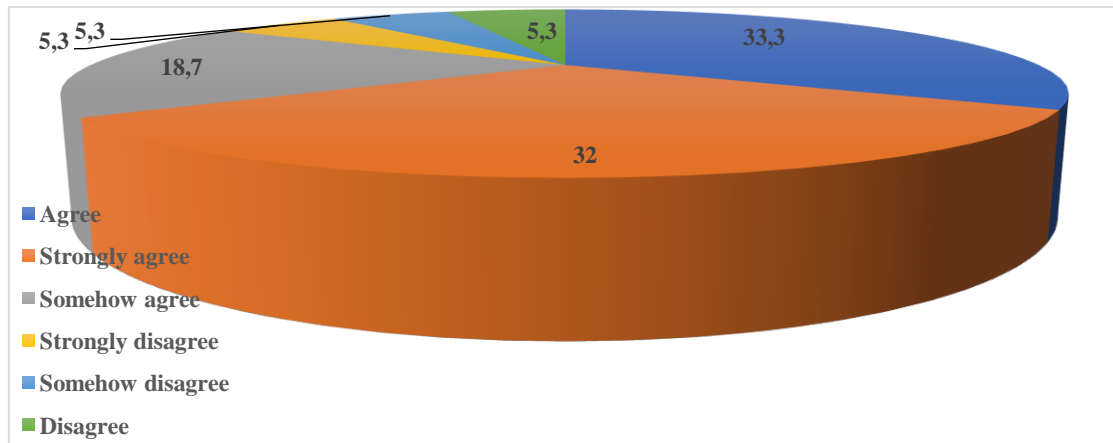


Figure32: English should be used as a medium of instruction in higher education in Algeria.

A significant proportion of respondents, 32%, strongly agree with this proposition, emphasizing their strong endorsement of English as the language of instruction. Additionally, 33.3% agree with this idea, while 18.7% somewhat agree, further demonstrating a favorable inclination towards English as a medium of instruction. Conversely, only a small percentage, 5.3%, strongly disagree and disagree with this notion. Similarly, 5.3% somewhat disagree with using English as the medium of instruction.

Q 18: I prefer courses taught in English rather than courses taught in French.

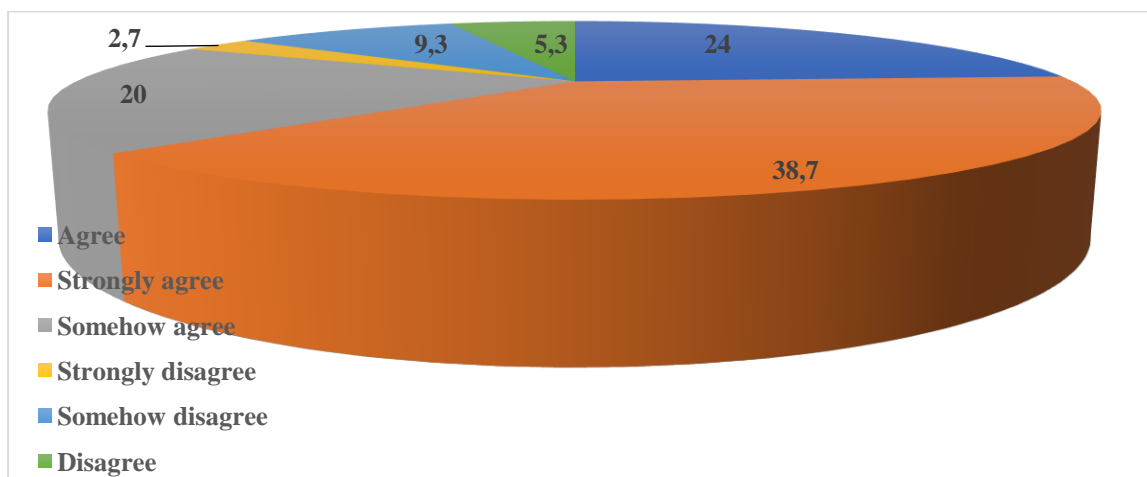


Figure 33: Preference of courses in English rather than courses in French.

A substantial proportion, 38.7%, strongly agree with this preference, highlighting their strong endorsement of English as the language of instruction. Additionally, 24% agree with this sentiment, while 20% somewhat agree, further emphasizing a favorable inclination towards

English-taught courses. On the other hand, a minority, 2.7%, strongly disagree, and 5.3% disagree with this preference. Similarly, 9.3% somewhat disagree with courses taught in English. These results reflect considerable support for English as the preferred language for instructional purposes.

Q 19: Adopting English as a medium of instruction will have a positive impact on Algerian development.

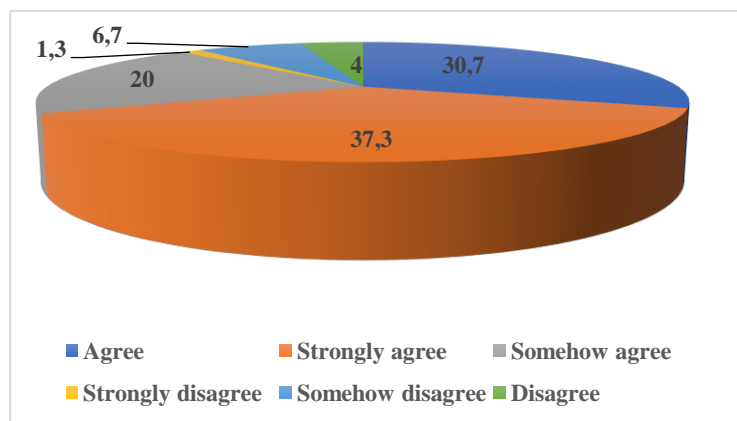


Figure 34: Adopting English as a medium of instruction will have a positive impact on Algerian development.

The data suggests a strong belief among the surveyed individuals that adopting English as a medium of instruction in Algeria will have a positive impact on the country's development.

A significant proportion, 37.3%, strongly agree with this viewpoint, indicating a high level of conviction in the potential benefits. Additionally, 30.7% agree with this statement, while 20% somewhat agree, further emphasizing a favorable stance. Conversely, a small percentage, 1.3%, strongly disagree, and 4% disagree with this notion. Moreover, 6.7% somewhat disagree with the positive impact of English as a medium of instruction

Q 19: I'm ready to shift from French to English.

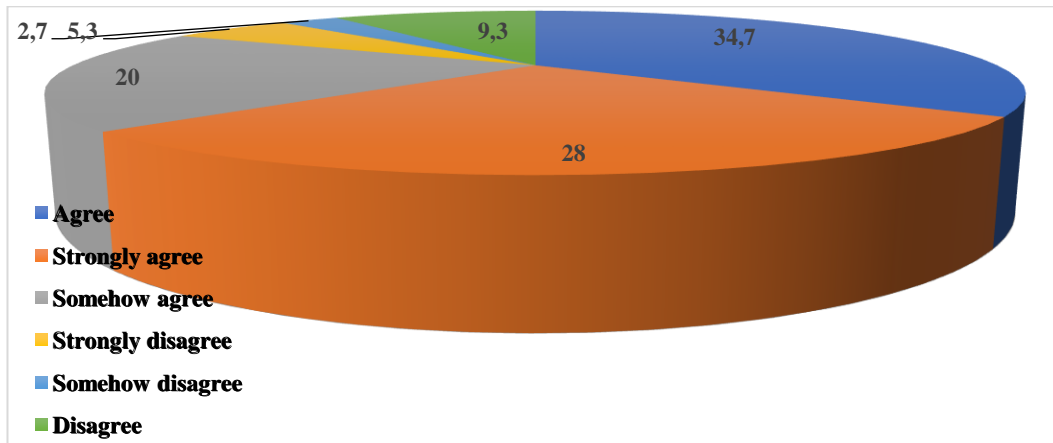


Figure 35: I'm ready to shift from French to English.

A substantial portion, 36%, strongly agrees with this statement, demonstrating a strong conviction and readiness for the transition. Additionally, 34.7% agree and 20% somewhat agree, further supporting the notion of being prepared for the shift. Conversely, a small percentage, 6.7%, strongly disagrees, while 6.7% disagree with the idea of transitioning from French to English. Moreover, only 2.7% somewhat disagree. The high percentage of agreement and strong support for the shift to English suggests a positive attitude towards the potential benefits associated with this change

Q 20: I look forward to the integration of English language into higher education

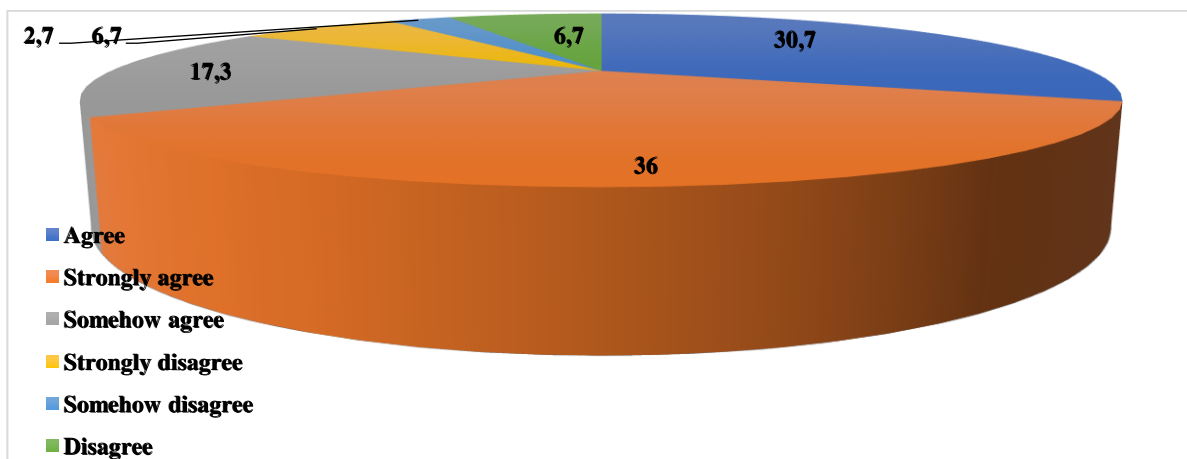


Figure36: Looking forward the integration of English language into higher education.

The data reveals a strong positive sentiment towards the integration of the English language into higher education among the respondents. A significant portion, 36%, strongly agrees with this statement, indicating a high level of enthusiasm and anticipation for the inclusion of English in academic settings. Furthermore, 30.7% agree and 17.3% somewhat agree, solidifying the overall

support for this integration. On the other hand, a small percentage, 6.7%, strongly disagrees, while another 6.7% disagrees with the idea. Additionally, only 2.7% somewhat disagree.

Q 21: I don't find a difference between French and English

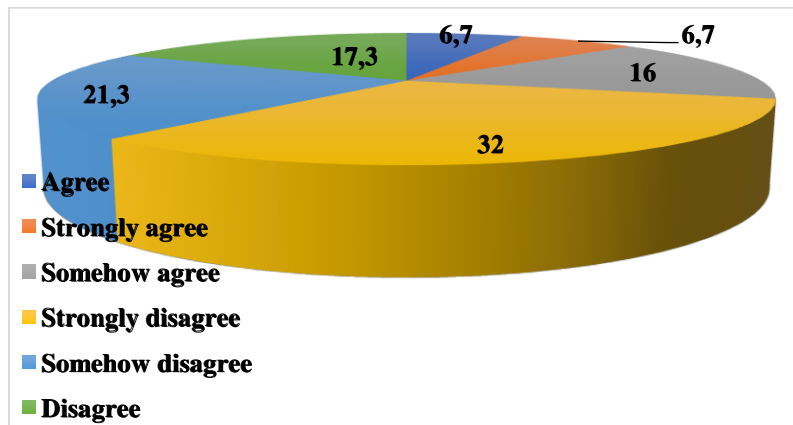


Figure 37: I don't find a difference between French and English.

A considerable percentage, 32%, strongly disagrees with the statement, indicating a clear belief in the existence of notable distinctions between the two languages. Furthermore, 21.3% somewhat disagree, suggesting that they perceive some differences but not to a significant extent. On the other hand, only 6.7% strongly agree and 16% somewhat agree, indicating that they perceive minimal or no discernible differences between French and English. Additionally, 17.3% disagree with the statement. These responses indicate a division of opinions among the respondents regarding the similarities or differences between the two languages.

Q 22: Studying English is a great challenge for me.

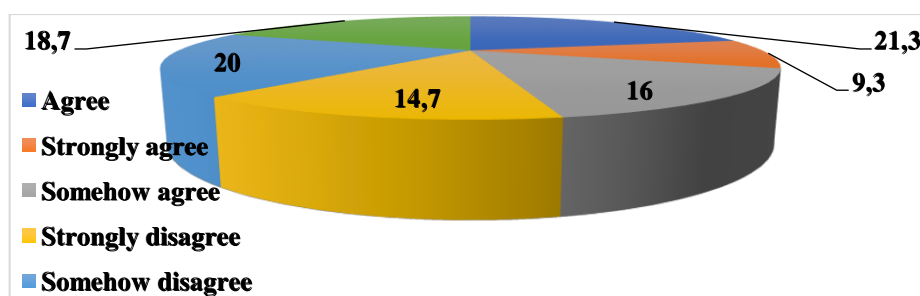


Figure 38: Studying English is a great challenge for me.

The data reflects a range of sentiments regarding the perceived challenge of studying English. A significant portion of the respondents, 21.3%, agree that studying English poses a great challenge for them. Additionally, 16% somewhat agree, indicating that they also acknowledge the difficulties but perhaps to a lesser extent. Conversely, 20% somewhat disagree and 14.7% strongly disagree, suggesting that they perceive studying English as less challenging or not challenging at

all. Furthermore, 9.3% strongly agree, indicating a strong belief in the difficulty of studying English, while 18.7% simply disagree.

Q 23: Studying in French is useless as the majority of scientific research is published in English.

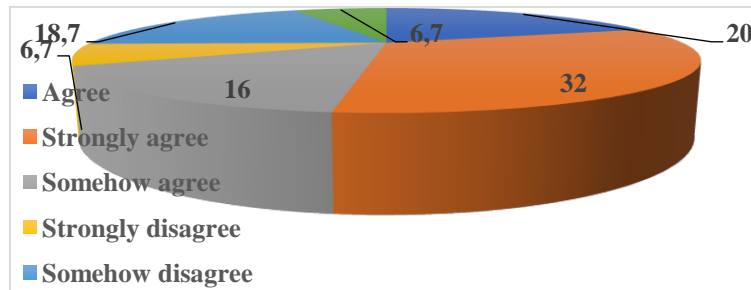


Figure 39: Studying in French is useless as the majority of scientific research is published in English.

A considerable portion of respondents, 32%, strongly agree with the statement, indicating a strong belief that studying in French is indeed useless due to the dominance of English in scientific research. Additionally, 20% agree and 16% somewhat agree, further supporting the notion that studying in French may not be as beneficial in the context of scientific research. On the other hand, 18.7% somewhat disagree and 6.7% strongly disagree, suggesting that they hold different perspectives, possibly valuing the importance of studying in French or not perceiving it as completely useless despite the prevalence of English in scientific publications. Meanwhile, 6.7% simply disagree. This data underscores the ongoing debate surrounding the language of instruction in science education.

Q 24: In the future, if an English course is offered at a university or any other institution, I express my interest in enrolling and taking the course.

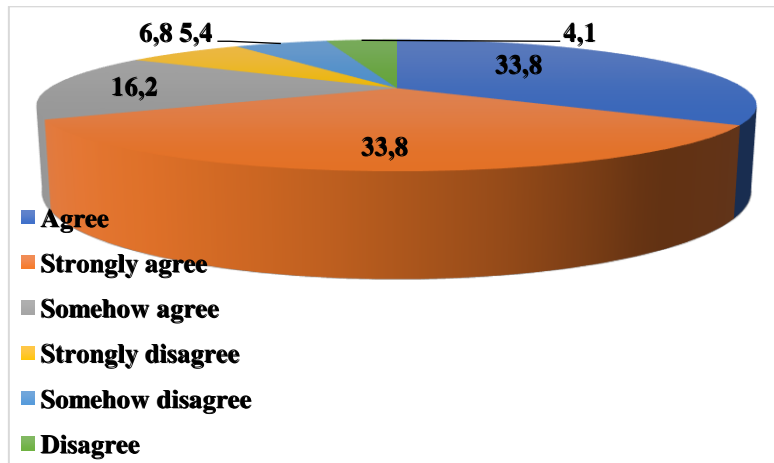


Figure 40: In the future, if an English course is offered at a university or any other institution, I express my interest in enrolling and taking the course.

2.2.4 Analysis and Discussion of the Headmaster’s Interview:

Q1: Do you believe that using English as a medium of instruction is important for the field of information technology and computer science?

Yes I do, English is the Lingua franca of the global technology industry it will give our teachers and students easier access to scientific research papers articles and documentation published exclusively in the English language. In addition, computer science programming and coding is taught using English globally even for French-speaking countries like France, Canada, Belgium and so over; Moreover, the utilization of English as a common language in the technology industry opens up opportunities for collaboration with international organizations and facilitates global partnerships in the field of technology.

Q2: Will your department be able to shift from French to English in teaching?

In recent years, our department has taken significant strides towards implementing the vision EMI as advocated by the Ministry of Higher Education, as part of the broader Modernization of the Algerian University reforms agenda. These reforms have paved the way for a gradual and seamless transition from French to English as the primary language of instruction, beginning with

the upcoming academic year of 2023-2024. This transition signifies a fundamental shift in the entire teaching system.

Q3: according to your opinion, are the ESP courses presented in your department adequate?

I am unable to express an honest opinion due to several reasons, the primary reason for that for the insufficiency of the ESP courses in the department is the limited time of instruction It is important to acknowledge that addressing the specific needs of students within a single session per week is quite challenging. ESP courses require tailored content and specialized instruction that cater to the unique language and communication requirements of specific fields or disciplines.

Q4: Do you believe that students in your department are ready to learn English?

It is important to note that students do not have the privilege of determining the language of instruction in their academic programs. While it is true that the introduction of English as a medium of instruction may present initial challenges, students must adapt to this new situation. It is worth mentioning that even with French as the language of instruction, many students face difficulties in understanding their courses. Despite the challenges they face, students demonstrate resilience and exert effort to succeed in their studies. Motivation, particularly in the context of language learning, plays a crucial role, and it is fortunate that our students exhibit a strong desire to learn and enhance their proficiency in the English language. This positive attitude and receptiveness to learning contribute significantly to their overall academic growth and achievement in English language studies.

Q 5: What are the proposed procedures within your department to facilitate English language instruction for students?

Several noteworthy preparations have been undertaken to facilitate the instructional process, one significant step is the introduction of the Oxford Test of English exclusively within our

department. Our university is the sole institution in Africa that provides this test free of charge, and it has been available for the past three months. This test allows students to assess their English language proficiency more accurately.

Q 6: Considering the limited English proficiency among many Algerian teachers, do you believe they will be able to effectively collaborate and teach in English?

The proficiency of teachers in English can indeed pose a challenge to effective teaching. However, in the case of our department, I am confident that this difficulty will be minimal. This is because a significant portion of our teachers, approximately 40%, have received their education solely in English. They have graduated from reputable institutions in countries such as UK, Canada, Mauritius, and even the American University of the UAE. Therefore, language proficiency will not be a hindrance for these teachers, as they are well-equipped to teach in English.

Q 7: As you mentioned 40% of teachers in your department hold an advanced level in English what about the remaining 60%?

Approximately 30% of teachers in our department already possess an upper-intermediate level of English proficiency. As we prepare for the transition to English as a medium of instruction, it is important to note that a majority of our teachers have actively worked on improving their English language skills in recent years. However, the remaining 30% of teachers will also be expected to enhance their English proficiency. They can achieve this by either participating in mandatory language courses offered by the on-campus language centers or taking the initiative to independently practice and develop their English skills at home. These teachers are left with no other option but to dedicate themselves to self-improvement to effectively teach in English.

Q 8: How can teachers be expected to teach effectively using English if their materials are already designed to be taught in French?

Interestingly, many teachers in the field of information technology and computer science already prepare their lessons in English and deliver them in English during seminars. However, they are then expected to translate the content into French for teaching in Algerian universities. To address this challenge, teachers have been revising and updating their course materials, textbooks, and resources to ensure their compatibility with English-language instruction. Furthermore, our department has provided teachers with a valuable resource in the form of a book titled "Lecture Notes in English for Computing" by Professor Linda Belabdelouhaeb Fernini. This book serves as a helpful reference to assist teachers in delivering their lessons effectively in English.

Q 9: What are the possible difficulties that will be expected to occur after implementing English as a medium of instruction in higher education?

The implementation of English as a medium of instruction may face resistance from teachers who have been heavily influenced by French language and prefer to teach in French. This resistance could lead to a reluctance to use English in their instructional practices. Unqualified teachers may encounter difficulties in achieving fluency in English, unlike their qualified counterparts. Instead of a gradual shift and the use of simplified terms, unqualified teachers may inadvertently overwhelm students with lower levels of English proficiency by using sophisticated language and terminology.

Q 10: What specific recommendations and advice can be provided to enhance the quality and effectiveness of using English as a medium of instruction in educational settings?

Both teachers and students must perceive language as a facilitator rather than an obstacle in the pursuit of knowledge and academic subjects. To achieve this, it is recommended that teachers and students engage in professional training and language courses to enhance their English proficiency levels. It is important to acknowledge that attaining perfection in English may not be necessary; instead, a gradual shift towards increased English language usage can be a viable approach. By embracing continuous improvement and adopting a positive mindset towards language learning,

teachers and students can effectively utilize English as a medium of instruction while focusing on their desired subjects and academic disciplines.

Conclusion:

This chapter focuses on the research methodology employed in this study and the analysis of the collected data. Both qualitative and quantitative approaches were utilized to gather comprehensive insights into the attitudes towards the English language. The data collection methods included questionnaires and interviews.

The questionnaires were distributed to learners and teachers to capture their attitudes and opinions regarding the English language. The responses were carefully analyzed to identify common themes and patterns. Additionally, in-depth interviews were conducted with selected participants to gain a deeper understanding of their experiences and perspectives. The interviews provided valuable qualitative data that complemented the quantitative findings.

The collected data underwent rigorous analysis using both qualitative and quantitative techniques. Qualitative analysis involved examining the responses for recurring themes and nuances, while quantitative analysis involved statistical methods to quantify and summarize the data. This mixed-methods approach ensured a comprehensive understanding of the research topic.

Overall, the results indicated that both learners and teachers exhibited positive attitudes towards the English language. The findings emphasized the perceived value and importance of English for academic and professional purposes.

2.2.5 Limitations of the study:

A significant constraint arises from the time restriction under which the study was conducted. The research was executed during the concluding phase of the second semester of the academic year 2022/2023, imposing temporal constraints on data collection and analysis. This compressed

timeframe potentially impacted the comprehensiveness and depth of the findings, neglecting long-term trends or evolving attitudes and perceptions.

Another noteworthy limitation stems from the lack of cooperation exhibited by both students and teachers. Owing to their busy schedules and numerous commitments, a subset of teachers exhibited non-responsiveness to certain sections of the questionnaire, while others failed to return it altogether. Consequently, incomplete data and potential response biases may have ensued. Furthermore, a subset of students provided unserious responses, possibly due to limited comprehension or disinterest in the subject matter. These further compounds the interpretation of findings and undermines the overall validity of the study.

Moreover, it is crucial to acknowledge that the topic of English as a Medium of Instruction (EMI) remains relatively nascent within the Algerian context. Consequently, the availability of pertinent reference materials such as books, articles, and established frameworks specific to EMI implementation and its ramifications in the Algerian higher education system is notably scarce. The limited corpus of relevant literature and scholarly works may have impeded the depth of analysis and hindered the exploration of certain facets related to the research inquiry.

2.2.6 Recommendations and implications:

Gradual Transition: Implement a carefully planned regimen devised by course designers, policymakers, and experts in the field to ensure a gradual and seamless transition into English language instruction. This approach emphasizes the importance of proficiency in English, particularly in scientific domains.

Teacher Proficiency: Recruit proficient English teachers with an advanced level of proficiency and prior experience in English Medium Instruction (EMI). These teachers will provide instructional guidance to educators on effective English language teaching methodologies.

Professional Training: Offer comprehensive professional training programs and well-structured courses to enhance the proficiency of educators in the English language. This training equips teachers with the necessary skills and knowledge to deliver effective English language instruction.

Increased Teaching Hours: Allocate additional teaching hours for English language instruction in primary, middle, and high schools. This extended focus on English language learning enables students to develop higher proficiency levels before entering college.

Curriculum Adjustment: Implement a permanent curriculum adjustment in primary schools by eliminating the instruction of the French language and shifting the focus exclusively to the teaching of English. This ensures a consistent and dedicated approach to English language learning.

Financial Incentives: Provide financial incentives, such as allowances and bonuses, to encourage teachers to actively invest in enhancing their English language proficiency. This promotes their professional growth and commitment to continuous development in English language skills.

Revised Course Materials: Revise and adapt course materials, resources, and teaching materials to align them with the English language. This ensures that the materials used in instruction are suitable and compatible with English language learning.

General conclusion:

The current study aims to investigate the attitudes and perceptions of teachers and students toward English Medium Instruction (EMI) in higher education in Algeria. EMI has gained prominence in higher education settings as English continues to be widely used as an international language. The research employed a mixed-methods approach, combining qualitative methods through interviews with the head of the department of the faculty of information technology and Computer science and quantitative methods through a questionnaire administered to both teachers and students of the faculty

The theoretical framework of the study encompasses three sections, the first section explored the various meanings and significance of EMI in higher education. The status of EMI in Algerian universities in addition to the shift from the French language to the English language was also discussed. Furthermore, the second section delved into the concept of attitudes, exploring their types, components, theories, models and measurement while the third section mentioned the use of EMI in different universities around the world such as Rwanda, and Pakistan.

The second chapter presented a detailed analysis and interpretation of the results obtained from the students' and the teachers' questionnaires and the interviews conducted with the head of the faculty of information technology and computer science. Additionally, the chapter acknowledged the limitations of the study and proposed pedagogical implications for teachers, students, and policymakers. The research questions posed at the beginning of the study were addressed based on the findings. It was found that both teachers and students had positive perceptions of using English as a medium of instruction, recognizing its importance as the language of the world, science, knowledge, and technology. They also acknowledged the benefits of EMI for Algerian universities, including the potential to enhance their international rankings and participation in scientific research.

The findings from the teachers' and students' questionnaires demonstrate their awareness of the significance of EMI in the teaching and learning process. Students expressed their interest in using English to receive their courses, while both teachers and students expressed a desire for English to be integrated into higher education and to stay updated with global developments. They emphasized the importance of English in accessing current scientific articles and advancements.

Regarding the challenges associated with EMI, the head of the department of ITCS highlighted the need for teachers to receive adequate training to effectively utilize English as a medium of instruction. Additionally, students' motivation to learn and engage with English was considered crucial, emphasizing the acquisition of scientific vocabulary relevant to their field of study

In summary, the study provides insights into the attitudes and perceptions of teachers and students toward EMI in higher education. The results indicate positive attitudes towards English as a medium of instruction, with recognition of its benefits and potential challenges. The findings contribute to the understanding of implementing EMI in educational settings and highlight the importance of English in scientific studies.

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Appendix 1

Students' Questionnaire

This questionnaire aims to collect data used for our study to accomplish our master's degree at the Department of English. The questions were designed to investigate the attitudes of students toward the use of English as a medium of instruction at the faculty of computer and science at Mohamed Boudiaf University in Msila. We highly appreciate your time therefore the questionnaire will take about 07 minutes to finish, we herbily request you to answer the questions with honesty and transparency to ensure the validity of our research.

Thank you in advance.

Section One: general information

1. Gender:

Female

Male

2. Age:

18

19

20

21

23

24

25

Others

3. English level:

Very good

Good

Average

Poor

Section Two: English as a Medium of Instruction

1. Is your department providing English courses or ESP courses?

Yes

No

2. How many modules are taught using the English language in your department?

3. Do you find English courses or ESP courses provided by your department sufficient?

I do

I don't

4. Do you enjoy your English courses?

Yes

No

5. Which one of these linguistic obstacles may prevent you from enjoying and understanding your English courses?

Lack of vocabulary Lack of vocabulary Poor grammar

6. Which one of these languages do you find the most appropriate to use to teach in higher education?

Arabic French English Others

7. Are you familiar with the term English as a medium of instruction?

Yes

No

8. Are you aware of the ministry's plan to promote English instead of French in teaching in higher education?

Yes

No

What do you think about it:

.....
.....
.....

9. According to you are students ready to shift from French to English in higher education?

Yes

No

What is your opinion about it?

.....
.....
.....
.....

10. your department provided you with English courses and at the end of the semester, you were given the right to vote on whether you would like to be interrogated using French or English language. is it true

yes

no

11. The majority choose to be taught and interrogated using the French language only, what's your opinion about the results:

Satisfied somehow disturbed highly annoyed

Section three: attitudes towards using English as a medium of instruction

The Following are several statements with which some people agree and others disagree. We would like you to indicate your opinion after each statement by putting an “X” in the box that best indicates the extent to which you agree or disagree with the statement.

Statement	Strongly agree	Somehow agree	agree	Strongly disagree	Somehow disagree
1. I prefer using the English language rather than French.					
2. English is the language of science.					
3. English should be used as a medium of instruction in higher education in Algeria					
4. I prefer courses taught in English rather than courses taught in French.					
5. Adopting English as a medium of instruction will have a positive impact on Algerian development.					
6. I'm ready to shift from French to English					
7. I look forward to the integration of the English language into higher education					
8. I don't find a difference between French and English					
9. Studying English is a great challenge for me.					

10. Studying in French is useless as the majority of scientific research is published in English.					
11. Algerian universities are not ready to use English as a medium of instruction yet.					
12. If an English course was offered at a university or somewhere else in the future, I would like to take it.					
13. I am prepared to expend a lot of effort in learning English.					

Section four: further suggestions

Do you have any suggestions or comments about what you have dealt with in the previous sections?.

.....

.....

Thank you for your time.

Appendix 2

Teacher's questionnaire

Dear teachers,

Thank you for taking the time to participate in our questionnaire. We are conducting a study as part of our master's degree at the Department of English, the purpose of this survey is to investigate the attitudes of teachers toward the use of English as a medium of instruction at the faculty of information technology and Computer Science at Mohamed Boudiaf University in M'sila. This research topic is of great significance as it contributes to ongoing discussions about language policies and their impact on pedagogy and learning outcomes in higher education. As a teacher at this institution, we kindly request you answer the survey questions with clarity and honesty to ensure the validity of our research. We understand that it may require 8 minutes of your valuable time, and we guarantee that any information shared will be kept confidential

Section one: General information

1. Gender:

Female

male

2. Age:

Under 25

25-29

30-39

40-49

50-59

60

3. What is the highest degree that you hold?

a. Bachelor (License)

b. Master

c. Magisterd

d. Doctorate (PhD)

4. How long have you been working as a teacher at the Department of Mathematics and computer science?

1ST Year

1-2

3-5

6-10

11-15

16-28

More

5. Your English level is:

Upper intermediate level

Intermediate level

Post beginner level

Beginner level

6. Do you think that using English as a medium of instruction is beneficial to the field of computer science

Yes

No

7. Have you ever taught an ESP course (English for a specific purpose)?

Yes No

8. What is the language you feel most comfortable using while teaching?

Arabic French English

Other:

9. Do you believe that teaching in English improves the quality of education for your students?

Yes No

10. Do you believe that students should be required to have a certain level of English proficiency before enrolling in courses that use English as a medium of instruction?

Yes No

11. Have you noticed any difference in the performance of students in courses that are taught in English versus those taught in French?

Yes No

12. If the Ministry of higher education asked university teachers to attend sessions or training to develop university teachers' English language level what will your attitude be like?

Positive Negative Neutral

13. Do you face challenges when you use the English language to teach?

Yes No

If the answer is yes, on what level?

Limited vocabulary Lack of fluency The four skills

All of the above None of the above

Others.....

14. Do you think that the use of English as the medium of instruction should be expanded across more departments at the University of M'sila?

Yes

No

15. Why important do you think it is for Algerian universities to develop English language proficiency among their students and faculty?

.....

16. In your opinion, what are the potential effects on teaching and learning in higher education when English is used as the language of instruction instead of French?

.....

17. In your opinion, what are the difficulties that the Algerian government may face when putting this decision into practice?

.....

18. What kind of support do you think teachers need to effectively teach in English?

.....

.....

19. Any suggestions to avoid those difficulties:

.....

.....

Thank you for your time.

Appendix 3

Headmaster' interview

- Do you believe that using English as a medium of instruction is important for the field of information technology and computer science?
- Will your department be able to shift from French to English in teaching?
- according to your opinion, are the ESP courses presented in your department adequate?
- . Do you believe that students in your department are ready to learn English?
- What are the proposed procedures within your department to facilitate English language instruction for students?
- Considering the limited English proficiency among many Algerian teachers, do you believe they will be able to effectively collaborate and teach in English?
- As you mentioned 40%of teachers in your department hold an advanced level in English what about the remaining 60%?
- How can teachers be expected to teach effectively using English if their materials are already designed to be taught in the French language?
- What are the possible difficulties that will be expected to occur after implementing English as a medium of instruction in higher education?
- What specific recommendations and advice can be provided to enhance the quality and effectiveness of using English as a medium of instruction in educational settings?

ملخص:

تهدف هذه الدراسة إلى التحقق في مواقف كلا من المعلمين والطلاب تجاه استخدام اللغة الإنجليزية كوسيلة تعليمية في كلية تكنولوجيا المعلومات وعلوم الحاسوب بجامعة المسيلة. اعتمادًا على الأعمال السابقة في هذا المجال، تسعى هذه الدراسة إلى فهم وجهات النظر والتفضيلات المتعلقة باستخدام اللغة الإنجليزية كبديل محتمل للفرنسية في الجامعات الجزائرية. لتحقيق أهداف البحث، تم جمع البيانات الكمية والنوعية من خلال توزيع استبيانين، الأول نُشر عبر الإنترنت وأجاب عليه خمسة وسبعون (75) طالبًا في السنة الثانية من تخصص تكنولوجيا المعلومات وعلوم الحاسوب، أما الاستبيان الثاني فتم توزيعه على 21 معلمًا تمت الاجابة عليه بالإضافة إلى مقابلة اجريت مع رئيس القسم. باستخدام هذه المنهجية، تسعى الدراسة إلى الحصول على فهم شامل للمواقف تجاه اللغة الإنجليزية كوسيلة تعليمية. تسلط نتائج هذه الدراسة الضوء على إدراك المشاركين لأهمية اللغة الإنجليزية كوسيلة تعليمية في كلية تكنولوجيا المعلومات وعلوم الحاسوب. بشكل ملحوظ، أظهر غالبية المشاركين مواقف إيجابية تجاه استخدام اللغة الإنجليزية في مساعيهم الأكاديمية. تسهم هذه النتائج في الجسم المعرفي الموجود وتقدم رؤى قيمة للمتعلمين والمعلمين وصناع القرار. من خلال استكشاف آراء المعلمين والطلاب، تقدم الدراسة فهمًا أعمق للتأثيرات التربوية المحتملة لتنفيذ اللغة الإنجليزية كوسيلة تعليمية في التعليم العالي في الجزائر.

