

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

*Ministry of Higher Education and Scientific Research*

*Belhadj Bouchaib University - Ain Temouchent*



Faculty of Letters, Languages, and Social Sciences

Department of Letters and English Language

**Investigating the Shift to English as a Medium of Instruction  
in the Algerian Higher Education: The Case of First-Year  
Students and Teachers of Mathematics and Computer Science  
at the University of Ain Temouchent Belhadj Bouchaib**

*An extended essay submitted in partial fulfilment of the requirement for a  
Master's degree in Didactics and Applied Languages*

**Submitted by:**

Ms. Ines GUENAOUI

**Supervised by :**

Dr. Kheira HADI

**Board of Examiners:**

<b>President</b>	<b>Dr. Amina KERKEB</b>	<b>MCA</b>	<b>Belhadj Bouchaib Ain Temouchent University</b>
<b>Supervisor</b>	<b>Dr. Kheira HADI</b>	<b>MCA</b>	<b>Belhadj Bouchaib Ain Temouchent University</b>
<b>Examiner</b>	<b>Dr. Amina BOUMEDIENE</b>	<b>MCB</b>	<b>Belhadj Bouchaib Ain Temouchent University</b>

**Academic Year: 2023 – 2024**

# *Dedications*

*I dedicate this humble work to:*

*My dear parents, my Mother & my Father for their unwavering support and guidance  
throughout my journey.*

*My siblings, my sister & my brothers, as well as my nieces and nephew.*

*Lastly, to all those who have offered their support, no matter how small.*

# Acknowledgements

Sincere gratitude goes to my supervisor, **Dr. Kheira HADI**, for her guidance, patience, support, and valuable insights throughout this research work.

Special thanks are also extended to the members of the jury, **Dr. Amina KERKEB** as the president, and **Dr. Amina BOUMEDIENE** as the examiner, for their precious time and valuable remarks.

Appreciation goes to the entire Department of Mathematics and Computer Science at the University of Belhadj Bouchaib Ain Temouchent, including the students, teachers, the head of the department, and the administration for their professionalism and cooperation. Without their assistance and contributions, this research would not have been accomplished.

Lastly, I extend my thanks to the staff of the Department of English at the University of Ain Temouchent.

# Abstract

The global prominence of English has led to its widespread adoption as a medium of instruction in higher education institutions worldwide. This shift poses challenges, particularly in non-Anglophone countries. This study investigated the challenges and opportunities arising from the shift to English as a medium of instruction for first-year students and teachers of Mathematics and Computer Science at the University of Ain Temouchent in Algeria. A mixed-methods approach was employed, involving an online questionnaire administered to students, semi-structured interviews with teachers, and classroom observations. The findings revealed that while students and teachers acknowledged the benefits of English as a medium of instruction in providing access to global educational resources and career opportunities, they encountered significant challenges due to limited English proficiency and a lack of training for teachers in English as a medium of instruction. However, strategic translanguaging practices facilitated comprehension and fostered a more inclusive learning environment. The study highlighted the need for comprehensive English language training programs for teachers, curriculum revisions at pre-university levels, and the integration of educational technology to optimize the implementation of English as a medium of instruction in classroom. The research contributed insights into navigating academic language policy shifts and maximizing English as a medium of instruction opportunities in non-Anglophone contexts.

**Keywords:** English as a Medium of Instruction (EMI), language policy shift, Algerian higher education, HE, scientific fields.

# List of Tables

<b>Table 1.1:</b> The updated structure for English Language Teaching in Algeria .....	20
<b>Table 3.1:</b> Students' gender distribution .....	52
<b>Table 3.2:</b> Students' academic specialties .....	53
<b>Table 3.3:</b> Students' English language proficiency .....	54
<b>Table 3.4:</b> Students' English use outside of the classroom .....	54
<b>Table 3.5:</b> Students' opinions on the use of English in scientific fields .....	55
<b>Table 3.6:</b> Students' feelings about the transition to EMI .....	56
<b>Table 3.7:</b> Students' perceptions of the importance of adopting EMI .....	57
<b>Table 3.8:</b> EMI impact on Students' learning experience .....	58
<b>Table 3.9:</b> EMI impact on Students' academic performance .....	59
<b>Table 3.10:</b> Students' difficulties .....	61
<b>Table 3.11:</b> Students' specific difficulties .....	61
<b>Table 3.12:</b> Students' perception of the MESRS's platform .....	62
<b>Table 3.13:</b> Students' opinion on English at pre-university levels .....	63
<b>Table 3.14:</b> Students' opinion on the effectiveness of ESP courses .....	64
<b>Table 3.15:</b> English Language Support Availability .....	64

# List of Figure

<b>Figure 1.1:</b> Continuum of EMI in practice .....	24
<b>Figure 2.1:</b> Research Design.....	47
<b>Figure 3.1:</b> Students' gender distribution .....	52
<b>Figure 3.2:</b> Students' academic specialties .....	53
<b>Figure 3.3:</b> Students' English language proficiency .....	54
<b>Figure 3.4:</b> Students' English use outside of the classroom .....	54
<b>Figure 3.5:</b> Students' opinions on the use of English in scientific fields .....	55
<b>Figure 3.6:</b> Students' feelings about the transition to EMI .....	56
<b>Figure 3.7:</b> Students' perceptions of the importance of adopting EMI .....	57
<b>Figure 3.8:</b> EMI impact on Students' learning experience .....	58
<b>Figure 3.9:</b> EMI impact on Students' academic performance .....	59
<b>Figure 3.10:</b> Students' difficulties .....	61
<b>Figure 3.11:</b> Students' specific difficulties .....	61
<b>Figure 3.12:</b> Students' perception of the MESRS's platform .....	62
<b>Figure 3.13:</b> Students' opinion on English at pre-university levels .....	63
<b>Figure 3.14:</b> Students' opinion on the effectiveness of ESP courses .....	64
<b>Figure 3.15:</b> English Language Support Availability .....	64

## List of Abbreviations and Acronyms

AA	Algerian Arabic
A.D.	Anno Domini (After the birth of Jesus)
AP	Acquisition Planning
CA	Classical Arabic
CBI	Content-Based Instruction
CLIL	Content and Language Integrated Learning
CP	Corpus planning
EAP	English for Academic Purposes
EFL	English as a Foreign Language
EMI	English as a Medium of Instruction
ESL	English as a Second Language
ESP	English for Specific Purposes
FMI	French as a Medium of Instruction
HE	Higher Education
LP	Language Planning
LPP	Language Planning and Policy
Math and CS	Mathematics and Computer Science
MESRS	Ministry of Higher Education and Scientific Research
MOI	Medium of Instruction
MSA	Modern Standard Arabic
PP	Prestige Planning
SP	Status planning
TD	Travaux Dirigés
TP	Travaux Pratiques

# Table of Contents

<b>Dedication.....</b>	<b>I</b>
<b>Acknowledgements .....</b>	<b>II</b>
<b>Abstract .....</b>	<b>III</b>
<b>List of Tables.....</b>	<b>IV</b>
<b>List of Figure.....</b>	<b>V</b>
<b>List of Abbreviations And Acronyms .....</b>	<b>VI</b>
<b>Table of Contents.....</b>	<b>VII</b>
<b>General Introduction.....</b>	<b>2</b>
<b>Chapter One: Theoretical Framework &amp; Literature Review</b>	
1.1 Introduction.....	9
1.2 Language and Education.....	9
1.2.1 Definition of Language.....	9
1.2.2 Definition of Education .....	9
1.2.3 Relationship between Language and Education .....	10
1.3 Status of Languages in Algeria.....	11
1.3.1 Arabic Language.....	11
1.3.2 Tamazight Language .....	12
1.3.3 French Language .....	12
1.3.4 English Language .....	12
1.4 Language Planning and Policy .....	13
1.4.1 Definitions of Language Planning and Policy .....	14
1.4.2 Types of Language Planning .....	15
1.5 Language Planning and Policy in Algeria .....	17
1.6 English as the World Language.....	18
1.7 A brief synopsis of English in the Algerian Education System.....	19
1.7.1 English in pre-university in Algeria .....	19
1.7.2 English in the Algerian Higher Education.....	20
1.8 The Growing interest of English in the Algerian Universities .....	21
1.9 English as a Medium of Instruction (EMI).....	22
1.9.1 Defining EMI.....	22
1.9.2 The difference between EMI and other language teaching approaches .....	23
1.9.3 The Growth of EMI .....	25
1.10 Academic language policy shift to EMI .....	25



1.11 EMI in the Algerian Higher Education.....	26
1.12 The Benefits of Implementing EMI in HE .....	28
1.13 The Challenges of Implementing EMI in HE.....	29
1.14 Conclusion .....	30

## **Chapter Two : Methodology & Data Collection Procedures**

2.1 Introduction.....	33
2.2 Research objectives and motivations.....	33
2.3 Research Design .....	34
2.4 Research Methods.....	34
2.5 Case study.....	35
2.6 Department of Mathematics and Computer Science at University of Ain Temouchent Belhadj Bouchaib.....	36
2.7 Sample Population .....	36
2.7.1 Teacher’s profile.....	37
2.7.2 Students’ profile.....	38
2.8 Data collection Instruments .....	38
2.8.1 Online Questionnaire .....	39
2.8.2 Interview .....	41
2.8.3 Classroom Observation.....	43
2.9 Data Collection Procedures .....	44
2.10 Data Analysis Methods.....	45
2.10.1 Quantitative Analysis.....	46
2.10.2 Qualitative Analysis.....	46
2.11 Validity and Reliability.....	48
2.12 Conclusion .....	49

## **Chapter Three: Data Analysis, Suggestions & Recommendations**

3.1 Introduction.....	52
3.2 Data Analysis.....	52
3.2.1 Analysis of Students’ Questionnaire .....	52
3.2.2 Analysis of the Interviews .....	66
3.2.3 Classroom Observations Analysis .....	71
3.3 Summary of the Main Results .....	74
3.4 Some Suggestions & Pedagogical Recommendations .....	76
3.4.1 Outside the Classroom.....	76
3.4.2 Inside the classroom .....	79

3.5 Limitations of the study .....	80
3.6 Conclusion .....	81
<b>General Conclusion .....</b>	<b>82</b>
<b>References.....</b>	<b>86</b>
<b>Appendices .....</b>	<b>93</b>

# **General Introduction**

## General Introduction

---

The global dominance of English is undeniable. Competency in this language is increasingly viewed as indispensable for achieving success across numerous fields and professions, as it is widely recognized as the language of science, technology, and international communication. Therefore, the increasing adoption of English as the medium of instruction (EMI) in non-native English-speaking countries generates great interest among language researchers and policymakers, despite the challenges and constraints of its implementation. This heightened interest stems from the multifaceted benefits EMI offers in higher education (HE), including access to broader educational resources, fostering global collaboration and communication, and ultimately, supporting career advancement.

Since 2019, the Algerian Ministry of Higher Education and Scientific Research (MESRS) had initiated a project to promote English in the teaching curriculum, replacing French. In 2023, the Algerian authorities have implemented this transition to English, starting from September of the academic year 2023-2024. The preceding year marked the introduction of English as the second foreign language in early education, particularly in 3<sup>rd</sup> year primary schools. These decisions aim to improve the quality of education, enhance Algeria's global competitiveness, and reduce reliance on France.

This recent shift from one language of instruction to another in the Algerian tertiary education is a central focus of this study, as it necessitates significant investment in teacher training, curriculum development, and educational materials at the university and pre-university levels. It is also critical to address the concerns of students and teachers who may be hesitant to embrace this change, as this shift has the potential to reshape the academic landscape, affecting the country's international education competitiveness and cultural-linguistic identity.

The researcher's motivation and curiosity stem from students' recurrent struggles with the previous language of instruction, especially in their first year of tertiary education in

## General Introduction

---

scientific fields, and their tendency to use their native dialect in class. This emphasizes the critical role language proficiency plays in academic performance.

This research lies within the field of applied linguistics, with a specific focus on language planning and policy. The general aim of this study is to investigate the effects of the language policy shift in the Algerian HE, particularly the use of English as the main means of instruction in the Algerian universities instead of French. To achieve this overarching aim, the study pursues the following specific aims:

1. To examine the challenges and opportunities arising from the adoption of EMI in Algerian tertiary education.
2. To investigate the perspectives of teachers and students regarding this language policy shift.
3. To ensure the proper use of EMI for both teachers and students.
4. To explore the implications of this language policy change on language acquisition planning at pre-university levels (primary school, middle school, and secondary school).
5. To present viable solutions for overcoming the challenges resulting from this language policy shift.

The introduction of EMI in Algerian tertiary education raises several critical questions and concerns. For many years, the Algerian university teachers and educators have used French to teach various subjects such as science, technology, medicine, chemistry, engineering, and economics as the result of the country's 132-year colonization by France, which has left profound linguistic and cultural impact on Algerians due to the historical contact. In pre-university education, students study with Modern Standard Arabic (MSA) as

## General Introduction

---

the medium and English as a subject, regarded as the second foreign language. The transition from teaching English as a foreign language (EFL) to using English as the medium of instruction (EMI) for academic subjects in the Algerian universities will significantly impact students, educators, and the entire education system. This shift presents a multifaceted challenge as it affects both students and educators in various ways, necessitating an in-depth exploration of the associated difficulties, opportunities, and potential solutions. The problematic revolves around investigating the specific challenges students and teachers face with the language transition and exploring potential solutions and strategies to facilitate successful adaptation to English as the medium of instruction. In light of this problematic, the following research questions are raised:

- 1) What are the challenges encountered by students and teachers of mathematics and computer science as they adapt to English as the medium of instruction at the Algerian university level?
- 2) What effective strategies can be implemented to address the challenges posed by this language policy shift and maximize the opportunities for successful adaptation to English-medium instruction?

Based on the research question, the study presents the following hypotheses:

- 1) The shift to English-medium instruction in the Algerian university level may pose challenges for both students and teachers in terms of limited English language proficiency and a lack of training in teaching in English language.
- 2) Implementing effective strategies, including adopting a translanguaging approach and technological tools in class, can help address language-related challenges and facilitate a smoother transition to English-medium instruction.

## General Introduction

---

To address these research questions and test the hypotheses, a case study is conducted at the Department of Mathematics and Computer Science, University of Ain Temouchent Belhadj Bouchaib. This study will employ a mixed-methods research approach. The primary research instruments include questionnaires for the students, interviews with teachers, and classroom observations, providing valuable insights into the experiences and practices of educators and students adapting to the new language of instruction. This case study aims to shed light on the challenges students and teachers face shifting to English-medium instruction at the Algerian universities, aiming to deepen understanding for adaptation, address challenges, and optimize opportunities. Findings may contribute to improving educational outcomes, facilitating policy adjustments, and supporting the transition for institutions adopting English as the primary language of instruction. The selection of the University of Ain Temouchent Belhadj Bouchaib as the research site is primarily based on the researcher's affiliation with this institution as a student. This choice provides the advantage of easy access to resources, data, and participants. The sample comprises first-year Computer Science students at the Department of Mathematics and Computer Science, given their direct relevance as the initial promotion experiencing the academic language policy shift. This choice affords valuable insights into their immediate challenges, the process of adjustment to the new language of instruction, and the potential long-term impacts on their academic performance and language proficiency, as well as their future careers.

Regarding the structure and organization of this research work, it consists of three chapters. The first chapter covers the theoretical aspects of the research work. It focuses on a related literature review about the various benefits and challenges of implementing EMI in HE. It also reviews key concepts upon which the research is based: language and education, language planning and policy, academic language policy shift, and English in the Algerian education, in order to facilitate readers' comprehension of the subject matter and provide a

## General Introduction

---

broad overview of the research topic. The second chapter concerns the practical side of the research work. It outlines the methodological approach. It aims to represent the department of Mathematics and Computer Science at the University of Ain Temouchent Belhadj Bouchaib and describes the target population and data collection instruments. The last chapter entails the analysis, discussion, and interpretation of the obtained data and research findings that were collected through questionnaires, interviews, and classroom observations. It seeks to either confirm or disprove the hypotheses formulated in this study. It also provides suggestions and recommendations for enhancing language proficiency and mitigating challenges associated with this language policy shift. The chapter ends by discussing the limitations of the research work.



**Chapter One**  
**Theoretical Framework**  
**& Literature Review**

## Chapter One: Theoretical Framework & Literature Review

1.1	Introduction.....	9
1.2	Language and Education.....	9
1.2.1	Definition of Language.....	9
1.2.2	Definition of Education .....	9
1.2.3	Relationship between Language and Education .....	10
1.3	Status of Languages in Algeria.....	11
1.3.1	Arabic Language.....	11
1.3.2	Tamazight Language .....	12
1.3.3	French Language .....	12
1.3.4	English Language .....	12
1.4	Language Planning and Policy .....	13
1.4.1	Definitions of Language Planning and Policy .....	14
1.4.2	Types of Language Planning .....	15
1.5	Language Planning and Policy in Algeria .....	17
1.6	English as the World Language.....	18
1.7	A brief synopsis of English in the Algerian Education System.....	19
1.7.1	English in pre-university in Algeria .....	19
1.7.2	English in the Algerian Higher Education.....	20
1.8	The Growing interest of English in the Algerian Universities .....	21
1.9	English as Medium of Instruction (EMI).....	22
1.9.1	Defining EMI.....	22
1.9.2	The difference between EMI and other language teaching approaches .....	23
1.9.3	The Growth of EMI .....	25
1.10	Academic language policy shift to EMI5 .....	25
1.11	EMI in the Algerian Higher Education.....	26
1.12	The Benefits of Implementing EMI in HE .....	28
1.13	The Challenges of Implementing EMI in HE.....	29
1.14	Conclusion .....	30

# **Chapter One: Theoretical Framework & Literature Review**

---

## **1.1 Introduction**

This chapter explores fundamental theoretical concepts in applied linguistics relevant to this research. It delves into the relationship between language and education, language planning and policy, and English as a medium of instruction (EMI). To fully understand these aspects in the Algerian context, it is necessary to examine the sociolinguistic situation in Algeria and its language planning, given the country's diverse linguistic landscape. Moreover, this chapter synthesizes literature on the growth of EMI, the challenges and opportunities associated with implementing EMI in HE universities worldwide.

## **1.2 Language and Education**

The relationship between language and education is fundamental and multifaceted. The following sections explore their definitions and the vital connections between these two essential aspects of human development.

### **1.2.1 Definition of Language**

Language is a sophisticated and intricate natural phenomenon that distinguishes humans from other creatures. It is a complex system of communication that involves the use of symbols, sounds, gestures, or written characters to convey meaning. As a significant linguistic tool, language serves as a means for expressing thoughts, emotions, and ideas and transmitting information within a community or between individuals. Language is also regarded as an innate capacity human possess from birth. Given that language is such a multifaceted phenomenon, viewing it solely through a communicative lens is too simplistic. Language has been defined, approached, and discussed in diverse ways across numerous perspectives, considering its cognitive, communicative, social, and cultural dimensions.

### **1.2.2 Definition of Education**

The word education traces back to Latin roots; it derives from the Latin root "educāre", which means to raise, nourish, and bring up. According to other etymologists, the word

## **Chapter One: Theoretical Framework & Literature Review**

---

education comes from the Latin term “educere” meaning to lead out or draw out, and the term “educatum”, which refers to the act of teaching and training. Accordingly, as Cremin (1976, p. 27) asserts: “Education is the deliberate, systematic, and sustained effort to transmit, provoke or acquire knowledge, values, attitudes, skills or sensibilities as well as any learning that results from the effort”. Therefore, education is a lifelong process that begins from the cradle to the grave. Education is a vital and fundamental human value, as its purpose is to develop individuals’ knowledge, skills, and character. Simultaneously, it serves as a societal necessity, which plays a crucial role in the integration of entities and in driving national prosperity through the exploration of enduring values that give significance to life.

### **1.2.3 Relationship between Language and Education**

There is a profound connection between language and education. The relationship between these two concepts is intricately intertwined, with one shaping and influencing the other. Dube and Ncube (2013, p. 250) elucidate this connection as: “Education and language are dependent on each other. If education is to be attained, language has to be used and for language to endure, survive and be respected, it has to be taught in schools”. In other words, language is the tool through which education is delivered, while education, in turn, shapes the development and language use. This perspective emphasizes a symbiotic relationship, highlighting that language and education are interdependent and that both are essential for each other's survival and respect. According to Wolff (2006, p. 50): “language is not everything in education, but without language, everything is nothing in education”. Despite language not being the only factor in education, it plays a fundamental role in the educational process, without which effective transmission and exchange of information cannot occur.

Language plays a vital role in accessing information and acquiring knowledge. The choice of language in education is pivotal for learners’ academic performance. Hence, nations where native languages are not the languages of education have implemented

## **Chapter One: Theoretical Framework & Literature Review**

---

language policies to address communication problems in their educational systems. Proficiency in language, therefore, contributes significantly to achieving better educational and academic success.

### **1.3 Status of Languages in Algeria**

Algeria is a bilingual country characterized by a varied and complex linguistic situation. Several languages and varieties, including Arabic, French, Tamazight, and English, are used, each associated with distinct social, cultural, and political perspectives. This linguistic diversity is rooted in Algeria's complex history and geographical location, as the country has experienced different invasions and foreign contacts. Regarding the linguistic community, Algerians demonstrate diglossia, bilingualism, and multilingualism. The three predominant languages are Arabic, French, and Tamazight.

#### **1.3.1 Arabic Language**

Arabic is a Semitic language that holds prominent status, as it is the language of the Holy Quran as well as the language of science and Islamic culture. Since the 8th century A.D., Arabic has found its way into the Algerian territory following the arrival of Islam (Guemide, 2023). Arabic is spoken by the majority of Algerians. It has varieties that can be categorized into three forms in the country: classical Arabic (CA), modern standard Arabic (MSA), and Algerian Arabic (AA). Each form has a distinct function and setting. CA, also known as Quranic Arabic, is primarily employed for literature, poetry, religious books, and religious purposes. MSA is rooted in CA. It serves as the national and official language of Algeria, and it is used in education and formal official settings. Despite its prevalence, it is not considered the mother tongue for many Algerians. AA, also known as Darija and recognized as a dialectal form of Arabic, is the mother tongue for the majority of Algerians. It has its foundation in both CA and MSA, influenced by a mix of French and Amazigh

## **Chapter One: Theoretical Framework & Literature Review**

---

vocabulary (Azzouz & Khayen, 2014). It is mainly used for informal settings and everyday communications.

### **1.3.2 Tamazight Language**

The Tamazight or Amazigh language, rooted in North Africa, belongs to the Afro-Asiatic language phylum. In Algeria, it was given the status of a national language in 2002 and attained official language status in 2016. This followed prolonged uprisings, protests, and demands from the Amazigh population, particularly in the Kabylie region (Aitsiselmi, 2012; Daoudi, 2018). Despite this language gaining native and official status in Algeria, unlike AA, it is spoken by a minority of Algerians.

### **1.3.3 French Language**

French has neither national nor official status in Algeria, yet it stands as the most widely spoken foreign language in the country. The use of French can be traced back to the extended historical period of colonization lasting for 132 years (1830–1962), during which the French language has had a great linguistic and cultural impact on Algerians, given that the French colonizers imposed their language on Algerians. Despite lacking official status, French finds common usage among the elites and the educated, particularly those in the middle- and upper-class echelons of the Algerian society (Azzouz & Khayen, 2014). Its historical presence is evident in the administration and education sectors, where French was widely used before the implementation of Arabization policies by the Algerian policymakers. Even after the post-colonial era, French continued to maintain a prominent role in the Algerian linguistic scene.

### **1.3.4 English Language**

After French, English holds the position of the second foreign language in Algeria. English started to gain prominence within the Algerian society. Mami (2013, p. 912) mentions that: “as a matter of fact, English has been defined as a second foreign language at

## **Chapter One: Theoretical Framework & Literature Review**

---

the beginning of the 1990s and as a first foreign language after the 2000 reform to gain the status of the language of science and technology used in lifelong learning in recent years". However, in comparison to French, which has had significant linguistic and cultural impacts on Algerians due to historical contact, English, as an international language, has been introduced in Algeria without any historical ties to the Anglo-Saxon world (Benrabah, 2013, p. 186). The spread of the English language in Algeria occurred in stages.

As outlined by Belmihoub (2018), during the mid-20th century until the 1970s, Algeria relied on French textbooks to teach English. However, in 1975, the country produced its first English-language textbook. By the early 1980s, English began to gain traction in Algeria, driven by Algerians increasing participation in overseas training programs and technology exchanges. Organizations recognized the necessity of English proficiency and initiated language training initiatives to enhance communication with global counterparts (*ibid.*, p. 4). In the early 2000s, English witnessed notable prominence in Algeria, partly due to enhanced diplomatic relations between Algeria and the United States following Bouteflika's election as President in 1999. As a result, the Algerian students benefited from numerous scholarships provided by the British and US governments. English is increasingly gaining prominent status in Algeria, with people of all ages striving to learn this global language due to its relevance in nearly all fields of life.

### **1.4 Language Planning and Policy**

The terms language planning and language policy represent two distinct yet interconnected concepts. These terms have often been used interchangeably by many language planners when referring to decisions and activities related to matters such as linguistic diversity, language development, and language in education. However, according to Cooper (1989), Schiffman (1996), and Kaplan and Baldauf (2003), language policy and language planning are two distinct concepts with specific roles: language policy involves

## Chapter One: Theoretical Framework & Literature Review

---

decision-making and goal-setting, while language planning focuses on implementing policies to achieve desired outcomes.

### 1.4.1 Definitions of Language Planning and Policy

The term language planning (LP) first emerged in the early 1950s by the linguist Uriel Weinreich in New York, who studied immigrant languages and dialects in contact with English (Lo Bianco, 2010). The Norwegian-American Einar Haugen (1959) expanded the meaning of LP to refer to the deliberate efforts to develop a new standard national language in Norway following independence from Denmark in 1814. He defines LP in the following terms:

[By language planning, I understand] the activity of preparing a normative orthography, grammar and dictionary for the guidance of writers and speakers in a non-homogeneous speech community. In this practical application of linguistic knowledge we are proceeding beyond descriptive linguistics into an area where judgment must be exercised in the form of choices among available linguistic forms.

(Haugen, 1959, p.8).

He regarded, at first, the creation of orthography, grammar, and dictionaries as the actual activities of LP. However, later, he recognized these tasks as language planning outcomes, part of the decisions implemented by language planners (Haugen, 1966a, p. 52).

Many definitions are put forward for the term LP. Fishman a prominent sociolinguist, describes it as “the organized pursuit of solutions to language problems, typically at the national level” (1974, p. 79). In this vein, Waurdaugh (1992, p. 346) states: “Language planning is a government authorized, long term sustained and conscious effort to offer language functions in a society for the purpose of solving communication”. LP encompasses a deliberate effort to influence the function, structure, or acquisition of a language or



## **Chapter One: Theoretical Framework & Literature Review**

---

language variety within a particular community, which aims to address language-related challenges and solve linguistic problems. As put forward by Ricento (2006, p. 11): “after all, language planning is not just an exercise in philosophical inquiry; it is interested in addressing social problems which often involve language, to one degree or another, and in proposing realistic remedies”. Certainly, effective language planning across educational, economic, political, and cultural domains can result in positive outcomes that improve quality of life.

Language policy refers to the official rules, regulations, planning, and promotion of language use by governments or other authoritative bodies. Expanding on this, McGroarty (1997, p. 1) asserts that: “Language policy can be defined as the combination of official decisions and prevailing public practices related to language education and use”. Aligning with this, Kaplan and Baldauf (1997, p.xi) similarly state that language policy can be defined as: “A body of ideas, laws, regulations, rules and practices intended to achieve the planned language change in the society, group or system”. Therefore, Language policy is not just about rules, but also about driving purposeful change in how language is used and perceived in society.

### **1.4.2 Types of Language Planning**

LP is generally divided into four types: Status planning (SP), Corpus planning (CP), Acquisition Planning (AP), and Prestige Planning (PP). These activities and approaches are often intertwined.

#### **1.4.2.1 Status Planning**

SP refers to the processes of selecting and using languages or language varieties in various public functions, including government, the legal system, administration, the media, and the educational system. It entails recognizing the importance and position of a language within a speech community, often referred to as language allocation. Hoffmann (1991, p.

## **Chapter One: Theoretical Framework & Literature Review**

---

207) defines SP as “...concerns decision-making processes regarding the status and function of particular languages or varieties, as well as the allocation of state resources”. These decisions, primarily made by governments and reinforced with state support, are shaped more by politics than by linguists.

### **1.4.2.2 Corpus Planning**

CP, in contrast, is a purely linguistic activity that deals with the internal systems of language. Following status planning decisions selecting particular languages for official functions, the responsibility shifts to appointed linguists, who spread the adoption and propagation of the chosen language(s) across institutions and society more broadly. Thus, CP focuses on developing the form and reshaping the structure of the language code. This process includes introducing new words to fill gaps in the language, publishing specialized technical dictionaries, grammar guides, and literary works.

### **1.4.2.3 Acquisition Planning**

While SP aims to expand the functions of a language, AP focuses instead on increasing the number of language users. As Wright (2004) defines it: “the term generally employed to describe the policies and strategies introduced to bring citizens to competence in the languages designated as ‘national’, ‘official’ or ‘medium of education’” (p. 69). Spolsky (2004) identified a range of potential areas where AP could be implemented, including the media, workplace, organizations, religious institutions, and educational settings. AP, also known as “Language Education Policy”, involves decisions about how to teach and use languages. This approach has gained prominence, particularly in educational contexts where language learning is emphasized. As Hoffman (1991, p. 214) highlights: “the education system is by far the most important tool for implementing a government’s language planning policy”. This underscores the critical role that educational institutions play in shaping and promoting language policies within a country.

## **Chapter One: Theoretical Framework & Literature Review**

---

### **1.4.2.4 Prestige Planning**

PP involves efforts to promote the status, prestige, and perceived value of a language or language variety within a specific community. Unlike CP and SP, which are productive activities, PP is more about reception or value (Haarmann, 1990). These activities aim to cultivate positive attitudes, feelings, and elevate the status and importance of the language.

### **1.5 Language Planning and Policy in Algeria**

Language planning and policy are of paramount importance in multilingual communities. They play a crucial role in managing linguistic diversity, promoting national unity, and determining which languages are to be used for various societal domains. The linguistic landscape of Algeria presents an interesting case for researchers to investigate language planning and policy.

Following independence from French colonialism in 1962, the decisions regarding which language should be used as the official national language and what language as the medium in the educational system were central debates, Berger (2002, p. 8) identifies the language situation as “the most severe problem of Algeria in its present and troubled state”. Djitè (1992, p. 21) extends this viewpoint, maintaining that “nowhere else in Africa has the language issue been so central in the fight against colonialism [as in Algeria]”. After 132 years of colonialism, Algeria implemented an Arabization policy in 1962, transitioning from the French language imposed during the occupation to Arabic. The purpose behind this policy shift was to promote the Arabic language, erase French dominance and linguistic presence, retain Islamic cultural identity, and foster linguistic unity within the speech community. In 1963, a leading Algerian poet and writer, David Gordon predicted: “In ten to fifteen years..., Arabic will have replaced French completely and English will be on its way to replacing French as a second language. French is a clear and beautiful language, ... but it holds too many bitter memories for us” (Gordon 1966, p. 113).

## **Chapter One: Theoretical Framework & Literature Review**

---

The status of French language instruction has changed considerably, from being the medium of instruction (MOI) taught in the first year of primary school during the colonial period to a foreign language after independence, taught in the third year (Marouf, 2017). However, French, which is considered a colonial heritage, still maintains a privileged status and has a great impact on Algeria. Thus, the structure of the Algerian educational system was influenced by the Napoleonic system (MERIC-Net, 2019).

### **1.6 English as the World Language**

Nowadays, English is enjoying its status as not merely an international language but the dominant global language. English is now a world language; it is spoken by around 1.5 billion people throughout the world as their first language, second language, and foreign language. It is also commonly acknowledged as the current world's lingua franca, as it is used across the world by people of different native languages to interact.

Unlike any language before it, the global spread and use of the English language are unprecedented. Ferguson (1982) claimed that no single language had ever spread as a lingua franca across the world in the way English had done in this century. This phenomenal global spread of English had its roots in the power and influence of its native speaking countries. It is often traced to British colonialism in the 19th century and later expanded by the dominance of the United States in the 20th century.

English is also considered the language of science and technology, economics, and politics due to its widespread use in these fields. It dominates as the most prevalent language used in scientific writing and research. English-language scholarly publications such as books magazines, and newspapers can be found in numerous countries globally, as it is preferred by the majority of researchers.

This widespread use of English enables individuals from diverse geographical and cultural backgrounds to connect, communicate, collaborate effectively and innovatively, as

## **Chapter One: Theoretical Framework & Literature Review**

---

well as facilitate international interaction such as economic relationships among countries, international business relationships, global trade, and others.

It is important to consider the impact of English as a global language on many other languages, which causes language shift and even language death and leads to claims of linguistic imperialism. Indeed, the emphasis on teaching English has increasingly become a universal demand, which gives rise to new pedagogical approaches for teaching English to non-native speakers, which include teaching English as a Second Language (ESL), English as a Foreign Language (EFL), and English as a Medium of Instruction (EMI) in academic contexts.

### **1.7 A brief synopsis of English in the Algerian Education System**

Several changes have affected the status of English within the Algerian educational system, due to the country's political, economic, and social situation. Before and after independence, the teaching of English as a subject underwent several reforms.

#### **1.7.1 English in pre-university in Algeria**

In the French colonial era, English held status as the first foreign language, starting from the 1<sup>st</sup> grade of middle school until the 3<sup>rd</sup> grade of secondary school. In the initial years following independence from France (1962), English remained taught as the first foreign language but was moved from the first to the third grade of middle school. Years later, English became the second foreign language behind French, taught for a total of 5 years, from 2<sup>nd</sup> grade in middle school until 3<sup>rd</sup> grade in secondary school (Marouf, 2017). Currently, English is taught as a compulsory second foreign language in middle schools, starting from 1<sup>st</sup> grade until the 3<sup>rd</sup> grade of secondary school, which covers 7 years of learning. With the latest educational reforms, English has also been introduced at the primary level, implemented in the 3<sup>rd</sup> grade from the beginning of the 2022–2023 academic year. The following table summarizes this reform:

## Chapter One: Theoretical Framework & Literature Review

**Table 1.1: The updated structure for English Language Teaching in Algeria**

<b>Primary Cycle (5 years)</b> Age 6 to 10	<b>Middle Cycle (4 years)</b> Age 11 to 14	<b>Secondary Cycle (3 years)</b> Age 15 to 18
From 3 <sup>rd</sup> grade to 5 <sup>th</sup> grade	1 <sup>st</sup> grade to 4 <sup>th</sup> grade	1 <sup>st</sup> to 3 <sup>rd</sup> grade

### **1.7.2 English in the Algerian Higher Education**

At the tertiary education level, English is offered either as a major in the English department, where students must take courses in linguistics, phonetics, grammar, literature, civilization, oral expression, written expression, and didactics. Alternatively, it is offered as an additional module often entitled English for Specific Purposes (ESP) in other departments, mainly in scientific fields like science and technology, biology, mathematics and computer science, as well as engineering. This ESP module is typically taught over a single semester, for one and a half hours per week, with a low coefficient of one. Students take English courses based on their specialty and their needs.

Regardless of the implementation of the Arabization policy, French retained prominence as the MOI in HE, especially across significant domains such as medical, scientific, and technical fields. Only a few branches, including law, humanities, social sciences, and Islamic studies, have aligned with the policy implemented and use MSA as the official MOI. Algeria's education system provides Arabic instruction from primary to secondary school, producing Arabophone students. Roux (2017) notes that the Algerian academic and poet Inam Bioud criticized the ongoing widespread use of English and French in universities across the Arab world. Bioud asserted that students taught in Arabic in primary and secondary school faced a “linguistic shock” upon entering university, where they suddenly had to study in a foreign language for which they were not properly equipped to handle the transition.

## **Chapter One: Theoretical Framework & Literature Review**

---

Starting in the 2023–2024 academic year, Algerian universities have switched to using English instead of French as the medium of instruction (FMI), which represents a major language policy shift in Algerian HE. This academic language policy shift is particularly noteworthy, considering that HE is regarded as a crucial sector that serves to prepare individuals for future professional roles across all fields, ultimately making it a vital contributor to society.

### **1.8 The Growing interest of English in Algerian Universities**

In recent years, particularly since 2019, the debates centered on the potential implementation of EMI at the Algerian university level have gained increasing attention and interest. In fact, the shift from French to English as the first foreign language was one of the demands raised during the Hirak movement (Guemide, 2023).

On July 5th, 2019, the former Minister of MESRS, Tayeb Bouzid, initiated an online survey published on the Ministry website and his Facebook page, which was intended to gather public opinion on increasing the prominence of English in Algeria. The results of the survey indicated that more than 90% of Algerians supported strengthening the status of English in Algerian universities (see Appendix 1).

On July 21st, a ministerial order was issued to all Algerian universities, mandating the use of both English and Arabic in the headings of official documents (see Appendix 2). This was followed by a national forum that took place on August 1st to address the status of English in universities across Algeria. After the national forum held on August 18th, universities were requested to appoint six experts in linguistics and the English language to propose a blueprint to strengthen the status of English in Algerian universities (see Appendix 3).

On October 18th, the minister posted an online survey via Google Forms to gather further recommendations and viewpoints on boosting the status of English in Algerian

## **Chapter One: Theoretical Framework & Literature Review**

---

universities (see Appendix 4). The survey findings were published on November 7th, along with the names of the committee appointed to create a blueprint for enhancing the status of English across the Algerian universities (see Appendix 5). The final report was published on December 17th, outlining plans to begin improving English in the Algerian universities through diverse initiatives aimed at providing English instruction to all Algerian university students (see Appendix 6).

### **1.9 English as a Medium of Instruction (EMI)**

#### **1.9.1 Defining EMI**

EMI has gained significant prominence in recent years in many countries around the world. A widely referenced definition of EMI comes from the EMI Oxford team, The Centre for Research and Development in English Medium Instruction, by Dearden (2015). Macaro et al. (2018) define it in these words: “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. 37). This definition indicates that EMI involves the use of English as the primary language for teaching and learning academic subjects, such as mathematics, science, and engineering, rather than using the local or national language. This indicates that the EMI practice takes place where English is not the first language for most of the population. Additionally, the definition underlines the formal nature of EMI that occurs in educational settings.

EMI definitions vary depending on the context in which it is implemented. Some scholars contend that EMI encompasses both Anglophone contexts, where English is the native language in the state, as well as non-Anglophone environments, where English is a second and foreign language.

There is a diversity of terminologies used by scholars and researchers to label EMI (Macaro, 2018). According to Briggs, Dearden, and Macaro (2018), the most common labels



## **Chapter One: Theoretical Framework & Literature Review**

---

include: English medium instruction, English medium of instruction, English as a medium of instruction, English-medium education, and English as the lingua franca medium of instruction. Regardless of the range of terms employed, the acronym EMI tends to be adopted as a broad umbrella to encompass all these various labels (Briggs et al., 2018).

### **1.9.2 The difference between EMI and other language teaching approaches**

Despite potential overlapping areas and shared characteristics in certain contexts, EMI is a distinct concept from approaches used in language education, such as English as a Foreign Language (EFL), English for Specific Purposes (ESP), Content-Based Instruction (CBI), and Content and Language Integrated Learning (CLIL).

EFL can be defined as the study of English by individuals living in places where English is not the primary language used for communication. Hence, EFL focuses on language acquisition for general communication purposes.

ESP focuses on teaching English language skills in the context of a specific professional or academic field, like business English or academic English for STEM fields (Science, Technology, Engineering, and Mathematics). It is more specialized, targeting the development of language skills relevant to a particular domain of study or work.

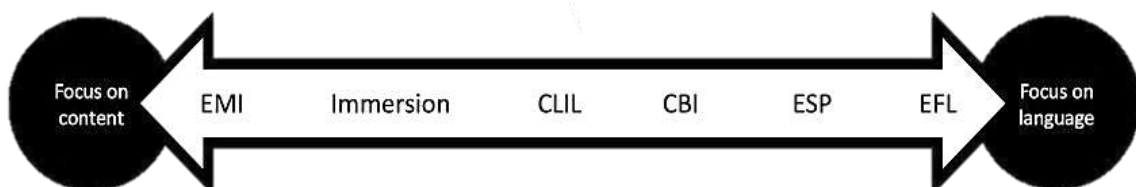
CBI is defined as “an integrated approach to language instruction, drawing topics, texts, and tasks from content or subject matter classes, but focusing on cognitive, academic language skills” (Crandall & Tucker, 1990, p. 83). The overarching objective of CBI is language proficiency, while academic content serves primarily as a medium through which language learning occurs. Stoller (2002b, p. 1) states that content often serves “simply as a shell for language teaching”. As a result, content learning is often marginalized, as language skill development remains the central focus. The academic content is primarily a means to facilitate language acquisition rather than focusing on mastery of the subject matter itself.

## Chapter One: Theoretical Framework & Literature Review

CLIL involves using a different language to teach both subject matter and language skills, with the aim of developing proficiency in both content and language simultaneously. As Marsh (2008, p. 1986) highlights: “Diverse methodologies are used that lead to dual-focused education where attention is given to both topic and language”. This dual objective distinguishes CLIL from other approaches. CLIL seeks to equip learners with mastery over academic concepts as well as linguistic competence in the target language. It integrates content and language learning through a dual-focused educational technique.

EMI refers to the use of English to teach academic subjects. Dearden and Macaro (2016, p. 456) describe it as “an umbrella term for academic subjects taught through English, one making no direct reference to the aim of improving students’ English”. In EMI, the focus is on using English as the medium to deliver content without explicit language learning objectives (Unterberger & Wilhelmer, 2011, p. 96). Developing English proficiency is often not an intended educational goal in EMI programs. Rather, English serves solely as the vehicular language to teach academic subjects, not to improve language skills. In conclusion, EMI applies English as the language of instruction to teach content but does not encompass language learning aims.

The following continuum highlights the distinct nature of EMI, distinguishing it from the approaches discussed previously.



**Figure 1.1: Continuum of EMI in practice (adapted from: Thompson & McKinley, 2018) cited in Rose et al. (2020)**

### **1.9.3 The Growth of EMI**

As English has become the dominant global language, proficiency in this language is now regarded as vital for success across countless fields and professions. Consequently, EMI in HE has rapidly grown into a major worldwide phenomenon (Macaro, Curle, Pun, An, & Dearden, 2018, p. 48). David Graddol (1997) asserted that “One of the most significant educational trends world-wide is the teaching of a growing number of courses in universities through the medium of English.” (p. 45). This expansion of EMI has been described as an ‘unstoppable train’ (Macaro, 2015, p. 7).

EMI programs have expanded significantly in global HE over the past two decades, since the late 1990s. For example, in Europe, the number of bachelor’s and master’s degrees taught fully in English rose over 10 times from 725 to 8,089 between 2001 and 2014 (Wächter & Maiworm, 2014). Similarly, in Japan, over one-third of universities now offer EMI programs, and the number continues to grow (MEXT, 2015).

Studies on EMI programs globally have determined that the primary motivation for adopting EMI is internationalization and increasing foreign student enrollment rather than improving language learning, which remains a secondary goal (Ammon & McConnell, 2002; Smit & Dafouz, 2012). Attracting more overseas students is seen as a pathway for universities to elevate their profile, augment financial income, and improve rankings, as well as increase international competence among domestic students.

### **1.10 Academic language policy shift to EMI**

A noticeable, rapid global shift is taking place, particularly in non-Anglophone countries, from English as a foreign language to using English as primary medium of instruction at the tertiary level for academic subjects. This shift in the language of instruction signifies that English has moved from being merely taught as a foreign language to becoming

## **Chapter One: Theoretical Framework & Literature Review**

---

an essential tool in education, where non-language-related academic subjects such as science, mathematics, and engineering are taught and learned through English.

### **1.11 EMI in the Algerian Higher Education**

Algeria is one of the countries that has recently officially implemented English as the primary MOI in all universities throughout the country, starting in the academic year 2023-2024. This change applies to all specialties except for medical fields like medicine, which continue to be taught in French. This transition is affecting students beginning in their first year of undergraduate studies.

Therefore, to improve the English language proficiency of new secondary school graduates, and better equip them for the language transition as they pursue their HE studies in English, the MESRS has made an online platform for video lessons available to them from July 20th to September 20th, 2023, to help them reach the B2 level. To access this platform, they must go to the provided link and log in using the registration number and password included in their secondary school transcript.

It is worth noting that Algeria already had three universities that offer programs through EMI. The first, established in 1976, is the Institute of Electrical and Electronic Engineering, located in Boumerdes province. The other two, the National School of Artificial Intelligence and the National School of Mathematics, both located in the capital Algiers and established in 2021 (U.S. Embassy Algiers, 2021), offer courses taught in both English and French.

Research specifically examining EMI in the Algerian universities is quite limited. While there is a substantial body of research examining language attitudes in the Algerian HE, including Bouhmama and Dendane (2018) and Hamzaoui (2021) studies showing Algerian students' desire for English to replace French in teaching scientific subjects, these works have helped shape our understanding of attitudes towards languages, particularly

## **Chapter One: Theoretical Framework & Literature Review**

---

English. However, original empirical investigations directly exploring the implementation and effects of EMI programs within Algerian tertiary institutions are rare.

One of the prominent studies conducted by Medfouni (2020) explored the potential implementation of EMI in scientific courses at Algerian universities. The study surveyed students and teachers at three public universities who used French as the primary language of instruction. The findings revealed positive attitudes among both groups towards transitioning some courses to EMI instead of FMI. This work sheds light on important issues related to language policies and pedagogy within a monolingual instructional model in the Algerian context. However, Medfouni's study only addressed the potential implementation of EMI and investigated stakeholders' attitudes rather than actual classroom experiences using English.

Another significant recent study by Saidani and Afkir (2023) at the Institute of Electric and Electronic Engineering in Boumerdes, Algeria, investigated undergraduate engineering students' attitudes towards EMI programs. This institution was regarded as the first to adopt English instruction for teaching subject content back in 1976. The study indicated that students had mixed attitudes towards the use of Arabic and trilingual practices in EMI classes; half of the students favored retaining monolingual English instruction. Students reported improvement in their English skills (speaking, writing, listening, and reading) as well as their content knowledge after taking EMI courses. Primary difficulties centered around the instructor's accent and English mastery, though lecture comprehension was generally not an issue. Nevertheless, as this investigation was limited to one institute preceding 2023–2024 national EMI adoption decision, further research will be key to gauging and examining wider EMI experiences across the Algerian universities.

This research seeks to address gaps by investigating the academic language policy shift from FMI to EMI in the Algerian tertiary education, where EMI has now been formally

## **Chapter One: Theoretical Framework & Literature Review**

---

implemented across universities and institutions in Algeria starting from the academic year 2023-2024. Specifically, it examines the EMI status by exploring students and teachers' performance and perspectives in EMI classrooms at the University of Ain Temouchent Belhadj Bouchaib. By investigating classroom experiences, it aims to better identify the opportunities and challenges of teaching content courses in English.

### **1.12 The Benefits of Implementing EMI in HE**

The adoption of English as the primary language for teaching and learning in HE institutions and universities offers numerous advantages. Thus, it is viewed as an essential and unavoidable path demanding policymakers' attention worldwide.

It is undeniable that a significant portion of academic research, scientific journals, and educational resources are published in English. Implementing EMI empowers students across various disciplines to access and engage with a broader range of scholarly materials, thereby broadening their research. Additionally, the EMI environment provides a dual advantage for non-native English students, enabling them to attain mastery in their chosen academic field while simultaneously and unintentionally developing English language proficiency, which consequently elevates their career opportunities and employability in an increasingly globalized job market.

Moreover, EMI can attract more international students, thereby raising the university's global rankings and prestige. It can facilitate exchange programs between universities where learners do not face linguistic barriers, fostering greater academic collaboration across borders.

Tayeb Bouzid, the former Algerian minister of MESRS, recognized the significance that English could play at the tertiary level. During an interview in 2019, he asserted that by incorporating English into HE, the degrees earned by the Algerian students would gain increased recognition and visibility internationally. (El Bilad TV, 2019).

### **1.13 The Challenges of Implementing EMI in HE**

While the use of EMI in HE opens up many opportunities, its implementation also poses challenges. In recent years, various studies have examined the difficulties of using English to teach content subjects in tertiary education, as this shift affects teachers, students, and administrators rather than just simply replacing the existing language of instruction. In his analysis of EMI policies in South Korean HE, Williams (2015) contends that the rapid pace of implementation for internationalization purposes, without necessary academic support, has posed more learning challenges than advantages for students and instructors.

A study by Anne (2012) in Rwanda underscored various issues students faced when the language of instruction shifted from French to English at the university, including comprehension difficulties, classroom participation challenges, ineffective learning strategies, anxiety, and a lack of academic literacy skills. Another study conducted by Al Zumor (2019) in Saudi Arabia examined EMI and identified several similar challenges. In addition, that most students reported that EMI caused feelings of anxiety, frustration, tension, fear, and embarrassment, leading to demotivation, students tended to rely heavily on rote memorization of translated summaries rather than properly engaging with course material presented in English.

Furthermore, a study in Pakistan by Siddiqui et al. (2021) explored undergraduate EMI challenges including: difficulty mastering technical terms in lectures; trouble understanding some instructors with lower English proficiency; distracting code-switching between English and native languages by instructors; listening and speaking skills difficulties reduced confidence and class participation; and simultaneous listening and note-taking challenges.

In summary, extensive research has demonstrated that language proficiency issues, language barriers, interaction challenges, and psychological challenges contribute to the

## **Chapter One: Theoretical Framework & Literature Review**

---

complexity of shifting to EMI. Thus, careful consideration is needed for this complex transition.

### **1.14 Conclusion**

This chapter has explored key theoretical concepts and literature relevant to investigating the implementation of EMI in the Algerian HE. It began by examining the intertwined relationship between language and education. An overview of the linguistic landscape in Algeria has revealed that colonial history shaped the country's language planning and policies. The chapter traced the growing status of English in Algeria and summarized reforms expanding its instruction. It highlighted the emergence of English as a global language, defined EMI, differentiated it from other approaches, and pointed out the motivation for its adoption as a MOI in many universities. Understanding the challenges and benefits of EMI is crucial for its successful implementation in the Algerian HE institutions, and ensuring a smooth transition from FMI. The next chapter will lay the groundwork for the research methodology and data collection procedures.



# **Chapter Two**

## **Methodology & Data Collection Procedures**

## Chapter Two: Methodology & Data Collection Procedures

2.1	Introduction.....	33
2.2	Research objectives and motivations.....	33
2.3	Research Design .....	34
2.4	Research Methods.....	34
2.5	Case study .....	35
2.6	Department of Mathematics and Computer Science at University of Ain Temouchent Belhadj Bouchaib.....	36
2.7	Sample Population .....	36
2.7.1	Teacher’s profile .....	37
2.7.2	Students’ profile.....	38
2.8	Data collection Instruments .....	38
2.8.1	Online Questionnaire .....	39
2.8.2	Interview .....	41
2.8.3	Classroom Observation.....	43
2.9	Data Collection Procedures .....	44
2.10	Data Analysis Methods.....	45
2.10.1	Quantitative Analysis.....	46
2.10.2	Qualitative Analysis.....	46
2.11	Validity and Reliability.....	48
2.12	Conclusion .....	49

## **Chapter Two: Methodology & Data Collection procedures**

---

### **2.1 Introduction**

This chapter provides a detailed description of the research methodology and data collection procedures employed in investigating the academic language policy shift from FMI to EMI in Algerian HE institutions, specifically within the fields of Mathematics and Computer Science at the University of Ain Temouchent, Belhadj Bouchaib. Thus, the chapter covers various key aspects. Firstly, it discusses the researcher's objectives and motivations behind this investigation and delves into description and explanation of the research design and methods employed. It provides information on the context of the investigation and the sample population, and then explain the data collection instruments, the procedures followed for collecting data, and the data analysis methods applied to analyze the different collected data. Finally, the chapter tackles the measures implemented to ensure the validity and reliability of the research findings.

### **2.2 Research objectives and motivations**

The core objective of this research is to investigate the academic language policy shift from FMI to EMI in the Algerian HE within scientific disciplines. Specifically, the study aims to assess the challenges and opportunities that arise from the implementation of EMI in the Algerian universities and its consequential impact on students and teachers. While students and teachers constitute the primary stakeholders in this process, the research will focus on the difficulties encountered by teachers and students in classroom interaction during their first year of transitioning from one MOI to another.

Additionally, the study will examine the attitudes of teachers and students towards the academic language policy shift and English as a new medium of instruction. Understanding these aspects is essential for improving language use and ensuring a smooth transition to EMI.

## **Chapter Two: Methodology & Data Collection procedures**

---

The implementation of EMI in the Algerian HE is a recent decision, which makes it a significant and timely topic for research. Another important motivation for this study is students' recurring struggles with the previous language of instruction, especially in scientific fields during their first year, and their tendency to use their native dialect.

### **2.3 Research Design**

The research design plays a crucial role in any research project. It serves as the blueprint that outlines the structured plan for a research project. It is the strategy carefully formulated by the researcher to integrate different study components coherently and logically. The design specifies methods for selecting research participants, sites, and data collection procedures, aiming to mitigate potential biases while maximizing the reliability and validity of the gathered and analyzed data. An effective research design is therefore essential, as it guides the researcher in making choices that enhance the quality, credibility, and reproducibility of the findings.

This study employs a descriptive research design to investigate the implementation of EMI in the Algerian HE. It aims to describe and provide an in-depth understanding of the current status, challenges, and opportunities, as well as the perspectives of teachers and students regarding the shift towards English as the primary language of instruction within the Algerian universities, specifically in scientific fields. Descriptive research entails the systematic collection, analysis, and interpretation of data to answer questions about the current status or characteristics of the subject or phenomenon being investigated.

### **2.4 Research Methods**

This research adopts a mixed-methods approach, combining both quantitative and qualitative methods. A mixed-methods research design involves the combination of both quantitative and qualitative methods within a single research study to address and explore

## **Chapter Two: Methodology & Data Collection procedures**

---

different angles and various aspects and perspectives of the research problem using different data collection instruments and data analysis techniques, which contribute to enhancing and ensuring the validity and reliability of the research outcomes. The purpose of the mixed-methods approach is to combine the strengths of both quantitative and qualitative research and overcome the limitations of each method. Therefore, the use of mixed methods in the present research study offers the researcher a clearer picture of the phenomenon being investigated, as it provides a comprehensive understanding of the challenges, opportunities, experiences, and attitudes associated with the shift to EMI in the Algerian HE. Especially since the researcher is not part of the sample population, this approach helps to view the phenomenon through the lens of the participants.

### **2.5 Case study**

As this research investigates the implementation and academic language policy shift from FMI towards EMI in the Algerian HE within the scientific fields, a descriptive case study will be conducted at the Department of Mathematics and Computer Science (Math and CS), the University of Ain Temouchent Belhadj Bouchaib in Algeria during the academic year 2023-2024. Nunan (1997) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (p. 76). It is considered one of the most popular research methods used by researchers to gain a comprehensive and detailed understanding of a particular case or phenomenon.

In the present research study, EMI is a relatively new practice in the Algerian universities. This contemporary and context-specific case study aims to provide deep and valuable insights into the challenges, opportunities, and experiences encountered during the shift from one medium of instruction to another, as well as the implementation process of EMI in the Algerian context. It will also allow the researcher to capture the perspectives of key stakeholders, including students and teachers, to gain an in-depth understanding of EMI

## **Chapter Two: Methodology & Data Collection procedures**

---

in the Algerian context. Furthermore, the findings from this case study will contribute to the development of policies, strategies, and best practices for effectively adopting and managing the transition to EMI in the Algerian HE institutions.

### **2.6 Department of Mathematics and Computer Science at University of Ain Temouchent Belhadj Bouchaib**

The Department of Math and CS at the University of Belhadj Bouchaib Ain Temouchent consists of thirty-seven (37) teachers. It includes two (2) professors, and the rest are divided between teachers holding a PhD degree, teachers holding a Master's degree, as well as some part-time teachers.

Regarding the students of this department, particularly first-year students, they are divided into two specialties: Mathematics and Computer Science. However, these students study together and take the same courses during the initial year of the license degree program, until the second year when they separate into their respective specialties. In the first-year there is 350 students enrolled, there are approximately 70 students specializing in Mathematics and approximately 280 students specializing in Computer Science, the computer science program likely has a much larger enrollment compared to the mathematics program among the first-year students.

### **2.7 Sample Population**

The sample is crucial to perform any research study, and it is determined before data collection begins. The sample population is the sub-unit chosen to represent the whole population, as Richards (2001, p. 58) states: "Sampling involves asking a partial of the potential population instead of the total population and seeks to create a sample that is representative". Consequently, it is vital to choose a suitable sample. In other words, proper selection of the sample population is essential for ensuring the validity and generalizability

## **Chapter Two: Methodology & Data Collection procedures**

---

of the research findings. The size of the sample population is also an important consideration, as larger samples generally provide more accurate and reliable results in comparison to small samples.

In the current study, the sample population involved first-year students and teachers of Math and CS, as the implementation of EMI has impacted both students and teachers. The sample chosen for this study was carefully selected based on a set of specific criteria. First, the study aims to investigate the implementation of EMI in scientific branches, where English serves as a tool for transmitting knowledge rather than being the primary focus. Secondly, the study focuses on first-year students and teachers since the implementation of EMI affects only the first year and no other levels. Additionally, all students and teachers involved in the study are Algerians, with only a few foreign students from Nigeria, though they represent a minority. Lastly, the researcher's affiliation with this university as a student played a role in the sample selection, as it provided easier access to the target population and facilitated the data collection process.

### **2.7.1 Teacher's profile**

Since this study focuses on first-year students and teachers of Math and CS, eight (08) out of twelve (12) teachers who teach first-year students were chosen to undertake semi-structured, face-to-face interviews. The eight (8) interviewees comprising five (05) males and three (03) females, are full-time, experienced teachers with more than 10 years of experience. Among them, one participant held the position of professor, six held doctorate degrees, and one held a magister's degree and is preparing for a PhD degree. Out of the eight (08) interviewees, five (05) teach modules in the field of computer science, while the remaining three teach modules related to mathematics.

## **Chapter Two: Methodology & Data Collection procedures**

---

### **2.7.2 Students' profile**

Regarding the student sample, one hundred twenty-five (125) participants were randomly selected from a total of approximately three hundred and fifty (350) first-year students majoring in Math and CS to answer an online questionnaire. The participants were selected randomly, ensuring that every individual in the population had an equal chance of being included in the study sample. These students were selected randomly from eight (08) groups, six (06) groups specialized in Computer Science and two (02) groups specialized in Mathematics, with each group consisting approximately of thirty-five (35) students.

### **2.8 Data collection Instruments**

Data collection or data gathering is a fundamental phase in any research study, it is the process of collecting the necessary information about the phenomenon under investigation. It involves selecting and implementing appropriate instruments, as the quality and reliability of the data collected can directly impact the validity and credibility of the findings. Hence, this phase should be carefully planned. The choice of data collection instruments depends on various factors, such as the nature of the study, the research problem and objectives, the research design, and the target population.

To investigate the challenges and opportunities of the academic language policy shift from French to EMI in the Algerian HE, and to understand both the Algerian students and teachers' perspectives about this transition, specifically in scientific branches, three data collection instruments were used to gather data from different angles: an online questionnaire, semi-structured interviews, and classroom observations. Each of the three instruments serves a distinct purpose and has its own set of strengths and weaknesses.

The first data collection instrument used is a structured online questionnaire administered to students. This aims to obtain students' own perspectives about the transition and implementation of EMI instead of FMI, as well as the challenges they encounter.



## **Chapter Two: Methodology & Data Collection procedures**

---

The second instrument consists of interviews with teachers to elicit useful information about their experiences, opinions, or impressions regarding the academic language transition and the new language of instruction. These interviews allowed for an in-depth exploration of teachers' perspectives, who play a pivotal role in facilitating the EMI implementation and in understanding both opportunities and obstacles associated with this academic language policy change.

The third instrument involves classroom observations to observe language use, interactions, and performance, as well as the challenges encountered by both teachers and students, which provide real-world scenarios. The three data collection instruments used in this study are described further below.

### **2.8.1 Online Questionnaire**

The questionnaire is a popular and widely used data collection instrument by many researchers. It consists of a series of questions and other prompts for the purpose of gathering information from respondents. It is generally considered a quantitative data collection method, and it is a good tool to collect information from a large sample efficiently.

In the current study, an online questionnaire was disseminated to a total of 350 students enrolled in the Math and CS departments. The number of respondents who answered the questionnaire was twenty-five (25) students, which represents the half of the population (50%). It is worth mentioning that during a discussion with an administrator from the Department of Math and CS, he/she stated that while the total enrollment for this specialty is 350 students, approximately 250 are actively attending and engaged in their studies.

The purpose of the questionnaire is to gather information about the attitudes and opinions of students towards the implementation of EMI in Algerian HE particularly in the fields of Math and CS at the University of Ain Temouchent Belhadj Bouchaib. The students were requested to respond to the questionnaires in French to prevent any possible ambiguity,

## **Chapter Two: Methodology & Data Collection procedures**

---

considering that the previous language of instruction was French, the questionnaire items were initially written in English and then translated into French to align with the research topic under study and participants' capabilities.

The questionnaire was distributed online via emails and through social media platforms Facebook and Messenger, which enabled researcher to efficiently reach a wider audience, save time, and make it easier for respondents to reply at their convenience. It also allowed respondents to reflect on the questions and provide more reliable responses. The online questionnaire was accessible to respondents for a period of two (02) months to allow sufficient time for participation.

The questionnaire followed a structured format with a logical question order, starting with personal questions and progressing to more targeted and subject-specific questions. Most of the questions are closed-ended questions with predetermined response options (multiple choice, yes/no). There are a few open-ended questions allowing students to provide explanations of their choice as well as comments to express their opinions (see Appendix 7 and 8).

The questionnaire comprised fifteen (15) questions. It started with introduction explaining the purpose of the study and the importance of the respondents' participation. Additionally, concise definition of the terms "language of instruction" or "medium of instruction" was provided to ensure respondents had a clear comprehension of these concepts before proceeding with the questions.

The first four (Q1, Q2, Q3, Q4) are closed-ended questions with predetermined responses, which were personal questions about gender, specialty, students' levels of English proficiency, as well as their English use outside the class in their daily lives. These aim to gather background information about the students. The next three questions (Q5, Q6, and Q7) inquire about the students' opinions, views, and attitudes on the shift to EMI and its

## **Chapter Two: Methodology & Data Collection procedures**

---

importance. Questions (Q8, Q9, and Q10) address the impact of the language transition on the students' academic performance and whether they face any challenges or difficulties in their courses with English. (Q11) focuses on the usefulness of the MESRS's platform in improving students' English proficiency. (Q12) relates to whether the English taught pre-university is perceived as adequate for pursuing university-level scientific studies. (Q13, Q14) are about students' perceptions of the ESP courses offered by the department and if there are any other English language support services offered. (Q15) is the last question, an open-ended question to elicit suggestions for strategies to better support adaptation to EMI from the students' point of view. The data collected through this questionnaire will be analyzed to determine if the students' viewpoints and attitudes support the hypotheses formulated for the research study.

### **2.8.2 Interview**

An interview is a commonly used qualitative research instrument that typically refers to a conversation between two people, the interviewer and the interviewee, conducted to collect information on a certain phenomenon or topic. Interviews play a crucial role in research by providing rich qualitative data, which enables researchers to explore complex topics in-depth. It is considered a valuable tool since it allows the researcher to interact directly with participants and asks open-ended questions to encourage detailed responses.

As the previous research instrument focused solely on viewpoints, attitudes, and perspectives of students of Math and CS regarding the shift to EMI in the Algerian HE institutions, the data obtained was insufficient to fully understand this phenomenon. Consequently, it was necessary to incorporate an additional methodological tool, interviews, to explore teachers' perspectives and insights on this subject matter. The inclusion of interviews aimed to provide a more comprehensive understanding by capturing opinions, experiences, perspectives, as well as the challenges in the implementation of EMI.

## **Chapter Two: Methodology & Data Collection procedures**

---

A semi-structured interview was conducted in this research with eight (08) teachers from a total of twelve (12) teachers teaching first-year Math and CS in the department of Math and CS at the University of Ain Temouchent Belhadj Bouchaib. These participants constitute (66%) of the target population. This semi-structured interview combines elements of both structured and unstructured interviews. It follows a predetermined set of questions but allows flexibility based on the flow of the conversation and the participants' responses (see Appendix 9). The interviews were conducted in the French language to ensure clarity and comprehension of the questions and to avoid any possible ambiguity, since French was the previous MOI and most of the teachers are accustomed to speaking French. Most of the interviews were audio-recorded after taking the interviewees' permission, to save time and ensure that all information was accurately captured. The responses were then transcribed and translated into English. The interviews lasted between 15 minutes and 1 hour. All the interviews were conducted face-to-face at the University of Ain Temouchent Belhadj Bouchaib.

The interview consists of 10 open-ended questions, where the teachers can provide more detailed responses, thereby gathering richer qualitative data. Initially, the first two questions (Q1 and Q2) were personal questions about qualifications, background information, and teaching experience. Subsequently, the next three questions (Q3, Q4, and Q5) explored the interviewees' opinions, views, and experiences regarding the academic language policy shift from FMI to EMI in the Algerian HE, specifically in scientific fields. Moreover, (Q5) investigated whether or not the teachers had specific training or professional development to teach in English. Additionally, (Q6 and Q7) looked forward to gather data about the challenges faced by teachers in the transition and the challenges students encounter with EMI, respectively. (Q8) is intended to identify effective strategies and techniques the teachers use to facilitate student comprehension and engagement with content delivered in

## **Chapter Two: Methodology & Data Collection procedures**

---

English. Afterward, (Q9) explored the teachers' perspectives on the benefits of EMI for the university. Finally, the last question (Q10) was open-ended, the interviewees were requested to provide suggestions to enhance the integration and transition to EMI in scientific fields.

### **2.8.3 Classroom Observation**

Observation is a powerful research tool that involves systematically observing participants and phenomena in their natural settings to gather data. It entails watching behaviors, reactions, and interactions in real-world contexts, which provide a deeper understanding of the phenomena being investigated. Unlike other tools, observation does not depend on participants' willingness or capability to provide information. Thus, researchers can directly witness and record people's actions, practices, and behaviors firsthand rather than relying on self-reported data. Moreover, data are collected in real-time and in the actual setting where teaching, learning, and classroom interactions naturally occur.

In the current study, classroom observation was employed to examine the actual implementation of EMI, and to identify the challenges associated with its implementation in the Algerian HE, specifically in the fields of Math and CS. As the previous research instruments shed light only on the participants' perspectives, classroom observation is crucial to understand the actual implementation of EMI in its real settings. Consequently, a total of thirteen (13) structured observation sessions were conducted in different classroom settings to gain a more comprehensive understanding of the phenomenon under study. The structured observation allows the researcher to be organized, which ensures that all aspects were thoroughly observed. The observations were conducted during the 2023/2024 academic year. The observed sessions were divided into seven (7) course sessions, four (4) tutorial sessions known as "Travaux Dirigés" (TD), and two (2) practical sessions known as "Travaux Pratiques" (TP). Each session lasted for one hour and a half. It is worth noting that the students' curriculum comprised seven (7) modules, each with a teacher responsible

## **Chapter Two: Methodology & Data Collection procedures**

---

for delivering the course (lecture), supplemented by tutorial sessions taught by different teachers, and some modules included additional practical sessions conducted by specific teachers. The researcher did not participate in the observations to maintain objectivity. In addition, the observations were mostly covert to ensure that students felt relaxed and behaved naturally. The observational data were recorded by writing notes and filling out the observation grid paper.

The observation grid covered seven (07) key aspects to be examined during the classroom observations (see Appendix 11). This included observing the language(s) used by both the teachers and students during the session. It also aimed to assess the teachers' ability to effectively convey complex course content in the English language. Additionally, the grid monitored whether there were any specialized materials or resources designed to aid in the language transition to EMI. The grid also focused on teacher-student interactions and whether students actively participated in discussions and activities during the sessions. The next aspects attempted to examine the overall classroom atmosphere, including the comfort level of students and their general attitudes towards the language shift to EMI. Finally, the grid provided a space for the observers to note down any difficulties or issues that arose related to the practical implementation of EMI in the classroom setting.

### **2.9 Data Collection Procedures**

The data collection process began with the first step where the researcher developed an observation grid and conducted two preliminary observations during the first semester of the 2023/2024 academic year. This helped the researcher gain an initial understanding of EMI practice in the Algerian context.

The second step involved administering the students' questionnaire before the actual data collection. This aimed to assess the clarity and suitability of the online questionnaire

## **Chapter Two: Methodology & Data Collection procedures**

---

and to gather initial insights about the implementation of EMI from the students' perspectives.

Following the initial observations and pilot questionnaire, the researcher administered the final questionnaire to all participants, which took two months (02) to gather the responses. Additionally, the researcher conducted the remaining observations over one month and a half, simultaneously with teacher interviews during the second semester. The interviews allowed the researcher to directly capture the perspectives and challenges faced by the teachers, in total, eight (08) interviews were conducted over a two-week period.

### **2.10 Data Analysis Methods**

After the data collection phase, the data analysis phase follows. It involves examining, filtering, and analyzing the collected data. The data can be analyzed using either quantitative or qualitative methods, or a combination of both, depending on the nature of the collected data. Each analytical method encompasses distinct interpretive techniques that facilitate the comprehension of research findings. Data analysis forms the core and backbone of research, that enables researchers to derive meaningful conclusions from the phenomenon being investigated. Therefore, researchers must pay close attention to the data analysis phase to effectively address their research questions and objectives.

In investigating the shift to EMI in scientific branches, particularly in the fields of Math and CS, in the Algerian HE, two methods of data analysis were employed for the data obtained from three research instruments. The rationale behind this approach was based on the nature of the collected data, which necessitated the use of different analytical techniques and the belief that mix methods would provide more reliable research results. Consequently, a mixed methods approach which combines qualitative and quantitative methods seemed appropriate for data collection and analysis. First, the online questionnaire data were analyzed quantitatively for the closed-ended questions and qualitatively for the open-ended

## **Chapter Two: Methodology & Data Collection procedures**

---

items that allowed participants to express themselves freely. Second, interview data were analyzed using qualitative methods. Lastly, classroom observations employed both qualitative note-taking and quantitative measures, such as tracking the number of students were analyzed using mix methods.

### **2.10.1 Quantitative Analysis**

The quantitative data analysis method is regarded as an objective approach that encompasses the systematic examination of numerical data, such as close-ended questions, multiple-choice responses, and test scores, through the application of statistical methods and techniques, including mathematical calculations and statistical tests.

The present study employed quantitative analysis techniques on numerical data to investigate students' perspectives regarding the implementation of EMI and language-related challenges. The online questionnaire responses were automatically stored and organized in a spreadsheet through the Google Forms platform. The closed-ended questionnaire items were analyzed through quantitative methods, while the open-ended questions, which allowed participants to provide justifications, express themselves freely, or offer additional comments, necessitated the application of qualitative analytical techniques. The numerical data were transformed into percentages and visually represented through graphs, pie charts and tables to facilitate comparison and interpretation. This descriptive analytical process aimed to present the findings in a clear and concise manner.

### **2.10.2 Qualitative Analysis**

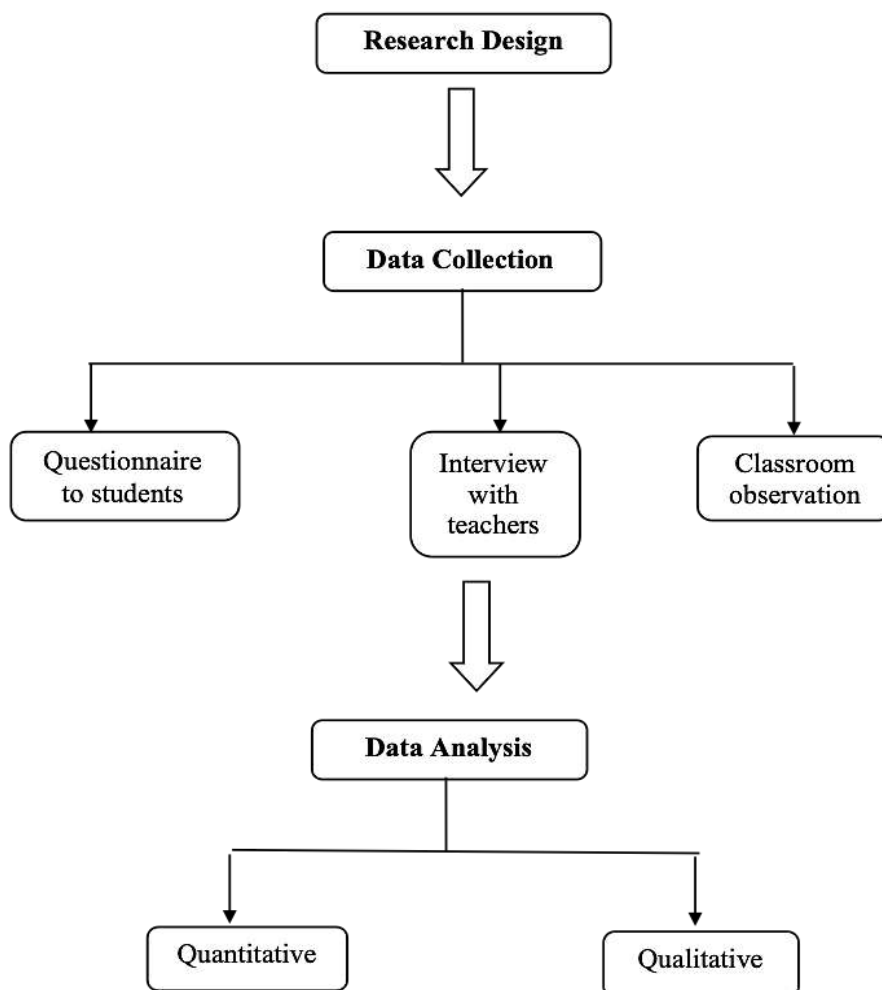
Qualitative data analysis, in contrast to quantitative methods, involves the collection of non-numerical data from various sources, employing diverse data collection tools such as interviews and observations. It is subjective in nature which typically associated with interpretive and critical approaches that aim to explore subjective experiences, opinions, and attitudes that aim to gain a rich, in-depth understanding of the phenomenon being studied



## Chapter Two: Methodology & Data Collection procedures

from the perspective of the participants. Therefore, the qualitative data analysis process is inductive, which necessitates analyzing data through methods such as thematic analysis, content analysis, or discourse analysis techniques.

For this study, a qualitative data analysis method was employed to examine and interpret the data gathered from teachers' interviews and classroom observations. The interview data were audio recordings that were transcribed and presented as texts, direct quotations, and indirect quotations. Concerning, the observation data were collected by taking detailed notes during classroom observations. These observation notes were further described and analyzed during the analysis and interpretation phases. To conclude this section, the research design employed in this study is summarized in the schema below:



**Figure 2.1: Research Design**

### **2.11 Validity and Reliability**

In any research study, ensuring validity and reliability are pivotal pillars for establishing the quality, accuracy, and trustworthiness of the findings. As these enhance transparency and reduce the potential for researcher bias, they therefore ensure to produce high-quality research that can be trusted and used by the broader academic community. Validity ensures that a research instrument accurately measures what it intends to measure, which establishes the credibility and accuracy of the study's findings. Reliability, on the other hand, is concerned with the consistency and stability of the research results. In other words, the instrument produces consistent results over time and across situations.

To ensure validity and reliability in the present research study methodological triangulation as well as instrument triangulation were employed. Methodological triangulation entailed the use of both qualitative and quantitative research methods. Instrument triangulation involved using different research instruments: an online questionnaire administered to first-year students of Math and CS, interviews with teachers, and classroom observations to gather data. Triangulation is a valuable approach that involves employing different instruments, research sites, and data sources to study a phenomenon, thereby enhancing the validity and trustworthiness of the research findings.

In addition, to promote reliability, the questionnaire items were formulated clearly and unambiguously, and it was distributed online, allowing participants to access it at their convenience in a comfortable and quiet environment. This encouraged honest responses and accommodated participants' busy schedules at the university, making it more practical compared to the paper-based method. These strategies aimed to ensure the validity and reliability of the study's outcomes, which investigated the academic language policy shift from FMI to EMI in the Algerian HE.

### **2.12 Conclusion**

This chapter outlined the research methodology and data collection procedures employed in the study investigating the shift from FMI to EMI in the Algerian HE institutions, with a specific focus on the Department of Math and CS at the University of Ain Temouchent. The descriptive research design and mixed-methods approach, combining both quantitative and qualitative techniques, are discussed as suitable choice for achieving the research objectives and gaining an in-depth understanding and exploration of the challenges, opportunities, and perspectives associated with the implementation of EMI in the Algerian context. Subsequently, Multiple data collection instruments, including an online questionnaire for students, semi-structured interviews with teachers, and classroom observations, were used to enhance the validity and reliability of the research findings. The next chapter of this research will focus on data analysis, discussion, and interpretation of the results, as well as provide suggestions and recommendations to enhance the integration of EMI in the Algerian HE institutions.

**Chapter Three**  
**Data Analysis,**  
**Suggestions &**  
**Recommendations**

## **Chapter Three: Data Analysis, Suggestions & Recommendations**

3.1	Introduction.....	52
3.2	Data Analysis.....	52
3.2.1	Analysis of Students' Questionnaire .....	52
3.2.2	Analysis of the Interviews .....	66
3.2.3	Classroom Observations Analysis .....	71
3.3	Summary of the Main Results .....	74
3.4	Some Suggestions & Pedagogical Recommendations .....	76
3.4.1	Outside the Classroom.....	76
3.4.2	Inside the classroom .....	79
3.5	Limitations of the study .....	80
3.6	Conclusion .....	81

## Chapter Three: Data Analysis, Suggestions and Recommendations

### 3.1 Introduction

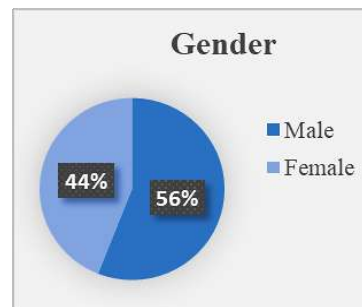
This chapter presents an in-depth analysis of the data collected through three main instruments, namely an online questionnaire, interviews, and classroom observations, employing both quantitative and qualitative methods. The purpose of this analysis is to examine the implementation of EMI at the University of Belhadj Bouchaib in Ain Temouchent, particularly in the scientific fields of Math and CS. It discusses the results of the online questionnaire administered to twenty-five (125) students, interviews with eight (08) teachers, and classroom observations. The chapter provides a summary of the key findings and offers a set of recommendations and suggestions aiming to enhance the integration and seamless transition to EMI in tertiary education. Finally, the chapter concludes by discussing the limitations of the research study.

### 3.2 Data Analysis

#### 3.2.1 Analysis of Students' Questionnaire

##### Question 1 : Gender

Options	Frequency	Rate
Male	70	56%
Female	55	44%
<b>Total</b>	125	100%



**Table 3.1: Students' gender distribution**   **Figure 3.1: Students'gender distribution**

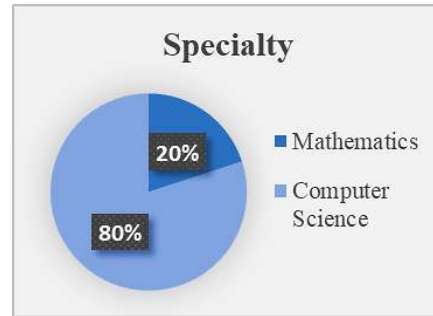
The results from this closed-ended demographic question indicate that 70 respondents (56%) are male, and 55 respondents (44%) are female. This suggested that there were slightly more male students than female students who participated in this questionnaire. These data can be used to describe the gender distribution within the sample population and analyze it

## Chapter Three: Data Analysis, Suggestions and Recommendations

to identify potential gender-related differences in responses to the other questions in the questionnaire.

### Question 2: Specialty

Options	Frequency	Rate
Mathematics	25	20%
Computer Science	100	80%
<b>Total</b>	125	100%



**Table 3.2: Students' academic specialties**     **Figure 3.2: Students' academic specialties**

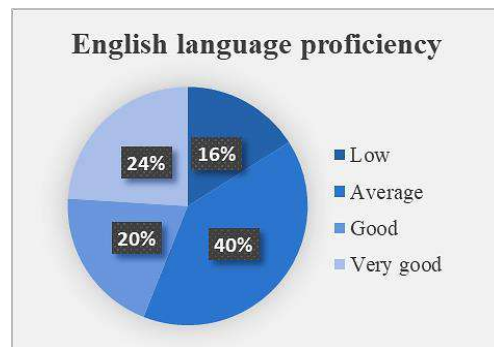
This direct, closed-ended question with two options “Mathematics” and “Computer Science”, aimed to gather information about the students’ academic specialties. The results show that the majority of the first-year students surveyed are specializing in Computer Science (80%), while a smaller proportion are specializing in Mathematics (20%). These data allow for analyzing potential differences in responses or experiences between the two groups of students based on their specialties.

### Question 3: How would you rate your proficiency in English?

This personal closed-ended question with four ordered options on a Likert scale—low, average, good, and very good—aimed to provide insights into students’ English proficiency and, therefore, their potential challenges and readiness for the shift to EMI. The following table and its corresponding pie chart highlight the varying proficiency levels within the surveyed sample.

## Chapter Three: Data Analysis, Suggestions and Recommendations

Options	Frequency	Rate
Low	20	16%
Average	50	40%
Good	25	20%
Very good	30	24%
<b>Total</b>	<b>125</b>	<b>100%</b>



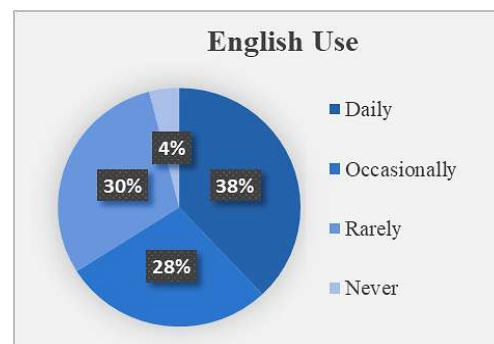
**Table 3.3: Students' English language proficiency**

**Figure 3.3: Students' English language proficiency**

The largest group, consisting of 50 respondents (40%), rated their English proficiency as “Average”, indicating a moderate level of proficiency. 30 respondents (24%) rated their English proficiency as “Very good”, indicating a strong command of English. Similarly, 25 respondents (20%) rated their English proficiency as “Good”. While not at the highest level, these respondents had a reasonable grasp of English. Finally, 20 respondents (16%) rated their English proficiency as “Low”, which indicates that this group may face more challenges in adapting to EMI compared to their peers with higher self-reported English skills. Hence, the chosen sample of 125 respondents consisted of students with generally average to above-average English proficiency levels.

**Question 4:** How often do you use English outside of the classroom?

Options	Frequency	Rate
Daily	47	38%
Occasionally	35	28%
Rarely	38	30%
Never	5	4%
<b>Total</b>	<b>125</b>	<b>100%</b>



**Table 3.4: Students' English use outside of the classroom**

**Figure 3.4: Students' use outside of the classroom**



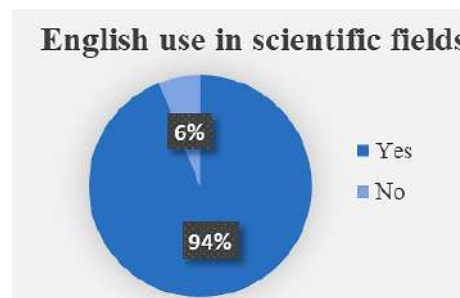
## Chapter Three: Data Analysis, Suggestions and Recommendations

This personal close-ended question, with four options (Daily, Occasionally, Rarely, and Never) aimed to provide insights into the students' overall exposure to and practice with the English language outside the classroom. As shown in the table and pie chart, the results reveal that 47 respondents (38%) used English daily outside of the classroom, which could potentially facilitate their transition to EMI. There was a narrow gap between those who reported using English occasionally (28%) and those who said they used it rarely (30%), indicating limited exposure to English outside of academic settings. Furthermore, 5 respondents (4%) indicated they never used English outside the academic setting, representing a group of students with minimal exposure to English, which could potentially pose challenges in adapting to EMI. These findings suggest that while a notable portion of students used English daily outside of the classroom, a significant number had limited exposure to the language, which can impact their readiness and potential challenges in adapting to EMI.

**Question 5:** Do you agree with the use of English in scientific fields?

Options	Frequency	Rate
Yes	117	94%
No	8	6%
<b>Total</b>	125	100%

**Table 3.5: Students' opinions on the use of English in scientific fields**



**Figure 3.5: Students' opinions on the use of English in scientific fields**

This closed-ended question with "Yes" or "No" options aimed to obtain information about the students' opinions regarding the use of English in scientific fields. The results show that 117 students (94%) agreed with the use of English in scientific fields, while only 8 students (6%) disagreed with it. These results indicate a substantial preference and support for EMI in scientific fields among the majority of respondents, which can facilitate their

## Chapter Three: Data Analysis, Suggestions and Recommendations

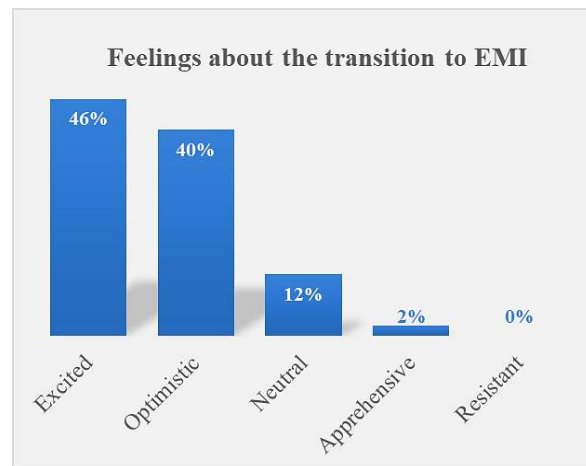
transition and adoption of EMI. However, the small number of students who disapproved could potentially reflect their attachment to FMI.

**Question 6:** How do you feel about the transition to English as the primary language of instruction?

This closed-ended question aimed to investigate the respondents' feelings regarding the transition to EMI, using a range of options from positive “Excited”, “Optimistic”, to negative “Neutral”, “Apprehensive”, and “Resistant”.

Options	Frequency	Rate
Excited	57	46%
Optimistic	50	40%
Neutral	15	12%
Apprehensive	3	2%
Resistant	0	0%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.6: Students’ feelings about the transition to EMI**



**Figure 3.6: Students’ feelings about the transition to EMI**

The results showed that the majority of students had positive feelings about the transition to EMI, with 57 respondents (46%) feeling “Excited” and 50 respondents (40%) feeling “Optimistic”. A smaller group of 3 respondents (2%) expressed feeling “Apprehensive”, while 0 respondents indicated feeling “Resistant”. The 15 respondents (12%) who reported feeling “Neutral” likely had mixed or uncertain feelings about the transition. Based upon these findings, most of the students were receptive to the change, though a small percentage expressed some apprehension.

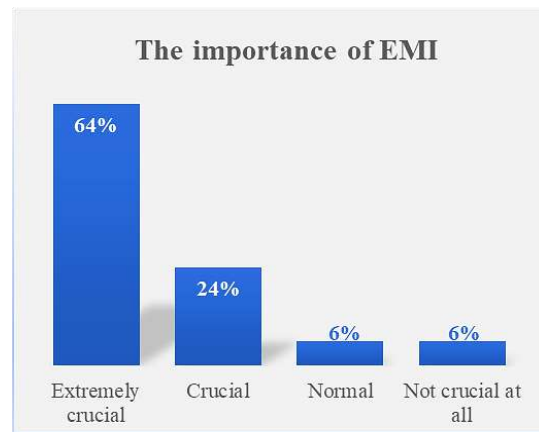
## Chapter Three: Data Analysis, Suggestions and Recommendations

**Question 7:** To what degree do you believe the implementation of EMI is crucial in the scientific field?

This is a closed-ended question with four options: “Extremely crucial”, “Crucial”, “Normal”, and “Not crucial at all”, followed by an open-ended to justify the chosen response. It aimed to obtain information about the students’ perceptions of the necessity and importance of adopting EMI in scientific fields like Math and CS.

Options	Frequency	Rate
Extremely crucial	80	64%
Crucial	30	24%
Normal	8	6%
Not crucial at all	7	6%
<b>Total</b>	125	100%

**Table 3.7: Students’ perceptions of the importance of adopting EMI**



**Figure 3.7: Students’ perceptions of the importance of adopting EMI**

The findings revealed that the majority of the surveyed students, 64% (80 respondents), and 24% (30 respondents), viewed the adoption of EMI as essential for scientific disciplines. Some statements expressed by students justifying their responses include: “*Because English is an international language*”, “*English is the language of evolution*”, “*English is crucial for studies because it allows access to a greater amount of resources, research, and knowledge. Many textbooks, articles, and courses are available in English, and English is often used in international universities and academic settings, which opens doors for study abroad opportunities*”, “*English is the language of science, and the whole world speaks it, unlike French, which is very limited, not to mention that most developed countries use it as a language of instruction in higher education.*” (translated by the researcher).

## Chapter Three: Data Analysis, Suggestions and Recommendations

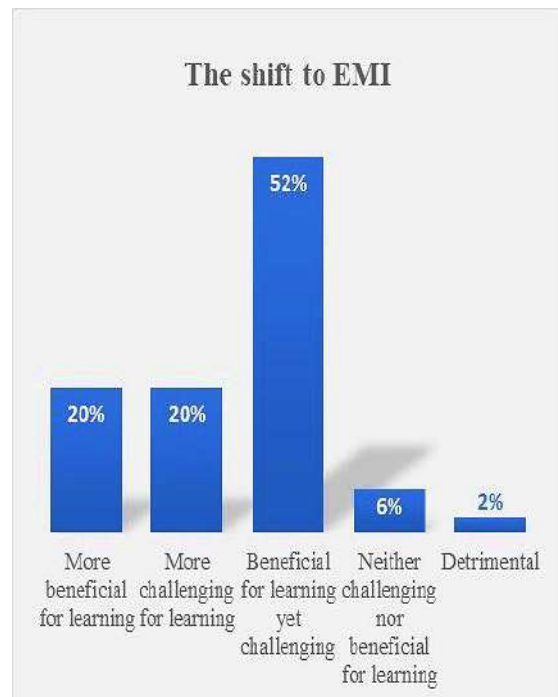
On the other hand, only 6% (8 respondents) perceived it as “Normal”. Similarly, 6% (7 respondents) regarded it as “Not crucial at all”, expressing their opinion as: *“French is better, and even all students and teachers speak well in this language”, “I do not understand scientific terminology in English, since we have gotten used to French since childhood, and our computer terminology is in French.”* (translated by the researcher).

The majority of students supported EMI due to the benefits that English provides as an international language, especially in the field of computer science, which may facilitate the shift to EMI and have a positive impact on their academic performance. A minority held neutral or dismissive views regarding EMI, as they are accustomed to using French, which may lead to potential challenges.

**Question 8:** How do you perceive the academic language shift this year?

Options	Frequency	Rate
More beneficial for learning	25	20%
More challenging for learning	25	20%
Beneficial for learning yet challenging	65	52%
Neither challenging nor beneficial for learning	8	6%
Detrimental	2	2%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.8: EMI impact on Students’ learning experience**



**Figure 3.8: EMI impact on Students’ learning experience**

As shown in the pie chart and table, the majority of 65 respondents (52%) perceived the academic language shift as “Beneficial for learning yet challenging”, recognizing both

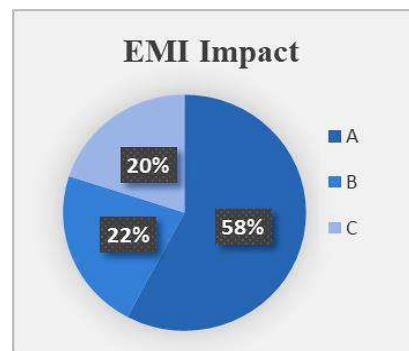
## Chapter Three: Data Analysis, Suggestions and Recommendations

the advantages and difficulties of adapting to learning in EMI. 25 respondents (20%) find it “More beneficial for learning”, as they benefited only from EMI. Similarly, 25 respondents (20%) found it “More challenging for learning”, indicating they faced only difficulties with EMI. A smaller group of 8 respondents (6%) considered the shift as “Neither challenging nor beneficial for learning”, indicating no significant impact. Finally, 2 respondents (2%) regarded the shift as “Detrimental” potentially due to not getting used to EMI and not benefiting at all. These results highlight a mixed perception among students, though a significant portion found the shift to EMI beneficial for learning yet challenging. This indicates a need to address the potential difficulties faced by students adapting to EMI.

**Question 9:** Do you believe the transition to EMI impacted your academic performance?

Options	Frequency	Rate
A	65	58%
B	25	22%
C	23	20%
<b>Total</b>	125	100%

**Table 3.9: EMI impact on students’ academic performance**



**Figure 3.9: EMI impact on students’ academic performance**

This is a closed-ended multiple-choice question that aimed to obtain information regarding the impact of the transition to EMI on students’ academic performance. The question was followed by an open-ended prompt for students to justify their choice. The results presented in the table as well as the pie chart show that the majority of respondents, about 65 (58%), claimed the transition to English instruction had a positive impact on their academic performance. 25 respondents (22%) believed the transition to English did not have an impact on their academic performance. And nearly the same, 23 respondents (20%), believed the transition to English had a negative impact on their academic performance. For

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

students who reported a positive impact, most of their justifications included: *“English is a universal language and facilitates academic research, especially for those seeking opportunities outside of Algeria”*, *“It has a great impact as most reference and course resources for my computer science studies are in English”*. For students who reported no impact, their justifications were: *“No impact on results since I’m proficient in both languages”*. The justifications from students who reported a negative impact included: *“Difficulties in understanding, especially exam questions”*, *“Some teachers struggle to explain concepts in English”*. (translated by the researcher)

From the responses, it is evident that the positive view of EMI’s impact on students’ academic performance aligns with the benefits it offers for academic and professional opportunities beyond the local context. However, the significant minority reporting negative effects highlights the challenges faced by students with low English proficiency, leading to difficulties comprehending course materials and exams. On the other hand, the responses citing no impact suggest that some students could navigate EMI without significantly affecting their academic outcomes, potentially due to their prior English skills.

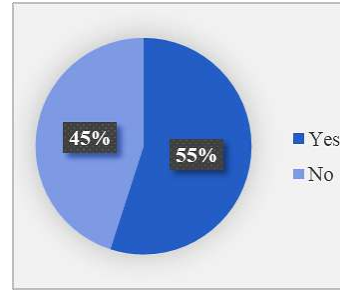
**Question 10:** Do you face any difficulties in your courses because of your English-language level?

This is a closed-ended yes/no question, followed by a multiple-choice question asking respondents to specify the types of difficulties they face. The aim of this question is to determine whether students encountered challenges in their courses due to their English proficiency level and, if so, to identify the specific areas of difficulty. The following table and pie chart reveal the results obtained.

## Chapter Three: Data Analysis, Suggestions and Recommendations

Options	Frequency	Rate
Yes	69	55%
No	56	45%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.10: Students' difficulties**

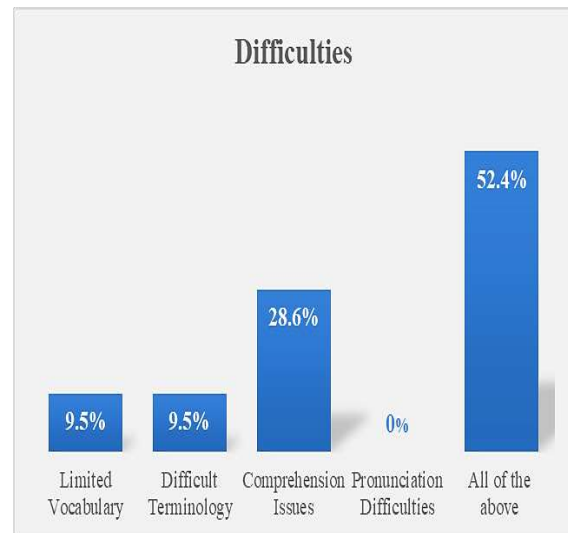


**Figure 3.10: Students' difficulties**

Out of the total respondents, 45% (56 students) answered “No” to facing difficulties, potentially due to their good English level, while 55% (69 students) answered “Yes” to facing difficulties.

Options	Frequency	Rate
Limited Vocabulary	7	9.5%
Difficult Terminology	7	9.5%
Comprehension Issues	19	28.6%
Pronunciation Difficulties	0	0%
All of the above	36	52.4%
<b>Total</b>	<b>69</b>	<b>100%</b>

**Table 3.11: Students' specific difficulties**



**Figure 3.11: Students' specific difficulties**

For those who reported facing difficulties, 28.6% (19 students) reported comprehension issues specifically, and 9.5% (7 students) found the terminology difficult. Similarly, 9.5% (7 students) cited limited vocabulary. There were no respondents who selected pronunciation difficulties specifically. However, the majority, 52.4% (29 students), faced a combination of all difficulties. No one added any other difficulties in the dedicated space. The findings revealed that a significant portion of students encountered various difficulties to adopt EMI, mainly limited vocabulary, comprehension issues, and difficulties

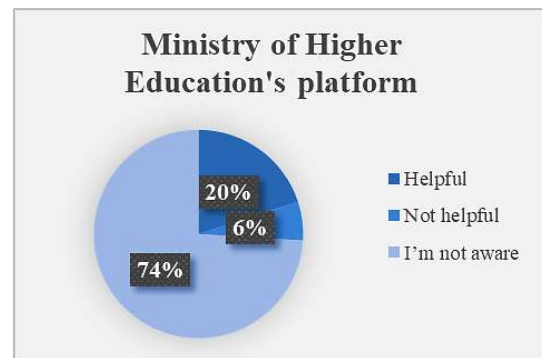
## Chapter Three: Data Analysis, Suggestions and Recommendations

with scientific terminology. Potentially due to their English language proficiency level, these students are not better equipped in the language of their respective fields.

**Question 11:** Did you find the MESRS's platform, introduced in summer 2023, helpful in enhancing your English level to reach B2 level or to improve your English proficiency?

Options	Frequency	Rate
Helpful	25	20%
Not helpful	8	6%
I'm not aware	92	74%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.12: Students' perception of the MESRS's platform**



**Figure 3.12: Students' perception of the MESRS's platform**

This closed-ended question with multiple-choice options aims to determine whether students found the MESRS's platform, introduced in summer 2023, helpful in enhancing their English proficiency level to reach the targeted B2 level. Out of the total respondents, 92 respondents (74%) were not aware of the platform, 25 respondents (20%) found the platform helpful, and 8 respondents (6%) did not find the platform helpful. These findings reveal that an overwhelming majority were unaware of the existence of this Ministry platform aimed at improving English language skills. Unfortunately, this lack of awareness among most students raises concerns about the effectiveness and reach of the Ministry's efforts to promote English language skills at the university and specifically the Math and CS department. It indicates a potential gap in communication or promotion strategies that could be addressed to increase awareness and participation in such initiatives.

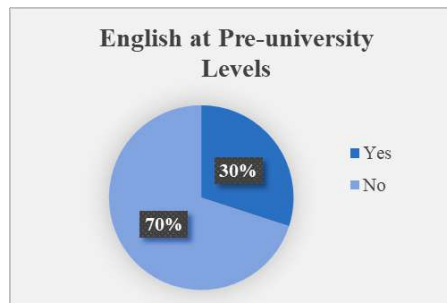


## Chapter Three: Data Analysis, Suggestions and Recommendations

**Question 12:** Do you feel that the English taught in pre-university education (primary school, middle school, and secondary school) is adequate for pursuing university-level studies in scientific fields?

Options	Frequency	Rate
Yes	37	30%
No	88	70%
<b>Total</b>	125	100%

**Table 3.13: Students' opinion on English at pre-university levels**



**Figure 3.13: Students' opinion on English at pre-university levels**

This closed-ended question aimed to gather students' opinions on the adequacy of English education at pre-university levels for pursuing university-level studies in scientific fields. 30% of respondents answered "Yes" indicating they felt the English taught at the pre-university level was adequate. However, the majority (70%) answered "No" indicating they perceived the pre-university English education as insufficient, stating that the pre-university focus was primarily on language rules rather than communication skills, and that the vocabulary requirements differed at the university level. These findings highlighted a gap between the English education received at pre-university levels and the requirements for scientific studies at the university level, which require specific areas of improvement in English education at the pre-university level.

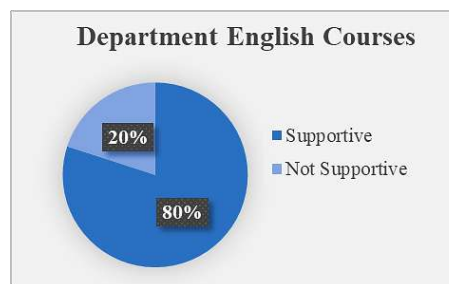
**Question 13:** How do you find the English language courses provided by your department?

This closed-ended question with two options (Supportive/Not Supportive) aimed to gather students' opinions on the effectiveness of the ESP courses offered by the departments of Math and CS.

## Chapter Three: Data Analysis, Suggestions and Recommendations

Options	Frequency	Rate
Supportive	100	80%
Not Supportive	25	20%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.14: Students' opinion on the effectiveness of ESP courses**



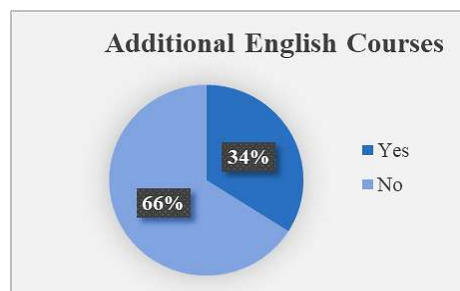
**Figure 3.14: Students' opinion on the effectiveness of ESP courses**

The results indicate strong overall support, with 100 respondents (80%) for the ESP courses within the departments, referring that the courses adequately address the specific language needs required in these scientific disciplines. However, a minority of 25 respondents (20%) found the courses unsupportive, highlighting potential areas for improvement in terms of course content, instructional methods, or better alignment with the fields' language requirements.

**Question 14:** Are there any other services offered by your department or university to assist you with English language support?

Options	Frequency	Rate
Yes	43	34%
No	82	66%
<b>Total</b>	<b>125</b>	<b>100%</b>

**Table 3.15: English Language Support Availability**



**Figure 3.15: English Language Support Availability**

This closed-ended (yes/no) question aimed to determine if the department or university offered any services beyond the ESP courses to assist students with English language support. It is followed by a conditional statement for respondents who answer “yes”, requesting them to specify the services. Based on the findings, the majority, 82 respondents (66%), responded “No”, indicating that they were not aware of or did not have access to such

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

services. Meanwhile, 43 respondents (34%) answered “Yes”, indicating that their university offered additional English language support services. Those students who answered “Yes” specified in the dedicated space that they were referring to the CEIL (Centre d’Enseignement Intensif des Langues) or (Intensive Language Teaching Center) at the University of Belhadj Bouchaib in Ain Temouchent.

**Question 15:** What strategies or resources do you think would assist in creating a more supportive environment for students adapting to English-medium instruction?

This open-ended question allowed respondents to express their opinions, ideas, and perspectives freely without being restricted to pre-defined answer choices. The repeated statements expressed by 125 respondents were: *“Teachers must practice English well”*, *“Provide translation when we face difficulties”*, *“Explanation in English, then in Arabic and French”*, *“Provide free English courses at the university”*, *“Memorize specialized terms and learn them as a hobby in our free time”*. Two students asserted: *“It will just keep getting better year after year; it doesn't need any strategy”*. These responses highlight the need for translanguaging practices in EMI classrooms, which involve instructors providing explanations and translations in multiple languages like Arabic and French alongside English to bridge comprehension gaps and create an inclusive learning environment. Teacher training is also crucial, as respondents emphasized the need for instructors to have a strong command of English to effectively communicate subject matter and facilitate learning in the EMI context. Additionally, students recognized their role in actively building specific vocabulary and terminology in English through dedicated efforts outside of class time, which could accelerate their adaptation to EMI. However, a few students expressed confidence in the natural progression and improvement of the EMI transition over time.

### **3.2.2 Analysis of the Interviews**

#### **Question 01 and 02: Background information**

The purpose of these two questions is to gather background information about the interviewees. The analysis of the interviews revealed that the age range of the eight (08) teachers is between 35 and 65 years old. Regarding academic qualifications, one interviewee holds the degree of professor, six possess doctoral degrees (PhD), and one has a magister degree and pursuing a PhD. All are full-time teachers. Among the interviewees, five teach modules in the field of computer science, while the remaining three teach modules related to mathematics. These teachers possess high levels of experience, ranging from 10 to 20 years in the university sector, during which they have taught various modules across different universities. Notably, all of them have previously taught in French. Additionally, some interviewees have experience teaching at the secondary level.

**Question 03:** What is your opinion on the shift from using FMI to English in the Algerian HE?

All 08 interviewees were overall supportive of the shift to EMI in the Algerian tertiary education. They viewed it as a positive step towards development and progress in knowledge, asserting that it should have been implemented earlier. Notably, two interviewees stated that when attending international conferences, North Africans, including Algerians, are the weakest at using English. Interviewee 3 expressed a negative attitude towards French since it is the language of colonialism, despite relying on it. The interviewees also mentioned that they have learned many new things during this short EMI transition period. All computer science teachers interviewed supported EMI since most documentation in their field is in English. However, the interviewees highlighted that adapting to this change is challenging and takes time. Interviewee 1 expressed concerns about the ideologies behind this decision and how would unfold. Interviewee 3, a mathematics teacher, argued that some

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

mathematics modules should be taught in Arabic since it requires the students to understand and to be more focused. These responses reflected a mix of perspectives, embracing change while acknowledging the challenges.

**Question 04:** How has the introduction of EMI influenced your teaching experience?

All the interviewed teachers asserted that they essentially had to start anew by adapting their lesson plans, course content, oral presentations, explanations, and assessments to be delivered in English, which they considered challenging and a time-consuming process. They had to accurately translate and verify the use of Anglo-Saxon terminologies related to the fields of Math and CS. Additionally, they had to ensure communication with students via email in English. Based on the responses, it is evident that the transition to EMI has profoundly impacted their teaching practices and experiences, as this academic language policy shift necessitated a complete overhaul.

**Question 05:** Have you received any specific training or professional development to teach in English?

Since the English department at the University of Ain Temouchent Belhadj Bouchaib offered training in English, only two interviewees attended. They argued that it focused on grammar, listening, and reading skills rather than speaking and communication skills. One interviewee argued: *“We were combined with all scientific specialties and taught vocabulary and terminologies not relevant for my specialty. I felt it was not helpful, so I quit.”* (translated by the researcher). The six other teachers who did not attend this training justified that they had other commitments. However, all of them had studied English courses at an intensive center before the decision to shift to EMI. Overall, the training was aimed at improving general English proficiency rather than focusing on ESP and preparation for the shift to EMI, which the interviewees found unfulfilling for transitioning to teach in English.

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

**Question 06:** As a teacher who used to teach in French, what are the challenges that you are facing when shifting to use English? And how do you intend to overcome them?

Interviewee 01 asserted that teaching in English itself is challenging since they were not used to it. Particularly, the problem lay in the efficacy of explaining concepts not being the same as in French when delivering lectures. Interviewees 02 and 05 stated that they did not find appropriate procedures to follow in preparing lessons, translating materials, and conducting proper, high-quality scientific research in English due to the lack of English documentation in the fields of Math and CS in Algeria. Interviewees 04 and 06 claimed to face comprehension difficulties, issues with pronouncing words, and challenges in presenting since they had never presented in English publicly. Interviewee 07 faced difficulties in finding the exact translation used by Anglophone sources. For instance, the module “Structure Machine” in French cannot be directly translated as “Machine Structure” but should be “Computer Structure” in English. Interviewee 08 highlighted difficulties in communicating with students, claiming: *“Once I told a student ‘Get out’, he thought it was a bad word, so he consulted the department. I explained to the department that I requested him to leave”* (translated by the researcher). As for solutions, all interviewees included strategies like using “Google Translate” to check the pronunciation of words and websites like “DeepL” for translations. Memorizing common classroom phrases, and practicing presentations, before delivering them. The responses from the interviewees highlight several significant challenges faced by teachers transitioning from FMI to EMI. To address the challenges, the interviewees have adopted some strategies. However, it is evident that these strategies are not sufficient, and more comprehensive support is needed to help teachers and facilitate a smoother transition to EMI.

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

**Question 07:** According to you, what challenges do students encounter when using EMI?

All the interviewees claimed that students encountered difficulties with any foreign language since their educational background involved Arabic as MOI before entering university. Therefore, challenges had existed even when French was MOI. Interviewee 04, a mathematics teacher stated that some students struggled to comprehend the courses, prompting them to request translated copies from her. According to Interviewee 05, students found it challenging to find English books related to their specialties in the university library, as most resources were in French. As for Interviewees 06 and 08 asserted that students faced difficulties in comprehending exam subjects, specifically the questions. Based on these responses, it is evident that students encounter significant challenges in adapting to foreign languages, whether French or English, as MOI. These challenges encompass comprehension difficulties and difficulty accessing relevant resources specific to their fields of study.

**Question 08:** What strategies or techniques have you found most effective in facilitating students' comprehension and engagement with scientific content delivered in English?

All the interviewed teachers claimed that they used the languages that students best comprehend. Most of them declared that the language is not the primary goal in technical and scientific fields. They stated that they employed repetition and translation from English to French and Arabic while explaining concepts and writing on the board, allowing students to benefit more. One interviewed teacher added that she primarily explained in English and Arabic, avoiding the use of French since most first-year students entered university with proficiency only in Arabic and introducing another language could potentially confuse them. While another teacher asserted that while explaining, he wrote down the technical terminologies used along with their explanations. From these responses, we can infer a range of strategies used by teachers to facilitate students' comprehension with scientific content delivered in English.

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

**Question 09:** From your perspective, what benefits does English offer as a MOI for the university?

All the interviewees stated that English as an international language is the language of scientific research, enabling researchers to access a broader range of documentation and resources. One computer science teacher claimed that English is the relevant language for their field, and it would help students continue their studies abroad and have more employment opportunities. However, one interviewed teacher mentioned that despite its advantages, the benefits might not be immediately apparent as they are still in the initial stages of this transition. These responses highlight the interviewees' recognition of the significant benefits that EMI offers in HE. They acknowledge its global status as an international language, its prevalence in scientific research and documentation, and for students, the ability to pursue further studies abroad and increased employment opportunities.

**Question 10:** Could you provide suggestions to enhance the integration and seamless transition of EMI in scientific fields?

The interviewed teachers cited several strategies, such as providing training to teachers on effective English language teaching, particularly focusing on classroom communication. They also suggested offering intensive English courses for students. Additionally, they recommended sending teachers abroad for immersive training programs to experience EMI firsthand, improve their teaching in English, and conduct high-quality scientific research in English. Furthermore, they emphasized the need to enrich university libraries with English books in scientific fields such as Math and CS. They proposed collaborating with the English department to enhance teachers' language proficiency, while the Math and CS department could contribute their subject expertise and technological resources. These insightful



## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

suggestions demonstrate a comprehensive approach, noting that this academic language policy shift take time and should be implemented progressively.

### **3.2.3 Classroom Observations Analysis**

Classroom observations offer valuable insights into the actual implementation of EMI inside the classroom. Therefore, the researcher conducted 13 observation sessions across different modules and different teachers in three different classroom settings: courses (lectures), tutorials and practical sessions. The analysis focuses on various aspects to identify the challenges faced during the EMI implementation process.

- **Language Use:** This aspect aimed to observe the language practices used by both teachers and students during the instructional sessions. Across all observed sessions, English was the written language employed on the board, in the majority of course lessons, tutorial sheets, students' notebooks, and university computers (see Appendices 12, 13, 14). In terms of oral communication, teachers predominantly used French and English, with some instances of AA. In contrast, students primarily expressed themselves in AA, with some English and minimal French, particularly for numerical expressions. This suggests that the EMI practice involved the use of written materials in English, while oral communication involved a mix of languages, potentially to facilitate teacher delivery of the course content, communication between the teacher and students, and understanding and engagement of students who seemed more comfortable with Dialectal Arabic.
- **Teacher's Proficiency in Content Delivery in English:** The purpose was to observe whether teachers delivered content effectively in English and their ability to convey complex concepts using the language. The teachers' language use could be clearly observed during lectures sessions, as they delivered lessons and explanations more extensively compared to other types of sessions. Among all the teachers observed, only

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

three teachers explained the lessons effectively in English, with some repetition in AA and French to ensure comprehension. However, the remaining teachers primarily used English only for terminologies or reading instructions, while providing explanations in French and AA. The observations revealed varying levels of proficiency among teachers in delivering content effectively in English. While a small number of teachers exhibited a strong command of English and made efforts to use it predominantly during instruction, the majority faced challenges in conveying complex concepts solely in English, potentially due to language barriers and lack of English language proficiency in the fields of Math and CS.

- **Materials and Resources:** The purpose was to observe the use of specific materials or resources designed to aid in EMI implementation. Only three teachers used data shows and PowerPoint presentations, which supported content delivery in English and enhanced students' comprehension. However, in most sessions, teachers solely relied on the board and chalk traditional method, despite the lecture rooms being equipped with projectors and specific background projection facilities. Certain modules required visual aids and projections for better explanation; however, teachers preferred drawing on the board and verbally describing concepts to students. This led to a negative attitude among students. It is evident that the limited use of technological aids and visual resources by the majority of teachers hindered the effective implementation of EMI, posing challenges, particularly in modules that required visual representations or demonstrations.
- **Teacher-Student Interaction:** In this aspect the researcher observed how students and teachers interacted with each other effectively, and if there were any challenges or reluctance in expressing themselves in English. Students appeared hesitant to interact in English, often resorting to AA or remaining silent when the teachers posed questions.

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

When some students attempted to ask a question in English, they struggled to express themselves clearly. However, in sessions such as tutorial sessions or practical sessions where the teachers explained in AA, students interacted highly with the teachers. The observed teacher-student interactions revealed that while teachers made efforts to deliver content in English, translanguaging to other languages was needed to facilitate lesson delivery and ensure comprehension among students who exhibited reluctance and difficulties in expressing themselves in English. This could be attributed to factors such as limited English proficiency, a lack of confidence, or a general discomfort with using English.

- **Student Engagement:** Student engagement during discussions and activities was observed to be low. In most sessions, only 3 to 5 students out of the entire class actively participated, while the majority remained passive or disengaged. This lack of active participation from most students raises significant concerns about the effective implementation of EMI, and it could be attributed to various factors. Firstly, students may have faced difficulties comprehending the content delivered in English. Secondly, the teaching methods employed by teachers may not have been effective in fostering active engagement. Lastly, students may have lacked motivation or confidence to participate and express themselves.
- **Classroom Environment:** In this aspect, the focus was on observing the overall classroom environment during the sessions and to assess the comfort level of students. Most of the classroom environments captured in the 13 observed sessions were of average comfort levels. Some students expressed discomfort and a negative attitude when certain teachers solely explained in French, complaining at the end of the session that they did not understand. However, in sessions when the teachers explained in English, Arabic and French, students appeared more receptive and exhibited a normal,

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

comfortable attitude. This suggests that the strategic use of languages familiar to students, while considering their language proficiencies, can create a more inclusive and supportive learning environment, fostering a positive attitude towards the use of EMI.

- **Difficulties Encountered:** The observations revealed several difficulties encountered during the sessions. Comprehension difficulties emerged as a significant challenge, with some teachers facing challenges in comprehending English. Similarly, some students struggled to understand the lessons or exercises when presented or explained solely in English. Additionally, most of the teachers exhibited confusion between French and English, mixing the two languages, especially when it came to pronunciation. The observations also highlighted vocabulary difficulties; for example, the teacher and students in one of the observed sessions did not understand the word “trainee” and got mixed up between the words “trainers” and “trainees”. Challenges were also observed in speaking and oral presentation skills, as well as the ability to convey complex concepts clearly and effectively in English by some teachers. These difficulties encountered during the sessions underscored a lack of English proficiency among some teachers and students, highlighting the need for intensive English language training programs for both teachers and students.

### **3.3 Summary of the Main Results**

The analysis from the three research instruments - the questionnaire, interviews, and classroom observations - using quantitative and qualitative methods, unveiled insightful results. The analysis of data obtained from the questionnaire administered to 125 students of Math and CS revealed that students seem to have a positive attitude towards using English in scientific fields. Many perceived EMI as beneficial for learning, as English offers numerous opportunities, though challenging. Limited vocabulary, difficulty with scientific terminology, and comprehension issues were the main difficulties faced by majority of the

### **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

students. Unfortunately, the majority of students were unaware of the MESRS's English proficiency platform introduced in 2023, and only a small number benefited from the platform. Additionally, a majority felt that pre-university English education was inadequate for HE, as they maintain that it focused on grammar while neglecting oral skills. Meanwhile most found the department's ESP courses supportive, indicating that they benefited from them.

From the teachers' interviews, it was evident that they were overall supportive of the shift to EMI due to the benefits English offers to the Algerian HE and the Algerian researchers. However, major challenges they faced included preparing lessons and explaining concepts in English, as well as addressing student comprehension issues during lectures and exams. A lack of relevant training on teaching in EMI and ESP was a key issue raised. Commonly used strategies by teachers were translanguaging, providing translations, and repetition.

The classroom observations provided insights into the actual implementation of EMI, especially in scientific fields like Math and CS. While written materials were in English, oral instruction involved a mixture of English, French, and Arabic. Only a few teachers could effectively deliver full lessons in English without heavily relying on translanguaging practices. Limited use of technology and visual aids to support EMI implementation was noted. Student engagement was low, potentially due to comprehension difficulties and ineffective teaching methods. Signs of discomfort among students were observed when French was solely used by some teachers, while a more positive attitude was evident when teachers strategically used multiple familiar languages. Challenges related to vocabulary, comprehension, and pronunciation were apparent for some teachers and students. Despite the fact that the implementation of EMI is still in its initial stages, we can conclude that the use of EMI at the university level is progressing well.

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

Overall, the results from the whole research have confirmed the hypotheses stated in the introduction. The lack of English proficiency for both students and teachers, as well as the lack of training to teach in English language and ESP for teachers, posed significant challenges during the shift to and adoption of EMI. The second hypothesis, which suggested translanguaging as a solution, was also confirmed, as teachers commonly employed translanguaging practices, using students' familiar languages to facilitate comprehension and support the EMI implementation process, however part of the hypothesis was refuted, which posited that technological tools would be used in the classroom to aid instruction, as most teachers did not incorporate technology into their teaching practices.

### **3.4 Some Suggestions & Pedagogical Recommendations**

The shift to EMI in the Algerian tertiary education, especially in scientific fields like Math and CS, poses several challenges. To address these challenges and improve the adoption and seamless shift to EMI in the Algerian universities, as well as create a more supportive environment, many strategies are recommended. These strategies are divided into strategies outside the classroom environment, which involve measures that can be taken at the institutional and community level to support and facilitate the successful implementation of EMI, and strategies inside the classroom environment pertain to pedagogical strategies and approaches implemented by teachers.

#### **3.4.1 Outside the Classroom**

##### **➤ Increase Awareness Campaigns**

These refer to organized efforts to promote the use of EMI among stakeholders and the broader community. These campaigns aim to raise awareness, address concerns, and foster a deeper understanding of EMI's role in academic and professional contexts. Universities and educational institutions should organize conferences and seminars, inviting experts and policymakers to discuss the significance of EMI in HE, especially in scientific

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

fields. Collaboration with local educational institutions, and communities is also crucial to promote the value of English language proficiency through workshops, presentations, and information sessions.

### ➤ **Expanding University Libraries with English Language Resources**

At the tertiary level, the university library plays a crucial role in facilitating research activities. To effectively support the transition to EMI, it is essential to enrich the university libraries with a diverse range of English language academic documents. This includes textbooks, articles, dissertations, journals, and research publications across various scientific and non-scientific fields. Expanding the library's collection would provide students and teachers with access to relevant and up-to-date resources, benefiting their learning and teaching processes.

### ➤ **Cross-Cultural Collaborations**

To facilitate the successful implementation of EMI, it is essential to encourage cross-cultural collaboration between students, teachers and other faculties internationally. Establishing partnerships and exchange programs with universities in English-speaking countries or institutions that have effectively adopted EMI can be highly beneficial. Such collaborations not only provide opportunities for language immersion and cultural exchange but also enable the sharing of best practices and insights into successful EMI implementation strategies. Furthermore, it can help attract international students and prepare domestic students for global opportunities and experiences abroad, hence, contribute to improve the university's rankings and reputation at the international level.

### ➤ **Teacher Training**

To improve the transition to EMI, professional development opportunities are needed for teachers to enhance their English language proficiency and EMI teaching strategies. This should entail a pedagogical side on how to effectively teach in English, including classroom

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

communication techniques. Additionally, providing opportunities for teachers to participate in immersive programs abroad could offer firsthand experience with EMI environments, further developing their skills for successful EMI implementation.

### **➤ Establishing Clubs and Fostering Interdepartmental Collaboration**

To enhance the implementation of EMI and promote ESP, establishing subject-specific clubs for students and teachers can be highly beneficial. These clubs provide a supportive environment where participants can actively practice academic English while fostering scientific research. These clubs can include activities such as inviting guest speakers, subject matter experts, and organizing workshops. Moreover, fostering collaboration between the English department and other departments can be advantageous. The English department can contribute their language expertise, while the other departments can provide their subject-matter knowledge and resources. This interdepartmental collaboration can facilitate the development of tailored ESP courses and materials.

### **➤ Fostering ESP Specialization in English Departments**

To effectively support the implementation of EMI and enhance English language proficiency across various academic disciplines, universities should prioritize the development of ESP programs within their English departments. These departments should focus on producing more graduates specialized in ESP tailored to different fields of study. As most universities typically have an intensive language center dedicated to language learning, employing the ESP specialists graduating from such programs to teach ESP courses would facilitate the development of ESP proficiency among students, teachers, and administrative staff across various disciplines.

### **➤ Curriculum Revisions at the Pre-University Levels**

To better prepare students for the transition to EMI at the tertiary level, it is crucial to review and revise the English language curriculum at the pre-university stages, including



## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

primary, middle, and secondary schools. This revision should aim to align the curriculum with the specific language needs and competencies required at the university level, not only in scientific disciplines but also in non-scientific fields. One key area of focus should be the development of oral skills. The pre-university curriculum should emphasize practical communication skills, such as speaking, listening comprehension, and academic discourse, to equip students with the necessary proficiency to actively participate and engage in EMI classrooms.

### **3.4.2 Inside the classroom**

#### **➤ Translanguaging Practices Inside the EMI Classroom**

In EMI classrooms, where the primary focus is on delivering content rather than language instruction, it is recommended that teachers strategically employ translanguaging practices, which involves the judicious use of multiple languages that students and teachers are familiar with and proficient in, such as English, Arabic, and French in the Algerian context, to facilitate comprehension, foster interaction and engagement during sessions. Leveraging the linguistic resources available to students can significantly improve their understanding of the subject matter, ultimately leading to better academic performance and results.

#### **➤ Integration of Educational Technology**

The incorporation of educational technology tools, such as multimedia presentations, digital resources, online platforms, and visual aids, is crucial for enhancing lesson delivery and students' comprehension within the EMI context by making it more engaging and interactive. These tools not only offer students a dynamic learning experience with access to a variety of resources and different ways to engage with the material, but they can also facilitate student-teacher interaction in a supportive environment.

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

### **➤ Enhancing ESP Courses Delivery**

ESP courses provide invaluable support for students by equipping them with the English language skills required for their chosen fields of study. However, limiting ESP courses to a single semester with only one session per week often proves insufficient to adequately address students' needs and lacks. Increasing the frequency of ESP sessions would allow for a more comprehensive exploration of specialized vocabulary, terminology and communication styles relevant to the specific academic domain.

### **3.5 Limitations of the study**

No study can be considered perfect, as there are always challenges and potential room for improvement. The first limitation encountered in this study is time constraints. The decision to transition to EMI was relatively recent, in the academic year 2023-2024, thus, the study captured the results of only one academic year, which may not fully reflect the long-term impacts, challenges, and opportunities of this academic language policy shift. Additionally, the study was conducted at only one university and focused on a single scientific specialty, potentially limiting the generalizability of the findings.

The data collection and analysis phases were not without limitations. The process was hindered as first-year students were not initially aware of the importance of answering the questionnaire, requiring the researcher to remind them repeatedly, which consumed approximately two months to collect their responses. The questionnaire was addressed to students in French, interview results were reported in French and AA, and then translated into English. Some issues might arise in accurately translating the results from French to English.

The study was also limited by privacy concerns and regulations, as the researcher was unable to record or take videos during the classroom observations to accurately capture language use. Instead, she relied on taking notes, which posed challenges, particularly in

## **Chapter Three: Data Analysis, Suggestions and Recommendations**

---

documenting spoken language accurately. Additionally, certain teachers did not allow the researcher to attend observation sessions, possibly due to apprehension about being observed. Some teachers as well did not consent to have their interviews audio-recorded, which required the researcher to write down their answers and remember each detail.

### **3.6 Conclusion**

This chapter presented a quantitative and qualitative analysis of data collected through three research instruments namely the online questionnaire administered to students, face-to-face interviews with teachers, and classroom observations. The analysis aimed to examine the transition to and implementation of EMI in the fields of Math and CS. The chapter summarized the key findings and tested the previously established research hypotheses in the introduction. It then proposed recommendations and suggestions to facilitate the seamless integration of EMI at the university level.

# **General Conclusion**

## General Conclusion

---

As English becomes the dominant global language, the implementation of EMI has gained interest among many language policymakers in non-Anglophone countries. Algeria is one of the countries that officially implemented EMI in HE, replacing French, starting in the academic year 2023-2024. Therefore, this research study investigated the implementation of EMI in scientific fields, specifically the Math and CS department at the University of Belhadj Bouchaib in Ain Temouchent, Algeria. The research instruments employed were an online questionnaire administered to 125 first-year students, interviews with 8 first-year teachers, and classroom observations across 13 sessions.

The current research work consists of three main chapters. Chapter one provided the theoretical framework, exploring the relationship between language and education, language planning and policy, the status of languages in Algeria, English as a global language, and the rise of EMI in Algeria and worldwide. Chapter two outlined the research methodology, describing the context, participants, data collection instruments, and procedures. Lastly, chapter three presented an in-depth data analysis, interpretations, and findings from the three research instruments to confirm or reject the previously formulated hypotheses and provide recommendations to foster EMI implementation.

The findings revealed positive students' attitudes towards EMI for scientific fields but also highlighted challenges like limited vocabulary, difficulties with terminology, and comprehension issues. Interviews showed teachers were supportive of the EMI shift but faced obstacles in teaching effectively in English and addressing students' comprehension. Classroom observations uncovered the prevalent use of translanguaging practices, low student engagement, and limited technology integration to support EMI implementation. The findings confirmed the first hypothesis and the second hypothesis but refuted part of the second hypothesis regarding the integration of technology. The study recommended various strategies, including increasing awareness campaigns, expanding English resources in

## **General Conclusion**

---

university libraries, fostering cross-cultural collaborations internationally, providing teacher training on EMI pedagogy, promoting ESP specializations in English departments, revising pre-university English curricula, strategically using translanguaging, and integrating educational technology inside the classroom.

This study provides a comprehensive understanding of the initial experiences, challenges, and opportunities surrounding the academic language policy shift to EMI in the Algerian HE. Its findings and recommendations serve as a foundation for institutions, policymakers, and educators to collaboratively work towards creating an environment that fosters effective EMI implementation and supports students' academic success. The findings of this research also open the door for future studies on the long-term impacts of EMI implementation across different Algerian universities and disciplines. Further research is needed to evaluate the effectiveness of the proposed recommendations and develop comprehensive strategies for successful nation-wide EMI adoption. Additionally, investigations into innovative pedagogical approaches, material design, and assessment methods tailored for EMI contexts would contribute valuable insights.

# References

## References

---

- Aitsiselmi, F. (2012). Language planning in Algeria: Linguistic and cultural conflicts. In K. Salhi (Ed.), *French in and out of France*. UK : Peter Lang.  
<https://doi.org/10.3726/978-3-0353-0116-8>
- Al Zumor, A.Q. (2019). Challenges of using EMI in teaching and learning university scientific disciplines: student's voice. *International Journal of Language Education*, 3(1), 74-90. Doi:10.26858/ijole.v1i1.7510
- Ammon, U., & McConnell, G. (2002). *English as an academic language in Europe*. Frankfurt am Main, Germany: Peter Lang.
- Azzouz, A., & Khayen, M. (2014). *بين شرعية المطلب: العدالة اللغوية في المجتمع المغربي و مخاوف التوظيف السياسي* [Linguistic justice in the Maghreb society: Between legitimacy of demand and fears of political employment]. Doha: Arab Center for Research and Policy Studies.
- Belmihoub, K. (2018). English in a multilingual Algeria. *World Englishes*. DOI:10.1111/weng.12294
- Benrabah, M. (2013). *Language conflict in Algeria: From colonialism to post-independence*. Bristol: Multilingual matters. P. 154.
- Berger, A.E. (2002) Introduction. In A.E. Berger (ed.) *Algeria in Others' Languages*, 1-16. Ithaca and London: Cornell University Press.
- Bouhmama, S., & Dendane, Z. (2018). Language use and language attitudes among Algerian students. *Journal of Humanities and Social Science (IOSR-JHSS)*, 23(5), 69–77.  
<https://doi.org/10.9790/0837-2305086977>
- Briggs, J. G., Dearden, J., & Macaro, E. (2018). English medium instruction: Comparing teacher beliefs in secondary and tertiary education. *Studies in Second Language Learning and Teaching*, 8(3), 673–696. <https://doi.org/10.14746/ssllt.2018.8.3.7>



## References

---

- Nunan, D. (1997). *Research Methods in Language Learning*, Cambridge: Cambridge University Press.
- Cooper, R. L. (1989) *Language planning and social change*. Cambridge (UK): Cambridge University Press.
- Crandall, J., & Tucker, G. R. (1990). Content-based language instruction in second and foreign languages. In S. Anivan (Ed.), *Language teaching methodology for the nineties* (pp. 83-96). Ann Arbor: University of Michigan.
- Cremin, L.A. (1976). *Public Education*. (Basic Books).
- Daoudi, A. (2018). Multilingualism in Algeria: between ‘soft power’, ‘Arabisation’, ‘Islamisation’, and ‘globalisation.’ *Journal of North African Studies*, 23(3), 460–481. <https://doi.org/10.1080/13629387.2017.1391962>
- Dearden, J. (2015). English as a medium of instruction —a growing global phenomenon. London: British Council. Retrieved from [https://www.britishcouncil.org/sites/default/files/e484\\_emi\\_cover\\_option\\_3\\_final\\_web.pdf](https://www.britishcouncil.org/sites/default/files/e484_emi_cover_option_3_final_web.pdf)
- Dearden, J., & Macaro, E. (2016). Higher education teachers’ attitudes towards English medium instruction: A three-country comparison. *Studies in Second Language Learning and Teaching*, 6, 455-486. <https://doi.org/10.14746/sllt.2016.6.3.5>
- Djitè, P. (1992) 'The Arabisation of Algeria: Linguistic and socio-political motivations'. In: Coulmas, F. (Ed.) *Language and Economy*. Oxford: Blackwell, p. 15-28.
- Dube, L. & Ncube, B. (2013). Language policy and Linguistic Rights in Post-Colonial Zimbabwe: The case of IsiNdebele. *Greener Journal of Social Sciences*, 3(5), 249-255.

## References

---

- El Bilad TV. (2019). *Minister of Higher Education and Scientific Research: Scientific research in the world is conducted in English, not French* [Video]. YouTube. Retrieved from <https://youtu.be/6jyCiVwcqRo?si=QGJAQJq0iNyfdZJZ>
- Ferguson, C. A. (1992). Foreword to the first edition. In B. B. Kachru (Ed.), *The other tongue* (pp. xiii–xvii). Urbana, IL: University of Illinois Press.
- Fishman, J. A. (1974). Language modernization and planning in comparison with other types of national modernization and planning. In J. A. Fishman (Ed.), *Advances in Language Planning* (pp. 79-102). The Hague: Mouton.
- Gordon, D. C. 1966. *The Passing of French Algeria*. London: Oxford University Press.
- Graddol, D. (1997). *The future of English*. London: The British Council
- Guemide, B. (2023). Switching from French to English use in Algerian universities: An ideological, or academic choice?. *Eurasian Journal of Language Teaching and Linguistic Studies*, 3(1), 351-373.
- Haarmann, H. 1990. Language planning in the light of a general theory of language: A methodological framework. *International Journal of the Sociology of Language*, 86, 103-126.
- Hamzaoui, C. (2021). The necessity of learning English in multilingual Algeria: Belhadj Bouchaib University as a case study. *Global Journal of Foreign Language Teaching*. 11(3), 185-194. <https://doi.org/10.18844/gjflt.v11i3.5586>
- Haugen, E. (1959). Planning for a standard language in modern Norway: Anthropological linguistics. Vol 33.
- Haugen, E. (1966a). Linguistics and Language Planning, in *Sociolinguistics*, W. Bright (ed.) (The Hague: Mouton), 50-71.
- Hoffman, C. (1991). *An Introduction to Bilingualism*. UK: Longman.

## References

---

- Kaplan, R. B., & Baldauf, R. B., Jr. (1997): *Language Planning from Practice to Theory*. Clevedon: Multilingual Matters.
- Kaplan, R. B., & Baldauf, R. B. (2003). *Language and language-ineducation planning in the Pacific Basin*. New York: Springer Publishing Company.
- Lo Bianco, J. (2010). Language Policy and Planning. In N. H. Hornberger & S. L. McKay (eds.), *Sociolinguistics and language education* (pp. 143-176). Clevedon, GBR: Multilingual Matters.
- Macaro, E. (2015). English medium instruction: Time to start asking some difficult questions.
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*, 51(1), 36–76. <https://doi.org/10.1017/S0261444817000350>
- Mami, N. A. (2013). Teaching English under the LMD Reform: The Algerian Experience. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 7(4), 910–913.
- Marouf, N. (2017). English in the Algerian primary schools between necessity and contingency. *Ennas Journal*, 11, 11-30. Retrieved from <https://www.asjp.cerist.dz/en/downArticle/572/4/1/131017>
- Marsh, D. (2008). Language Awareness and CLIL. In N. H. Hornberger (Ed.), *Encyclopedia of language and education* (pp. 1986-1999). Boston, MA: Springer US.
- McGroarty, M. (1997) Language policy in the USA. In W. Eggington and H. Wren (eds) *Language Policy* (pp. 1–29). Amsterdam: Benjamins.

## References

---

- Medfouni, I. (2020). *International Aspirations, French Legacies and Translingual Practices: Exploring the Potential Implementation of EMI in Algerian Universities. (Unpublished PhD thesis), University of Portsmouth.*
- MERIC-Net. (2019). *The higher education system in Algeria: National report.* Co-funded by the Erasmus+ Programme of the European Union. Retrieved from [http://www.meric-net.eu/files/fileusers/National\\_Report\\_template\\_MERIC-NET\\_Algeria\\_English.pdf](http://www.meric-net.eu/files/fileusers/National_Report_template_MERIC-NET_Algeria_English.pdf)
- MEXT. (2015). *Heisei 25 nendo no daigaku ni okeru kyouiku nai you tou no kaikaku joukyou ni tsuite* [About the state of affairs regarding university reforms to education in 2013]. Retrieved from [http://www.mext.go.jp/a\\_menu/koutou/daigaku/04052801/\\_icsFiles/afieldfile/2016/05/12/1361916\\_1.pdf](http://www.mext.go.jp/a_menu/koutou/daigaku/04052801/_icsFiles/afieldfile/2016/05/12/1361916_1.pdf)
- Ricento, T. (2006b). *An Introduction to Language Policy: Theory and Method.* Malden, MA: Blackwell
- Richards, J. (2001). *Curriculum Development in Language Teaching.* Cambridge: Cambridge University Press.
- Rose, H., McKinley, J., Xu, X., & Zhou, S. (2020). *Investigating policy and implementation of English medium instruction in higher education institutions in China: A report by EMI Oxford research group in collaboration with the British council in China.* British Council.
- Roux, C.S.L. (2017). Language in education in Algeria: A historical vignette of a ‘most severe’ sociolinguistic problem. *Language & History*, 60(2), 112-128. <https://doi.org/10.1080/17597536.2017.1319103>
- Saidani, R., & Afkir, M. (2023). English medium instruction from the perspective of university students in Algeria. Volume : 08/ N° : 03, 297-311. <https://www.asjp.cerist.dz/en/downArticle/351/8/3/223069>

## References

---

- Schiffman, H.F. (1996). *Linguistic Culture and Language Policy*. London: Routledge.
- Siddiqui, K. A., Syed, H., & Sahito, Z. (2021). Challenges and strategies of university students in English-medium instruction (EMI) classes: A case study. *Foro Educacional*, 36, 9–25. <https://doi.org/10.29344/07180772.36.2544>
- Smit, U., & Dafouz, E. (2012). Integrating content and language in higher education: An introduction to English-medium policies, conceptual issues and research practices across Europe. *AILA Review*, 25, 1-12. <https://doi.org/10.1075/aila.25.01smi>
- Spolsky, B. (2004). *Language policy*. Cambridge, England: Cambridge University Press.
- Stoller, F. L. (2002b). Promoting the acquisition of knowledge in a content based course. In J. Crandall & D. Kaufman (Eds.), *Content-based instruction in higher education settings* (pp. 109-123). Alexandria, VA: TESOL.
- Thompson, G., & Mckinley, J. (2018). Integration of Content and Language Learning. In J. I. Lionatas (Ed.), *The TESOL Encyclopedia of English Language Teaching* (pp. 1-13). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118784235.eelt0634>
- U.S. Embassy Algiers. (2021). *The Opening of the University that Will change the Algerian Educational System*. [video]. URL: <https://www.youtube.com/watch?v=bzDyE2LOEJ4>
- Unterberger, B., & Wilhelmer, N. (2011). English-medium education in economics and business studies: Capturing the status quo at Austrian universities. *International Journal of Applied Linguistics*, 161, 90-110.
- Wächter, B., & Maiworm, F. (2014). *English-taught programs in European higher education: The state of play in 2014*. Bonn, Germany: Lemmens.
- Williams, D. G. (2015). A systematic review of English medium instruction (EMI) and implications for the South Korean higher education context. *ELT World online*, 1-23.

## References

---

- Wolff, H. E. (2006). Background and history – Language politics and planning in Africa. In A. Alidou, B. Boly, B. Brock-Utne, Y. S. Diallo, K. Heugh, & H. E. Wolff (Eds.), *Optimizing learning and education in Africa – The language factor: A stock-taking research on mother tongue and bilingual education in Sub-Saharan Africa* (pp. xx-xx). Association for the Development of Education in Africa (ADEA). Retrieved from [https://biennale.adeanet.org/2006/doc/document/B3\\_1\\_MTBLE\\_en.pdf](https://biennale.adeanet.org/2006/doc/document/B3_1_MTBLE_en.pdf)
- Wright, S. (2004): *Language policy and language planning: From Nationalism to Globalisation*. Basingstoke. Palgrave.  
<http://ndl.ethernet.edu.et/bitstream/123456789/8547/1/23.pdf.pdf>

# Appendices

## Appendix 1

The results of the online national poll posted on Facebook by the former Minister of higher education Tayeb Bouzid. Retrieved from

<https://www.facebook.com/share/p/97Bubg5JgvH3Qvfw/?mibextid=qi2Omg>


**Tayeb Bouzid - الطيب بوزيد** · 5 August 2019 · 🌐

---#النتائج#النهائية لعملية سبر الآراء حول#تعزيز استعمال اللغة الإنجليزية---

مثلما وعدتُ به بتاريخ 05 جويلية 2019، أنشُر اليوم النتائج النهائية لعملية سبر الآراء الذي أطلقتها وزارة التعليم العالي والبحث العلمي حول#تعزيز استعمال اللغة الإنجليزية في#الوسط الجامعي#والبحثي.

مواصلة في المسعى ذاته، وكما ذكرتهُ ضمن كلمتي خلال الندوة الوطنية للجامعات المنعقدة بتاريخ أول غشت 2019، فقد تمّ إهداء توجيهات لمديري مؤسسات القطاع من أجل#فتح#تقائير#موضوعي و#بناء بما يكفل الخروج بمخطط#عمل#متكامل بهذا الشأن.

Number of total views: 1.152.227  
 Number of voters: 94.741  
 Yes: 94.3%  
 No: 5.7%



تعزيز استعمال اللغة الانجليزية في قطاع التعليم العالي والبحث العلمي - Enhance the use of English language in the Higher Education & Scientific Research

94,741 responses

**National Poll - الاستطلاع الوطني**

QUESTIONS    RESPONSES    94,741

94,741 responses

Not accepting responses

Message for respondents

This form is no longer accepting responses

SUMMARY    INDIVIDUAL

3.6K    835    663

Like    Comment    Share



## Appendix 2

The ministerial order for all Algerian universities to use English and Arabic on the headings of official documents. Retrieved from <https://www.elbilad.net/s@n0iqdiar35034>

FROM : SP1-mesrs

FAK NO. :021914741

21 Jul. 2019 16:15 P1

الجمهورية الجزائرية الديمقراطية الشعبية  
وزارة التعليم العالي والبحث العلمي

الوزير

21 يونيو 2019

الجزائر في

رقم 477/خ.و.2019

السيدات والسادة

رؤساء مؤسسات التعليم العالي والبحث العلمي

**الموضوع:** رؤوس صفحات الوثائق الرسمية.

في إطار سياسة تشجيع وتعزيز استخدام اللغة الإنجليزية، ومن أجل مرتبة أمثل للنشاطات التعليمية والعلمية على مستوى قطاعنا، أطلب منكم إستعمال اللغتين العربية والإنجليزية في رؤوس جميع الوثائق الإدارية والرسمية.

وزير التعليم العالي والبحث العلمي  
الدكتور: بوزير تظييف



## Appendix 3

National forum to promote the status of English in universities across Algeria. Retrieved from <https://www.facebook.com/share/p/RmrGutVN8BmU3nSU/?mibextid=xfxF2i>

**الجمهورية الجزائرية الديمقراطية الشعبية**

**وزارة التعليم العالي والبحث العلمي**  
الوزير  
رقم ك.ك.و.ا.خ.و/2019

بالحزائر، في 08 و 09 2019

إلى السادة رؤساء الندوات الجهوية للجامعات

الموضوع: بخصوص تعزيز استعمال اللغة الإنجليزية.  
المرجع: نتائج الندوة الوطنية للجامعات المنعقدة بتاريخ أول غشت 2019.

في إطار مساعي دائرتنا الوزارية لتحسين مرئية النشاط التعليمي والبحثي لمؤسسات التعليم العالي الجزائرية، وكذا تفتحها على المحيط الدولي، وتطبيقا لنتائج الندوة الوطنية للجامعات المنعقدة بتاريخ أول غشت 2019، أبلغكم بأنه قد تقرر تنصيب فوج تفكير قطاعي، يضم مختصين في الميدان ومسؤولين بالإدارة المركزية، لتقديم مقترحات عملية بخصوص الموضوع.

في هذا الشأن، أطلب منكم اقتراح ستة (06) خبراء من الأساتذة والباحثين المختصين والمؤهلين، لاسيما في اللسانيات واللغة الإنجليزية، مع موافاتي ببياناتهم في أقرب الأجال (الاسم واللقب، الرتبة، المؤسسة، الهاتف والبريد الإلكتروني).

سأبلغكم لاحقًا بتاريخ تنصيب فوج التفكير القطاعي والذي يُنتظر أن يتم في غضون الأسبوع الثالث من شهر سبتمبر 2019.

للإشارة، سيتم، أيضًا، تنصيب فوج تفكير قطاعي مشترك، تحت إشراف دائرتنا الوزارية، يضم ممثلي قطاعات عدّة من أجل اقتراح مخطط عمل متكامل.

وإنفا من مساهمتكم الإيجابية، تقبلوا فاق التحيات.

وزير التعليم العالي والبحث العلمي  
الدكتور: محمد الشطيح



## Appendix 4

Another online survey to promote the status of English posted in Facebook by the former Minister of MESRS. Retrieved from

<https://www.facebook.com/share/p/2JwS8WKwx1mcFkp9/?mibextid=qi2Omg>



**Tayeb Bouzid - الطيب بوزيد** 18 Oct 2019 · 🌐

استبيان: تعزيز اللغة الإنجليزية في الجامعات الجزائرية -  
Survey: Enhance English in Algerian Universities

استبيان بخصوص التفكير ودراسة تعزيز استعمال اللغة الإنجليزية في التعليم العالي والبحث العلمي, وكيفية الشروع التدريجي في استعمالها في مجالات التكوين لاسيما في البحوث والدكتوراه. هذا الاستبيان جاء لتوسيع النقاش و وضع برنامج "شامل وكامل" الذي سيعرض بعد ذلك على الحكومة.

آرائكم مهمة جدا!

الطيب بوزيد  
وزير التعليم العالي والبحث العلمي  
الجزائر

-----

This survey is meant to involve all those who are interested to contribute to the project of promoting the use of English language in the Algerian universities. The results will be collected and then compiled, to finally be added to the action plan that is going to be addressed to the Government.

Your opinions matter!

Tayeb BOUZID  
Minister of Higher Education and Scientific Research  
Algeria

Link: <https://forms.gle/EbqfQdEYiU1Etrcm8>



docs.google.com  
استبيان: تعزيز اللغة الإنجليزية في الجامعات الجزائرية -  
Survey: Enhance English in Algerian Universities

1k 326 comments · 266 shares

Like Comment Send Share

## Appendix 5

The survey's results with the names of committee appointed to create a blueprint for enhancing the status of English in the Algerian universities. Retrieved from <https://www.facebook.com/share/p/W55X5GfxSb2dFRVd/?mibextid=qi2Omg>

 **Tayeb Bouzid - الطيب بوزيد** · 7 Nov 2019 · 🌐

نتائج الأستبيان: تعزيز اللغة الإنجليزية في الجامعات الجزائرية  
-Survey Insights : Enhance English in Algerian Universities

<http://bit.ly/EnglishAlgeria>

People's Democratic Republic of Algeria  
وزارة التعليم العالي والبحث العلمي  
Ministry of Higher Education and Scientific Research

نتائج الأستبيان: تعزيز اللغة الإنجليزية في الجامعات الجزائرية  
-Survey Insights : Enhance English in Algerian Universities

هل تعتقد أن اللغة الإنجليزية يجب أن تدرس في 1.  
2,884 responses



- الدكتوراه - Doctorate
- ماستر - Master
- ليسانس - Licence
- جميع المستويات - All levels

drive.google.com

نتائج الأستبيان\_ تعزيز اللغة الإنجليزية في الجامعات الجزائرية.pdf

👍❤️ 3.1k · 279 comments · 427 shares

👍 Like · 💬 Comment · 📧 Send · ➦ Share

# Appendix 6

Plans for enhancing the status of English in the Algerian universities. Retrieved from <https://www.facebook.com/share/p/kVLqgWilj11VGv42/?mibextid=qi2Omg>

**الطيب بوزيد - Tayeb Bouzid** 17 Dec 2019

--- التقرير النهائي ---  
التوصيات الخاصة بتعميم اللغة الإنجليزية في الجامعات الجزائرية  
الثلاثاء 17 ديسمبر

#English\_in\_Algeria  
#Algerian\_Universities  
#Ministry\_of\_Higher\_Education\_and\_Scientific\_Research  
#Recommendations

الجمهورية الجزائرية الديمقراطية الشعبية  
وزارة التعليم العالي والبحث العلمي  
الهيئة القطرية لتعزيز اللغة الإنجليزية

**التقرير النهائي**

**I المقدمة :**

إن ملاحظة ما يحدث في العالم في مجال الاستعدادات العلمية تعد لغة الإنجليزية في الحدائق باعتبارها "الفتح" الذي يفتح آفاق التواصل في مختلف قطاعات التشكلات هي القطاع العلمي والبحث العلمي، نقل جميع الباحثين على أنها لغة من اللغات الأكثر تشاركا، والأكثر استخداما والتي تتيح تحسين نظر وأكثر مرتبة على الصعيد العالمي.

**II أهداف اللغة الإنجليزية في الجامعة؛ لماذا الآن؟**

تعد الإنجليزية اللغة الأكثر تريبا في العالم باعتبارها "لغة الجبهة" أو "لغة ثالثة" بحيث 90% من المستويات العلمية على المستوى الدولي تحول باللغة الإنجليزية، و 80% من البعثات الموجودة والمشاركة في اللغة الإنجليزية في جميع قطاعات التشكلات والأصناف ذات العائلات اللغوية، أصبحت اللغة الإنجليزية حقبة "لغة مشتركة"، وهو ما يعزز من ضرورة تدعيم مكشباتها اللغوية بتتبع تعلم اللغة الإنجليزية.

يراجع قطاع التعليم العالي بجزائر العديد من التحديات والتي يعاني بالفعل من نقص كبير فيما يخص التدريس باللغة الإنجليزية (الإكسابات والتأويلات والجامعات)، ونخص بها أساسا:

1. نقص تشكيلة المتخرجين الجزائريين في زمن تولى سوق العمل
2. تعوير العلاقات الدولية والإخرط في القضاء الدولي في مجال التعليم العالي والبحث
3. نقصان لكوادر ذات جودة ونسبية وحداثة ذات صلة مباشرة بعالم المؤسسات وقطاع البحث والإنجاز
4. الكتابة أوقات التكمو في العولمة
5. جعل التشكيلة الأكاديمية والعلمي الخار التي موديا في جميع التخصصات
6. جعل حركة الطلبة الجزائريين وأمامهم في مجموعات بحث دولية
7. تشجيع الحركات نحو الخارج من خلال توفير التكوين الذي يستجيب للمتطلبات الدولية
8. منح التكنولوجيات الحديثة في التعليم العالي، مما يفتح آفاق أمام العديد من فرص التعليم والتعلم

**III تقرير عام عن المؤسسات الجامعية الجزائرية**

التوجه المتخصص عليها من تحلل الاستمارات والامتحانات والقبائل التي تمت على مستوى 26 مؤسسة جامعية سمحت باستخلاص مايلي:

1. توفر تدريس اللغة الإنجليزية ولكن ليس في جميع المستويات تظهر كلها كقائمة عرضية التي يتم في غالب الأحيان بالدرجات، فائدة على ترجمة الموضوع / النسخة لاكتساب المستطقات
2. على مستوى القدرات التي تمت زيارتها إذا تم تقييمها فهي تتركز بكون أهداف محددا، ويكون منهجية واضحة مسبب المجموع النهائي الذي يعادل 01 ما 30 في الأنواع
3. الإنشاء، فالتقييم يواظب، يتقدمون بصورين متخصصين يقومون بترجمتها لغة الطلبة من العربية نحو الإنجليزية أو من الفرنسية نحو الإنجليزية، وأهداف من ذلك هو تقييم مستطقات التخصص

4.4k reactions • 870 comments • 2.3k shares

Like Comment Send Share

## Appendix 7

### Students' Questionnaire in English

#### Questionnaire for L1 Computer Science and Mathematics Students

Dear Participants,

This questionnaire is part of a Master's degree research study that aims to examine the recent language shift in higher education, specifically in scientific fields. This shift entails a transition from French to English as the principal medium of instruction. Your valuable perspectives on this language shift are crucial to this study. Hence, you are kindly invited to fill out this questionnaire.

**N.B.:** The terms “language of instruction” and “medium of instruction” refer to the language used for teaching and learning in educational institutions. They represent the primary language used by teachers to share knowledge, convey information, and interact in the classroom.

**1). Gender:**

- Male
- Female

**2). Your speciality:**

- Mathematics
- Computer Science

**3). How would you rate your proficiency in English?**

- Low
- Average
- Good
- Very good

4). How often do you use English outside of the classroom?

- Daily
- Occasionally
- Rarely
- Never

5). Do you agree with the use of English in scientific fields?

- Yes
- No

6). How do you feel about the transition to English as the primary language of instruction?

- Excited
- Optimistic
- Neutral
- Apprehensive
- Resistant

7). To what degree do you believe the implementation of English as a medium of instruction is crucial in the scientific field?

- Extremely crucial
- Crucial
- Normal
- Not crucial at all

Please state why: .....

8). Do you perceive the academic language shift this year as:

- More challenging for learning
- More beneficial for learning
- Beneficial for learning yet challenging
- Neither challenging nor beneficial for learning
- Detrimental

9). Do you believe the transition to the English language:

- A. Positively impacts my academic performance
- B. Does not have an impact on my academic performance
- C. Negatively impacts my academic performance

Please specify your choice (A, B, C) state why: .....  
.....

10). Do you face any difficulties in your courses because of your English-language level?

- Yes
- No

If yes, what are they?

- Limited vocabulary
- Difficult terminology
- Comprehension issues
- Pronunciation difficulties
- All of the above

Other (please specify): .....

11). Did you find the Ministry of Higher Education’s platform introduced in summer 2023 helpful in enhancing your English level to reach B2 level or to improve your English proficiency?

- Yes
- No
- I'm not aware of it

12). Do you feel that the English taught in pre-university education (primary school, middle school, and secondary school) is adequate for pursuing university-level studies in scientific fields?

- Yes
- No



If the answer is “No” please state why: .....

**13).** How do you find the English language courses provided by your department?

- Supportive, particularly within the specialized domains of mathematics and computer science
- Not Supportive

**14).** Are there any other services offered by your department or university to assist you with English language support?

- Yes
- No


If the answer is Yes, specify these services: .....

**15).**What strategies or resources do you think would assist in creating a more supportive environment for students adapting to English-medium instruction?

.....  
.....


## Appendix 8


### Students' Questionnaire in French




### Questionnaire pour les étudiants de L1 en Mathématiques et Informatique

Ce questionnaire fait partie d'une étude de recherche de Master qui vise à examiner le récent changement de langue dans l'enseignement supérieur, plus précisément dans les domaines scientifiques. Ce changement implique une transition du **français** vers l'**anglais** comme langue principale d'instruction. Vos précieux points de vue sur ce changement linguistique sont cruciaux pour cette étude. Vous êtes cordialement invités à remplir ce questionnaire.

ines2812g@gmail.com [Changer de compte](#) 

 Non partagé

[Suivant](#)  Page 1 sur 2 [Effacer le formulaire](#)

N'envoyez jamais de mots de passe via Google Forms.

Ce contenu n'est ni rédigé, ni cautionné par Google. [Signaler un cas d'utilisation abusive](#) - [Conditions d'utilisation](#) - [Règles de confidentialité](#)

#### Définition des termes

Les termes "**langue d'instruction**" et "**moyen d'enseignement**" font référence à la langue utilisée pour l'enseignement et l'apprentissage dans les établissements et les institutions éducatives. Ils représentent aussi la langue principale utilisée par les enseignants pour partager des connaissances, transmettre des informations et interagir en classe.

## Appendix 8 (Continued)

**1- Genre : \***

- Masculin
- Féminin

**2- Votre spécialité : \***

- Mathématiques
- Informatique

**3- Comment évalueriez-vous votre maîtrise de l'anglais ? \***

- Très bon
- Bon
- Moyen
- Faible

**4- À quelle fréquence utilisez-vous l'anglais en dehors de la classe ? \***

- Quotidiennement (Tous les jours)
- Occasionnellement (De temps en temps)
- Rarement
- Jamais

**5- Êtes-vous d'accord avec l'utilisation de l'anglais dans les domaines scientifiques? \***

- Oui
- Non

**6- Que pensez-vous de la transition vers l'anglais en tant que langue principale d'enseignement ? \***

- Excité
- Optimiste
- Neutre
- Inquiet
- Résistant

**7- Dans quelle mesure croyez-vous que la mise en œuvre de l'anglais comme moyen d'enseignement est important dans le domaine scientifique? \***

- Extrêmement important
- Important
- Normal
- Pas du tout important

**Veillez préciser pourquoi : \***

Your answer \_\_\_\_\_

**8- Percevez-vous le changement de langue cette année comme : \***

- Plus difficile pour l'apprentissage
- Plus bénéfique pour l'apprentissage
- Bénéfique pour l'apprentissage mais difficile
- Ni difficile ni bénéfique pour l'apprentissage
- Dommageable

## Appendix 8 (Continued)

**9- Pensez-vous que la transition vers la langue anglaise :** \*

- A- A un impact positif sur mes performances académiques
- B- N'a pas d'impact sur mes résultats universitaires
- C- A un impact négatif sur mes résultats universitaires

**Veillez préciser votre choix (A, B ou C) et expliquer pourquoi :** \*

Your answer \_\_\_\_\_

**10- Rencontrez-vous des difficultés dans vos cours à cause de votre niveau d'anglais ?** \*

- Oui
- Non

Si **Oui**, quelles sont-elles ?

- Vocabulaire limité
- Terminologie difficile
- Problèmes de compréhension
- Difficultés de prononciation
- Tout ci-dessus

Autre (veuillez préciser) :

Your answer \_\_\_\_\_

**11- Avez-vous trouvé la plateforme du ministère de l'Enseignement supérieur introduite à l'été 2023 utile pour améliorer votre niveau d'anglais pour atteindre le niveau B2 ou pour améliorer votre compétence en l'anglais?** \*

- Oui
- Non
- Je n'en suis pas au courant

**12- Pensez-vous que l'anglais enseigné dans l'enseignement pré-universitaire (primaire, CEM et secondaire) est adéquat pour poursuivre des études universitaires dans les domaines scientifiques?** \*

- Oui
- Non

Si la réponse est **Non**, veuillez expliquer pourquoi :

Your answer \_\_\_\_\_

**13- Comment trouvez-vous les cours d'anglais proposés par votre département ?** \*

- Soutenant, surtout dans les domaines spécialisés des mathématiques et de l'informatique
- Non Soutenant

## Appendix 8 (Continued)

**14- Y a-t-il d'autres services offerts \*  
par votre département ou votre  
université pour vous aider avec un  
soutien en anglais?**

Oui

Non

Si la réponse est **Oui**, précisez ces  
services :

Your answer

**15- Selon vous, quelles stratégies ou \*  
ressources pourraient aider à créer  
un environnement plus favorable  
pour les étudiants s'adaptant à  
l'enseignement en anglais?**

Your answer

Page 2 of 2

Back

Submit

Clear form

Never submit passwords through Google Forms.

This content is neither created nor endorsed by Google.  
[Report Abuse](#) - [Terms of Service](#) - [Privacy Policy](#).

Google Forms



## Appendix 9

### Teachers' Semi-Structured Interview Questions in English

Dear Teacher,

Thank you for taking the time to participate in this study. Be assured that our conversation will remain confidential, and the information you share will be used only for research purposes. Your identity will not be referenced at any point during the research.

This year has witnessed a significant academic language policy shift in higher education, particularly within the scientific field, transitioning from French to English as the medium of instruction. The medium of instruction refers to the language used in teaching. Therefore, the aim of this interview is to explore the challenges encountered by teachers and their attitudes towards this language shift. To begin, let's discuss your background information.

**Question 01:** Can you provide some background information about yourself, including your age, academic qualifications (e.g. magister, doctoral degree, etc.), employment status (part-time or full-time), and the subjects or courses you currently teach?

**Question 02:** Could you share details about your teaching background and experience, specifying the number of years you have been teaching?

**Question 03:** What is your opinion on the shift from using French as the medium of instruction to English in Algerian higher education?

**Question 04:** How has the introduction of English as the medium of instruction influenced your teaching experience?

**Question 05:** Have you received any specific training or professional development to teach in English?

**Question 06:** As a teacher who used to teach in French, what are the challenges that you are facing when shifting to use English? And how do you intend to overcome them?

**Question 07:** According to you, what challenges do students encounter when using English as a medium of instruction?

**Question 08:** What strategies or techniques have you found most effective in facilitating students' comprehension and engagement with scientific content delivered in English?

**Question 09:** From your perspective, what benefits does English offer as a medium of instruction for the university?

**Question 10:** Could you provide suggestions to enhance the integration and seamless transition of EMI in scientific fields?

## Appendix 10

### Teachers' Semi-Structured Interview Questions in French

#### Questions d'entretien semi-structurées pour les enseignants

Cher professeur,

Merci d'avoir pris le temps de participer à cette étude. Soyez assuré que notre conversation restera confidentielle et que les informations que vous partagerez seront utilisées uniquement à des fins de recherche. Votre identité ne sera mentionnée à aucun moment pendant la recherche.

Cette année, l'enseignement supérieur a connu un important changement linguistique, en particulier dans le domaine scientifique, passant du français à l'anglais comme moyen d'enseignement. Le moyen d'enseignement fait référence à la langue utilisée dans l'enseignement. L'objectif de cet entretien est donc d'explorer les défis rencontrés par les enseignants et leurs attitudes envers ce changement linguistique. Pour commencer, discutons de vos renseignements généraux.

**Question 01 :** Pouvez-vous partager des informations générales sur vous-même, notamment votre âge, vos qualifications universitaires (par exemple, magistère, doctorat, etc.), votre situation d'emploi (temps partiel ou temps plein) et les matières ou les cours que vous enseignez actuellement ?

**Question 02 :** Pourriez-vous partager des détails sur vos antécédents et votre expérience en enseignement, en précisant le nombre d'années pendant lesquelles vous avez enseigné ?

**Question 03 :** Quelle est votre opinion sur le passage de l'utilisation du français comme langue d'enseignement à l'anglais dans l'enseignement supérieur algérien ?



**Question 04 :** Comment l'introduction de l'anglais comme moyen d'enseignement a-t-elle influencé votre expérience d'enseignement ?

**Question 05 :** Avez-vous reçu une formation ou un développement professionnel spécifique pour enseigner en anglais ?

**Question 06 :** En tant qu'enseignant qui avait l'habitude d'enseigner en français, quels sont les défis auxquels vous êtes confronté lors du passage à l'utilisation de l'anglais ? Et comment comptez-vous les surmonter ?

**Question 07 :** Selon vous, quels défis les étudiants rencontrent-ils lorsqu'ils utilisent l'anglais ?

**Question 08 :** Quelles stratégies ou techniques avez-vous trouvées les plus efficaces pour faciliter la compréhension et l'engagement des étudiants avec le contenu scientifique dispensé en anglais ?

**Question 09 :** D'après vous, quels avantages l'anglais offre-t-il en tant que langue d'enseignement à l'université ?

**Question 10 :** Pouvez-vous proposer des suggestions pour améliorer l'intégration et la transition harmonieuse de l'anglais comme moyen d'enseignement dans les domaines scientifiques ?

## Appendix 11

### Observation Grid

Date:	Timing:	Location:	
Observer:	Speciality:	Level:	Module:

<b>Areas of Observation</b>	<b>Notes</b>
<b>Language Use:</b> The language(s) used by teachers and students during the session.	
<b>Teacher's Proficiency in Content Delivery:</b> Teacher delivers content effectively in English (the ability to convey complex concepts in English).	
<b>Materials and Resources:</b> If there are specific materials or resources designed to aid in language transition.	
<b>Teacher-Student Interaction:</b> How students and teachers interact with each other effectively, any challenges or reluctance in expressing themselves in English.	
<b>Student Engagement:</b> If students actively participate in discussions and activities.	

<b>Classroom Environment:</b> The overall classroom environment during the session the comfort level of students and their attitudes toward the language shift.	
<b>Difficulties encountered</b>	

## Appendix 12

A photograph of blackboard showing the use of English (Written by the teacher during the tutorial session)

DW N°1

Ex06: The following table gives the distribution of 150 trainees according to the language chosen and the sporting activity chosen. We choose a student at random:

	Tennis	Horseshoe	Sailing	Total
English	45	18	27	90
German	33	9	18	60
Total	78	27	45	150

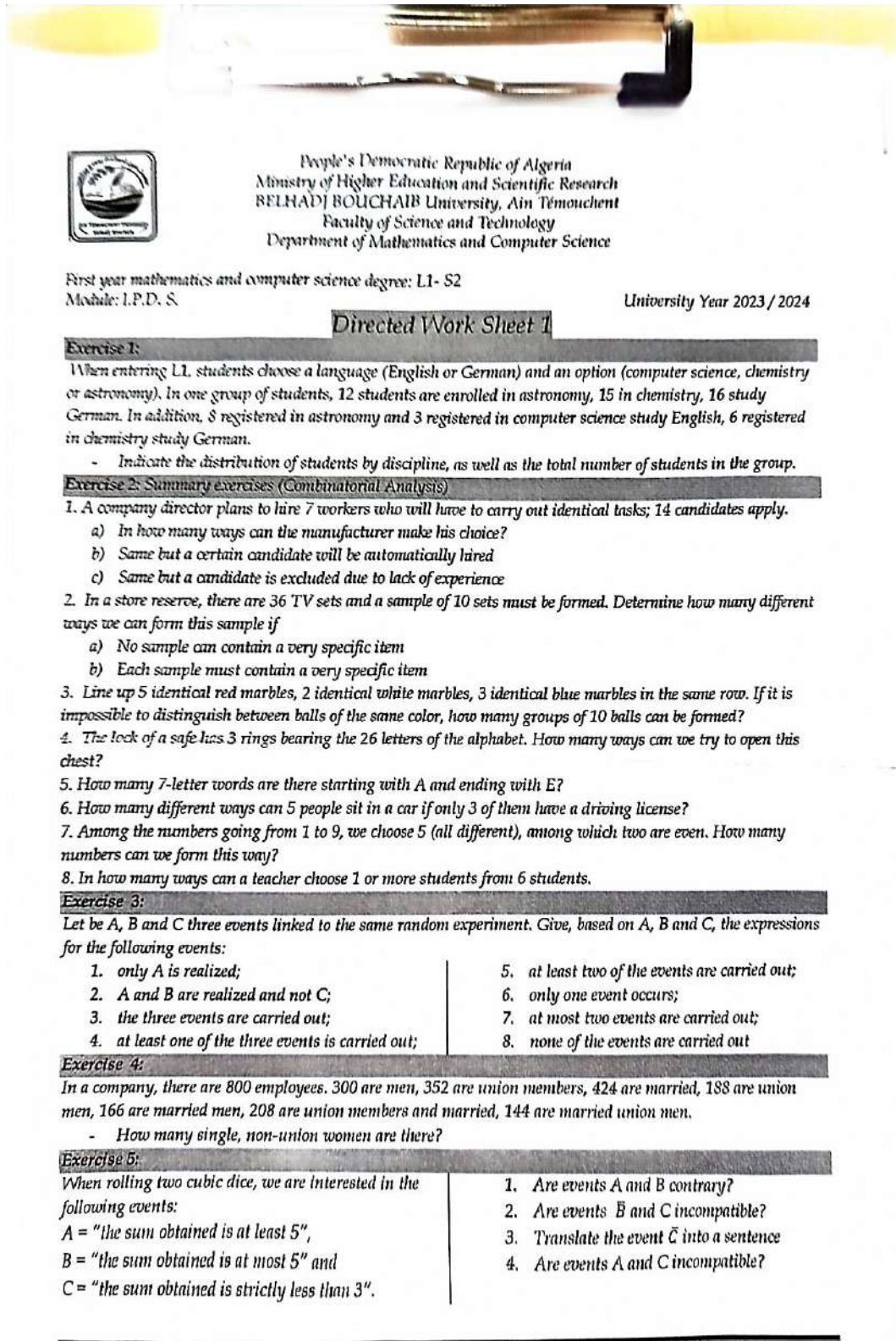
Q:

- 1) Are the "Study German" and "play tennis" events independent?
- 2) Are the "Study English" and practice sailing" events independent?

trainer l'intrane  
one trainee  
two trainees

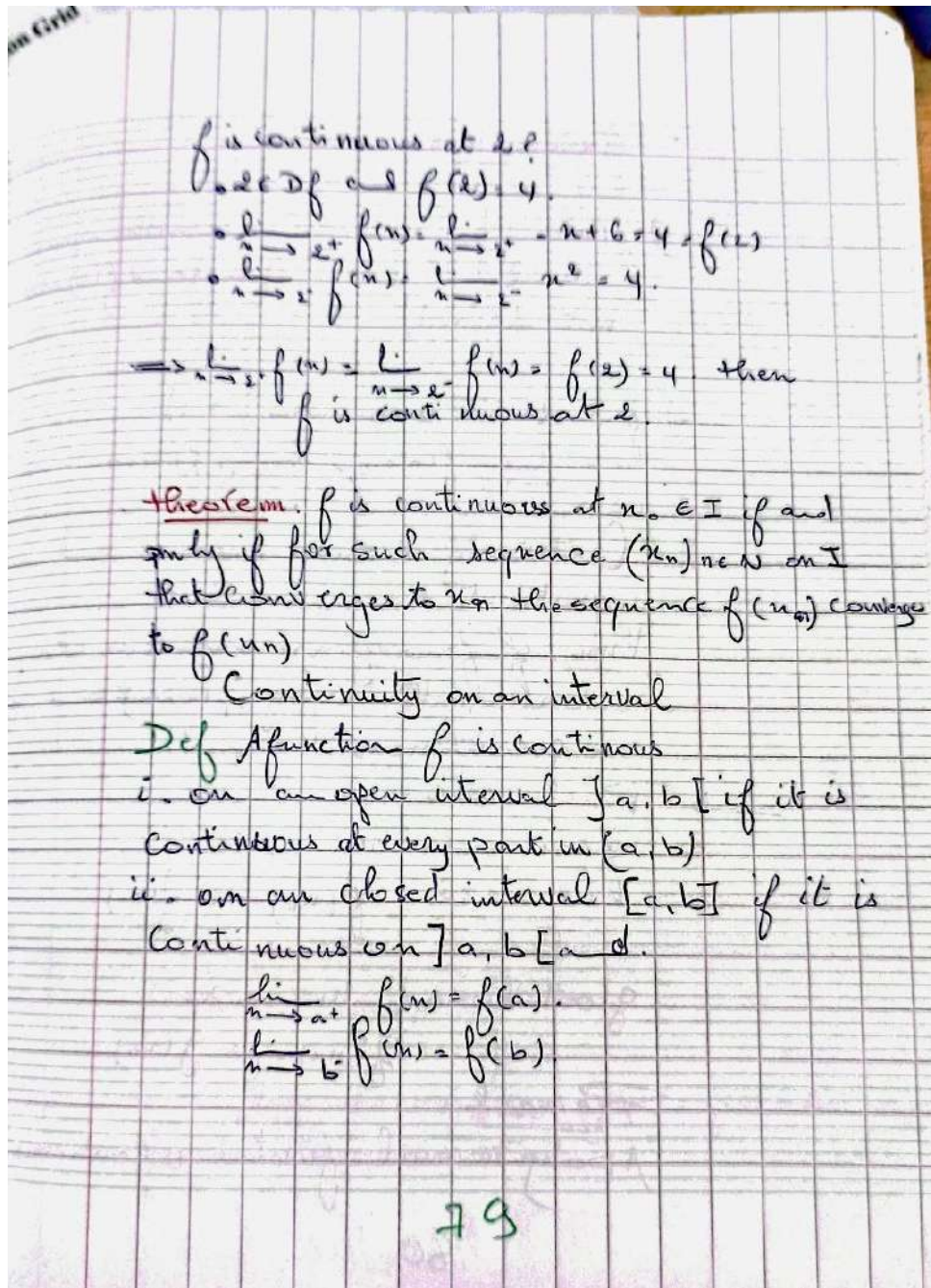
# Appendix 13

## A photograph of Tutorial Sheet in English



## Appendix 14

### A photograph of student's copybook



تتناول هذه الدراسة تطبيق اللغة الإنجليزية كوسيلة أساسية للتعليم محل الفرنسية في المجالات العلمية في التعليم العالي الجزائري، وتحديدًا في الرياضيات وعلوم الكمبيوتر في جامعة عين تموشنت بلحاج بوشعيب. تكشف النتائج عن مواقف إيجابية للطلاب والمعلمين تجاه تطبيق اللغة الإنجليزية كوسيلة للتعليم، ولكنها تسلط الضوء أيضًا على التحديات الناشئة عن ضعف إتقان اللغة الإنجليزية ونقص التدريب على التدريس باللغة الإنجليزية. تشمل التوصيات توفير تدريب للمعلمين على أساليب التدريس باللغة الإنجليزية، ومراجعة مناهج اللغة الإنجليزية في المراحل ما قبل الجامعة، وإدماج تكنولوجيا التعليم في الفصول الدراسية لتعزيز استخدام اللغة الإنجليزية كوسيلة تعليمية.

**الكلمات المفتاحية:** اللغة الانجليزية كوسيلة للتعليم، التعليم العالي، التحديات، التوصيات.

## Résumé

Cette étude examine la mise en œuvre de l'anglais comme moyen d'enseignement et d'apprentissage remplaçant le français dans les domaines scientifiques de l'enseignement supérieur Algérien, en particulier en mathématiques et en informatique à l'université de Ain Temouchent Belhadj Bouchaib. Les résultats révèlent des attitudes positives des étudiants et des enseignants à l'égard de l'anglais comme moyen d'enseignement, mais mettent également en évidence les défis découlant d'une maîtrise limitée de l'anglais et un manque de formation à l'enseignement utilisant l'anglais. Les recommandations comprennent la formation des enseignants sur la pédagogie d'enseigner en anglais, la révision des programmes d'anglais pré-universitaires, et l'intégration de la technologie éducative dans les classes pour améliorer la mise en œuvre de l'anglais comme moyen d'enseignement et d'apprentissage.

**Mots clés :** L'anglais comme moyen d'enseignement et d'apprentissage, L'enseignement supérieur algérien, les défis, Les recommandations.

## Summary

This study investigates the implementation of English as the medium of instruction (EMI) replacing French in scientific fields in Algerian higher education, specifically in mathematics and computer science at the University of Ain Temouchent Belhadj Bouchaib. The findings reveal positive attitudes of students and teachers towards EMI but also highlight challenges arising from limited English language proficiency and a lack of training in teaching in English. Recommendations include providing teacher training on EMI pedagogy, revising pre-university English curricula, and integrating educational technology in the classroom to enhance EMI implementation.

**Key words:** English as the medium of instruction (EMI), challenges, Recommendations.